



- Biodiversity Books**
- Bat Survey**
- Nest Boxes & Habitats**
- Optics**
- Ornithology**
- Wildlife Photography**
- Sound Recording**
- Trapping & Telemetry**
- Microscopes & Hand Lenses**
- Laboratory & Sample Storage**
- Entomology**
- Aquatic Survey**
- Waterproof Stationery**
- Botany**
- GPS & Landscape Survey**
- Lamps & Torches**
- Environmental Monitoring**
- Outdoor Clothing & Travel**
- Education**
- Rental**



“When you have seen one ant, one bird, one tree, you have not seen them all”
- E.O. Wilson



“Wherever you are in the world, NHBS is ready to help supply everything you need for your fieldwork, lab work, wildlife travel and study”



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Everything you need for wildlife, science and environment - over 122,000 natural history products to choose from.



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We reply to 99% of emails the same working day and work really hard to answer all queries as quickly, and as fully as possible.



NHBS Ltd, 1-6 The Stables, Ford Road, Totnes, Devon TQ9 5LE, UK



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WELCOME

Wherever you are in the world, NHBS is ready to help supply everything you need for your fieldwork, lab work, wildlife travel and study. This catalogue gives an overview of the range of books and equipment products in stock at www.nhbs.com.

What does NHBS do? Our core purpose is:

To contribute to the discovery, understanding and conservation of biodiversity and natural ecosystems.

Our Customer Services team are available to help with invoicing and order queries, help choosing equipment and technical support - we look forward to speaking with you.

Best wishes,

Dr Nigel Massen

Managing Director



6 REASONS TO SHOP AT NHBS

1

Supporting Conservation

Our involvement in the Gratis Books Scheme has delivered thousands of book donations to ecologists and students in developing countries. Your orders help support this work.

2

Huge stocked product range

We stock a huge range of equipment for ecology, field biology and habitat mitigation, as well as the world's largest range of natural history books.

3

Amazing customer service

Our staff are on hand to help online, by phone, email, fax or via post. We have a passionate interest in wildlife, science and the environment and enjoy answering your questions and helping you find the right product.

4

Rapid international service

We stock many thousands of wildlife books and other products so that we can offer quick delivery anywhere in the world from our warehouse in the UK. For those in a hurry we offer a global express service.

5

Specialist advice and support

With three ecologists on the team, we're able to provide specialist advice to make sure you get the right equipment for the job.

6

Our core values

NHBS exists to contribute to the discovery, understanding and conservation of biodiversity and natural ecosystems. Everything we do is focused on that.

WE ARE PROUD TO SUPPLY YOU WITH ALL THE BOOKS & EQUIPMENT YOU NEED

Ecological Consultants

We stock everything you need for protected species surveys and mitigation, as well as conservation handbooks and species ID guides.

**Amateur Naturalists**

Whether you are into birds, bats, bryophytes, bees, bromeliads, butterflies, beetles or bacteria, we have all the books and field equipment you need to enjoy natural history.

**Academic Ecologists**

We supply a diverse range of lab and field biology books and equipment suitable for both undergraduate teaching and academic research.

**Expedition Leaders**

From mosquito protection and repellent, first aid kits, wildlife watching clothing and torches - we can outfit a safari or trek no matter where you're going.

**Protected Area Managers**

From surveys of tropical forests to wetland restoration projects, we have the equipment you need to monitor and enhance habitats.

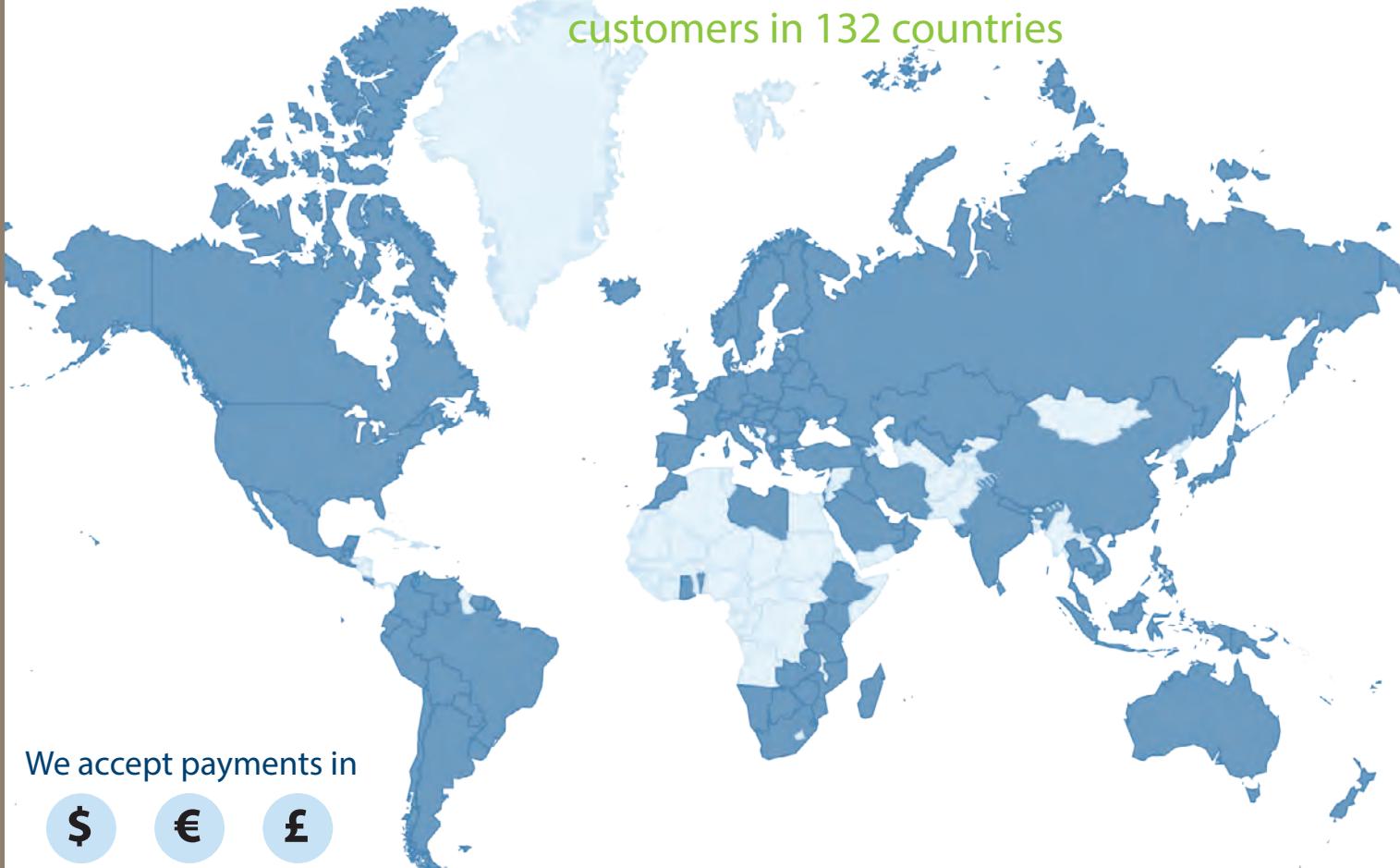
**Schools and other Educators**

Our range of pond-dipping sets, bug-hunting kits and rock-pooling sets come in individual and class sizes. We also have a huge range of wildlife books for naturalists of all ages.



WE DELIVER WORLDWIDE

In 2014 NHBS sent books & equipment to customers in 132 countries



We accept payments in





WE ARE HERE TO HELP

Damaged, Faulty or Incorrect Items

Please notify our customer services department within 14 days of receipt of any damaged, defective or incorrect goods. Before returning any items ordered from NHBS please contact Customer Services to obtain a Returns Authorisation Number (RAN). NHBS will provide a FREEPOST return address (UK) or reimburse reasonable postage costs.

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If you are unhappy with your purchase for any reason, you can return it to us for a refund. The item must arrive with us in its original condition and original packaging, or we will not be able to issue a refund. Items can be returned to NHBS up to 14 days after receipt of goods no reason to return needs to be given during this period. Please note that this does not include sealed audio, DVD, video or

software products that have been opened and are not deemed faulty. Built-to-Order and Special Order items are not returnable unless they are faulty.

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Special Order or Built to Order items are specialist items that NHBS does not normally hold in stock. We are very happy to order these items for you on receipt of prepayment or a purchase order - please contact our customer services department for information about delivery times and to discuss your specific needs well in advance of your project start date. Once confirmed, orders for Special Order and Built to Order items cannot be cancelled or returned unless the item is found to be faulty on receipt.



HOW TO ORDER FROM NHBS

Purchase Orders

We accept purchase orders from companies and institutions in any format: paper, email, fax and EDI. Your purchase order and tax information will be quoted on invoices.

Credit Accounts

Please contact customer.services@nhbs.com to apply for a credit account. We offer credit accounts to companies and institutions when customers buy using official purchase orders.

Tenders and Quotations

We are happy to provide quotations and proformas as part of a tender or project planning/grant application process. Please call us, email customer.services@nhbs.com or use www.nhbs.com and select the 'proforma invoice' or 'quotation' option on the 'payment' page of the online ordering system.

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Prices in this catalogue are correct at the time of going to print, but are subject to change without notice. USD and EURO pricing is approximate. Check www.nhbs.com for the latest prices. Full terms and conditions can be found at <http://www.nhbs.com/help/view/terms-and-conditions-privacy-policy>

At NHBS we understand both a wide range of equipment and fast delivery are crucial for your work. We have an extensive range of conservation, survey and mitigation equipment in stock to ensure rapid delivery and we now also provide an equipment rental service. Whether you're part of a large consultancy or organisation, or working on your own, NHBS is proud to support you. So, whether you're after the most advanced bat detectors, nest boxes by the pallet-load or a single pipette, we're here to help. If we don't have what you are looking for please get in touch (customer.services@nhbs.com) and we will try to find the equipment you need.



NHBS is a responsible retailer - use of some the products we sell is licensed in the UK and we ask customers to supply copies of their license which we hold on file. For customers working in a country with no licensing scheme we seek proof of affiliation to a research centre or relevant NGO. Give us a call, or drop us an email with any query about wildlife kit and applications.

Dr Steaphan Hazell

Wildlife Equipment Manager

CONTENTS



136

MOTH TRAPS

Biodiversity Books

Conservation and Ecology Books 08

Bat Survey

Bat Detecting News 14

Heterodyne Detectors 16

Frequency Division Detectors 18

Time Expansion Detectors 19

Zero-crossing Detectors 20

Active Full Spectrum Detectors 22

Ultrasound Microphones 24

Bioacoustics Software 25

Passive Full Spectrum Detectors 26

Bat Workers Accessories 30

Traps and Nets 34

Bat Books 36



Nest Boxes & Habitats

Boxes for External Walls 38

Boxes for Ponds, Rivers and Lakes 43

Integrated Bat Roosts 44

Integrated Bird Boxes 46

Bat Roosts for Trees, Hedgerows and Woodland 48

Bird Roosts for Trees, Hedgerows and Woodland 51



14

BAT SURVEY



73

ORNITHOLOGY

Mammal Boxes 56

Habitat Management Books 57

Insect Boxes 58

Bird Tables and Feeders 60

Optics

Infrared Night Vision 62

Thermal Imaging Systems 64

Binoculars 66

Spotting Scopes 72



Ornithology

Bird Survey Equipment 73

Mist Nets 74

Bird Ringing Equipment 76

Ornithology Books 78

Wildlife Photography

TrailMaster Camera Triggers 82

TriggerSmart Camera Triggers 83

Hides and Accessories 84

Photography Books 85

Trail Cameras 86

GoPro Action Cameras 94

Bird Box Cameras 96



38

BAT BOXES



82

WILDLIFE PHOTOGRAPHY



Sound Recording

Sound Recorders 98

Microphones and Preamps 100

Hydrophones 102

Passive Acoustic Recorders 104

Bioacoustics Books 105

Trapping and Telemetry

Humane Mammal Traps 106

Mammal Books 109

Amphibian Survey 112

Reptile Survey 114

Herpetology Books 115

Wildlife Radio Telemetry 116

Microscopes & Hand Lenses

Stereo Microscopes 118

Compound Microscopes 119

Digital Microscopes 120

Hand Lenses and Magnifiers 126



Laboratory & Sample Storage

Lab Supplies 128

Sample Containers 129

Scales and Balances 130



178

GPS & LANDSCAPE SURVEY



62

NIGHT VISION



132

INSECT NETS



120

DIGITAL MICROSCOPES

Entomology

Insect Nets	132
Butterfly and Moth Books	135
Moth Traps	136
Malaise Traps	139
Emergence Traps	140
Berlese Funnels	141
Biogents Mosquito Traps	142
Insect Cages	144
Beating Trays and Pooters	146
Specimen Handling and Storage	148
Entomology Books	150



P134 >>

P136 >>

Aquatic Survey

Hand Nets	154
Sampling Nets	156
Flow Meters and Waterproof Cases	158
Waders and PPE	160
Fish Survey	162
Crayfish Survey	163
Water Testing	164
Marine and Aquatic Ecology Books	166

Waterproof Stationary

Waterproof Stationary	168
-----------------------	-----

P169 >>



P172 >>

Botany

Botanical Survey Equipment	170
Woodland Management & Survey	172
Botany Books	173

GPS & Landscape Survey

Garmin GPS	178
Compasses	181
Landscape Survey Equipment	182
Soil Survey	184

P180 >>



P181 >>

Lamps & Torches

Lamps	186
Head Torches	188
Torches	190

PETZL Headtorch	P188 >>
SMARTLITE Headtorch	P187 >>

Environmental Monitoring

Data Loggers	192
Atmospheric Data Meters	196

Outdoor & Travel Essentials

Outdoor Clothing	198
First Aid Kits and PPE	200
Mosquito Nets and Repellents	202
Travel Essentials	203
Bags and Cases	204

P203 >>



P200 >>

Education

Pond Dipping	206
Rock Pooling	208
Bug Hunting	210
Forest School	212
Wildlife Garden	214
Classroom / Laboratory	216
Field Studies Essentials	218
Children's Books	220



P211 >>



P219 >>



P216 >>

Rental

Equipment rental	222
------------------	-----



WELCOME

NHBS started life as the Natural History Books Service in London in 1985 with a catalogue of around 500 ornithology books. In the last 30 years the name has been shortened to NHBS but the catalogue has grown enormously to include more than 122,000 titles covering every subject associated with natural history, ecology and conservation.

This catalogue is primarily a showcase for the ecology and biodiversity survey equipment we supply; however, we have included as many of the most important, most relevant and most widely used reference books and field guides as possible. This section includes books that give readers a broad overview of conservation and ecology and the theoretical basis for each discipline as well as books that provide advice on how to design, conduct and analyse your research. Subject specific books are listed at the end of each equipment section providing you with a selection of the books bought most frequently with the equipment in each section.

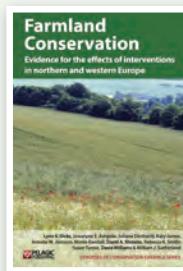
Best wishes,

Dr Leon Vlieger

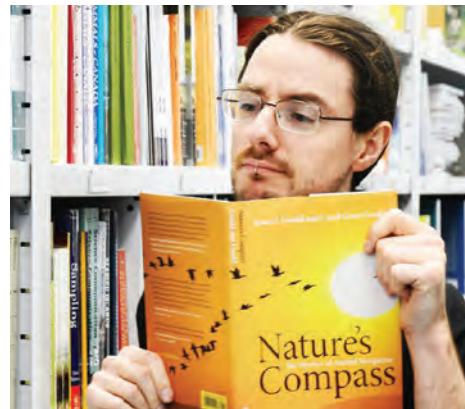
Book Catalogue Editor

Conservation Evidence Series

This exciting new series provides synopses of conservation evidence for particular species groups, habitats or issues, and brings together all the evidence for given interventions. The series will gradually build into a comprehensive summary of evidence on the effects of conservation interventions for all biodiversity throughout the world. It is hoped that, with evidence more accessible, the practice of conservation will be able to become more evidence-based.



Farmland Conservation	(2014)
211094	PBK
	\$54
	€47
	£34.99
Bird Conservation	(2013)
203496	PBK
	\$54
	€47
	£34.99
Bee Conservation	(2010)
186713	PBK
	\$31
	€27
	£19.99
Bat Conservation	(2014)
211090	PBK
	\$31
	€27
	£19.99
Amphibian Conservation	(2014)
211092	PBK
	\$46
	€41
	£29.99

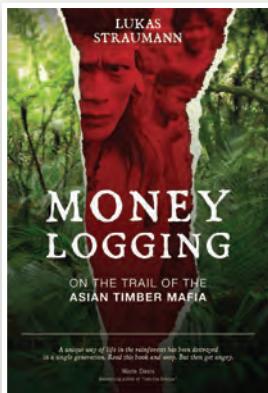


Please take a look at www.nhbs.com to discover more about the full range of books available.

CONSERVATION & BIODIVERSITY

Money Logging: On the Trail of the Asian Timber Mafia

Lukas Straumann (2014)



Money Logging investigates what Gordon Brown has called "probably the biggest environmental crime of our times" – the massive destruction of the Borneo rainforest by Malaysian loggers. Historian and campaigner Lukas Straumann goes in search not only of the lost forests and the people who used to call them home, but also the network of criminals who have earned billions through illegal timber sales and corruption.

217409 PBK

\$31 €27 £19.90

CLIMATE CHANGE & CONSERVATION

Birds and Climate Change: Impacts and Conservation Responses

James Pearce-Higgins and Rhys Green (2014)

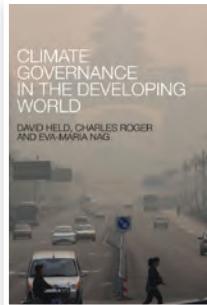
A critical review of the impacts of climate change on birds, providing a single source of information for students, scientists, practitioners and policy-makers. Presents new meta-analysis of the impacts of climate change including changes in the timing of migration and breeding and the evidence in support of likely conservation responses. Final chapters assess the threats posed by efforts to deal with climate change.

208970 PBK

**Climate Governance in the Developing World**Ed. by David Held *et al.* (2013)

In Climate Governance in the Developing World, an international group of scholars seeks to address these questions by analysing the experiences of twelve states from across Asia, the Americas and Africa. The authors map the evolution of climate policies in each country and examine the complex array of actors, interests, institutions and ideas that have shaped their approaches.

207182 PBK



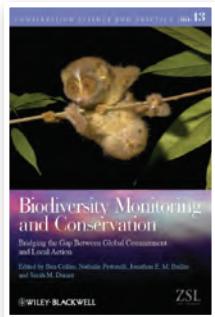
\$28 €24 £17.99

Biodiversity Monitoring and Conservation: Bridging the Gap Between Global Commitment and Local ActionEd. by Ben Collen *et al.* (2013)

This book explores the gap between global commitments to biodiversity conservation, and local action to track biodiversity change and implement conservation action. This multi-disciplinary perspective highlights barriers to conservation and offers novel solutions to evaluating trends in biodiversity at multiple scales.

201540 PBK

\$69 €61 £44.99

**Designing for Biodiversity:** A Technical Guide for New and Existing BuildingsKelly Gunnell *et al.* (2013)

The construction industry has an important role to play in ensuring that buildings are designed and refurbished in a way in which biodiversity can be enhanced. Through written guidance and architectural drawings, this book advises on how to incorporate provision for biodiversity within developments.

206890 PBK

\$46 €41 £29.99

**Techniques in Ecology and Conservation**

A series of practical handbooks in ecology and conservation, published by Oxford University Press. Books in the TECS series outline the main methods and conservation techniques available, bringing them together in a single authoritative source. They are useful for graduate students, researchers and conservationists.

Primate Ecology & Conservation (2013)

201924 PBK \$59 €52 £37.99

Carnivore Ecology & Conservation (2012)

194390 PBK \$59 €52 £37.99

Marine Mammal Ecology & Conservation (2010)

185071 PBK \$59 €52 £37.99

Remote Sensing for Ecology & Conservation (2010)

156444 PBK \$59 €52 £37.99

Insect Conservation (2009)

156448 PBK \$59 €52 £37.99

Amphibian Ecology & Conservation (2009)

178778 PBK \$59 €52 £37.99

Invasive Species Management (2009)

178118 PBK \$59 €52 £37.99

Conservation & Sustainable Use (2007)

165713 PBK \$59 €52 £37.99

Habitat Management for Conservation (2007)

167865 PBK \$59 €52 £37.99

Forest Ecology & Conservation (2007)

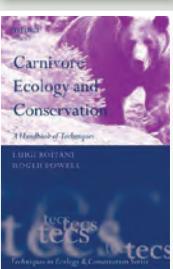
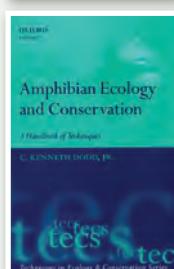
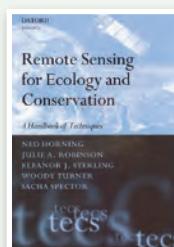
156442 PBK \$59 €52 £37.99

Conservation Education & Outreach Techniques (2006)

153911 PBK \$59 €52 £37.99

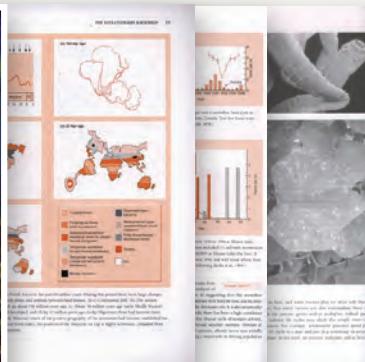
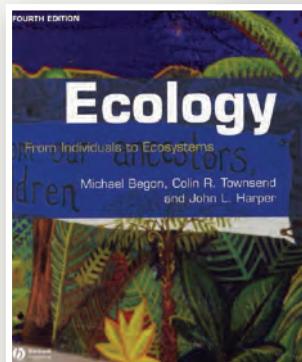
Bird Ecology & Conservation (2004)

144667 PBK \$59 €52 £37.99



CONSERVATION & ECOLOGY BOOKS

ECOLOGY TEXTBOOKS

Ecology: From Individuals to EcosystemsMichael Begon *et al.* (2005)

Begon, Townsend, and Harper's 'Ecology' has long been regarded as the definitive textbook on all aspects of ecology. This new edition provides a comprehensive treatment of the subject, from the first principles of ecology to the current state of the field, and aims to improve students' preparedness to address the environmental problems of the new millennium.

151184 PBK

\$69 €61 £44.99

Food Webs and Biodiversity:

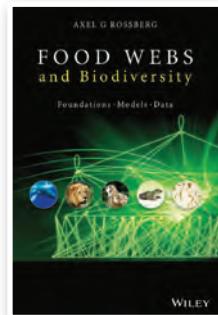
Foundations, Models, Data

Axel G Rossberg (2013)

Food Webs and Biodiversity develops a fresh, comprehensive perspective on food webs. Mechanistic explanations for several known macroecological patterns are derived from a few fundamental concepts, which are quantitatively linked to field-observables. An argument is developed that food webs will often be the key to understanding patterns of biodiversity at community level.

206824 HBK

\$77 €68 £49.99

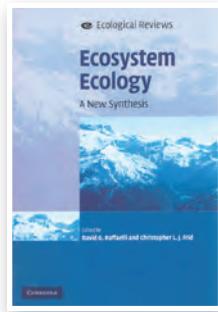
**Ecosystem Ecology: A New Synthesis**

Ed. by David Raffaelli and Christopher Frid (2010)

Written primarily for researchers and graduate students in ecology and environmental management, this book provides an accessible discussion of some of the most important aspects of ecosystem ecology and the potential relationships between them. Bridging the natural, physical and social sciences, this book will be welcomed by both theoretical researchers and practical conservationists.

183404 PBK

\$54 €47 £34.99



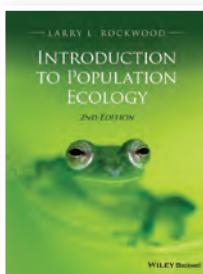
POPULATION ECOLOGY

Introduction to Population Ecology

Larry L Rockwood (2015)

Coverage includes: discussion of field and laboratory data to illustrate the fundamental laws of population ecology; overview of how population theory has developed. Explores single-species population growth and self-limitation; metapopulations; and a broad range of interspecific interactions including parasite-host, predator-prey, and plant-herbivore. Controversies in population ecology are brought fully up to date in this edition with many brand new and revised examples and data.

218786 PBK



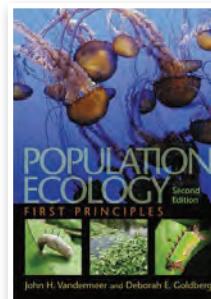
\$62 €54 £39.99

Population Ecology: First Principles

John H Vandermeer and Deborah E Goldberg (2013)

John Vandermeer and Deborah Goldberg show that populations are more than simply collections of individuals. Mathematical models have to deal with complex variables such as distribution and territory for expanding groups. This book builds these models from the ground up using a broad range of empirical examples. They address a host of exciting topics along the way, including age-structured populations, spatially distributed populations, and metapopulations.

206583 PBK



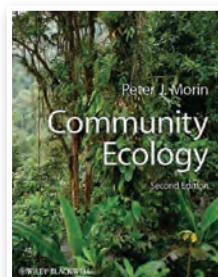
\$80 €70 £51.99

Community Ecology

Peter J Morin (2011)

This book introduces a range of concepts and theories central to community ecology, using examples from terrestrial, freshwater and marine with a focus on animal, plant and microbial species. The historical development of key concepts is explained by descriptions of classic studies, whilst exciting new developments in recent studies are used to point toward future advances in our understanding of community organisation.

157428 PBK



\$62 €54 £39.95

EVOLUTIONARY ECOLOGY

Visual EcologyThomas W Cronin *et al.* (2014)

Visual Ecology is the most up-to-date overview of visual ecology available. It guides readers from the basic physics of light to the role of visual systems in animal behaviour and includes a glossary and a wealth of real-world examples. Features 225 illustrations, including more than 140 in colour, spread throughout the text. An excellent resource for researchers and students alike.

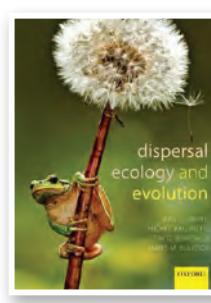


\$76 €66 £48.95

Dispersal Ecology and EvolutionEd. by Jean Clobert *et al.* (2012)

Dispersal Ecology and Evolution discusses the causes, mechanisms, and consequences of dispersal at the individual, population, species, and community levels. Perspectives and insights are offered from the fields of evolution, behavioural ecology, conservation biology, and genetics. Examples are included from a wide range of plant and animal species.

196874 PBK

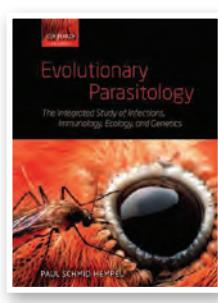


\$65 €57 £41.99

Evolutionary Parasitology: The Integrated Study of Infections, Immunology, Ecology, and Genetics

Paul Schmid-Hempel (2011)

This novel book provides the first comprehensive overview of the many facets of host-parasite interactions, from the molecular bases to adaptive strategies and their ecological and evolutionary consequences. It is informed by the very latest progress in the field.



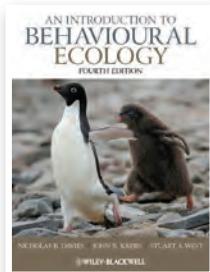
\$49 €43 £31.88

BEHAVIOURAL ECOLOGY

An Introduction to Behavioural EcologyNicholas B Davies *et al.* (2012)

This textbook helped to define the field of Behavioural Ecology. In this fourth edition the text has been completely revised, with new chapters and many new illustrations and colour photographs.

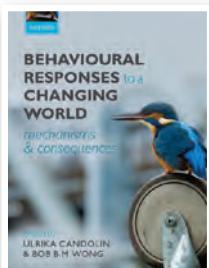
194511 PBK \$54 €47 £34.99

**Behavioural Responses to a Changing World: Mechanisms and Consequences**

Ed. by Ulrika Candolin and Bob Wong (2012)

The first book of its kind devoted to understanding behavioural responses to environmental change. The volume is comprehensive in scope, discussing impacts on both the mechanisms underlying behavioural processes, as well as the longer-term ecological and evolutionary consequences.

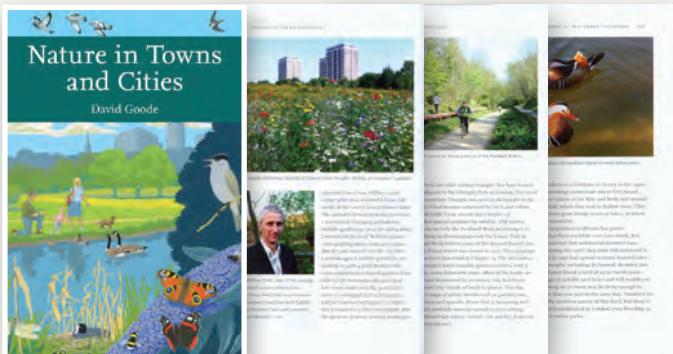
195928 PBK \$59 €52 £37.99



URBAN ECOLOGY

Nature in Towns and Cities

David Goode (2014)



David Goode uses his knowledge of urban ecology to describe the range of habitats and species which exist within urban areas, and shows how our understanding is being applied to encourage a greater variety of nature in towns and cities.

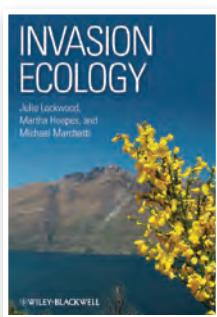
159010 PBK

\$43 €38 £27.99

BIOGEOGRAPHY AND INVASIVE SPECIES

Invasion EcologyEd. By Lockwood *et al.* (2013)

This new edition of Invasion Ecology provides a comprehensive and updated introduction to all aspects of biological invasion by non-native species. Invasion Ecology provides an overview of the invasion process from transportation patterns and causes of establishment success to ecological impacts, invader management and post invasion evolution. There are also new chapters on predicting and preventing invasion, managing and eradicating invasive species, and invasion dynamics in a changing climate.

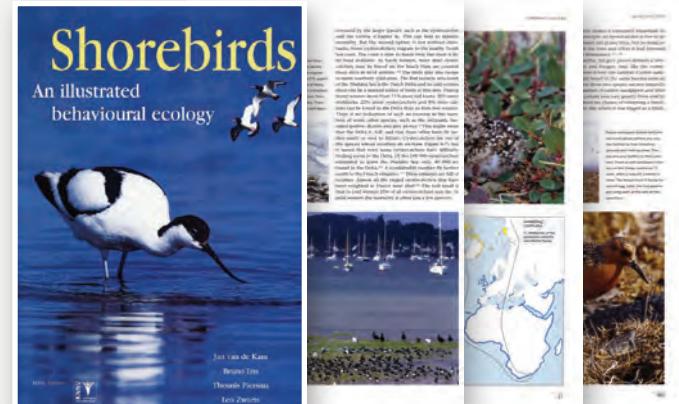
**Conservation Biogeography**

Ed. by Richard Ladle and Robert Whittaker (2011)

Conservation Biogeography provides an authoritative and concise overview of the key themes and emerging concepts in conservation biogeography. It serves as an introduction to the subject and provides a strong framework for more advanced undergraduate or Masters level courses. Concludes with a critical assessment of the scale of the future conservation challenge.

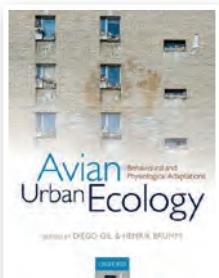
189253 PBK

\$62 €54 £39.95

**Shorebirds: An Illustrated Behavioural Ecology**Jan van de Kam *et al.* (2004)

The migration, feeding and breeding of shorebirds are explained in a comprehensive but simple and visually stunning form. The core of the book is based on studies of shorebirds and other waterbirds that migrate along the East Atlantic Flyway.

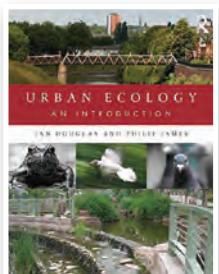
146385 HBK \$73 €64 £46.99

**Avian Urban Ecology: Behavioural and Physiological Adaptations**

Ed. by Diego Gil and Henrik Brumm (2013)

This accessible text focuses on the behavioural and physiological mechanisms which facilitate adaptation and on the evolutionary process that ensues. It discusses topics such as acoustics, reproductive cues, disease, and artificial feeding, and includes a series of case studies illustrating cutting edge research in these areas.

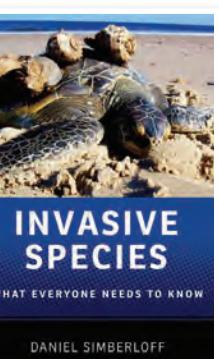
207689 PBK \$58 €51 £37.50

**Urban Ecology: An Introduction**

Ian Douglas and Philip James (2014)

Urban Ecology: An Introduction seeks to open the reader's mind and eyes to the way in which nature permeates everyday urban living, and how it has to be understood, cared for, and managed to make our towns and cities healthier places in which to live and more resilient to environmental and other changes.

214001 PBK \$51 €45 £32.99

**Invasive Species: What Everyone Needs to Know**

Daniel Simberloff (2013)

In Invasive Species: What Everyone Needs to Know, award-winning biologist Daniel Simberloff offers a wide-ranging and informative survey that sheds light on virtually every aspect of these biological invaders. Filled with case studies of an astonishing array of invasive species.

207851 PBK

\$17 €15 £10.99

CONSERVATION & ECOLOGY BOOKS

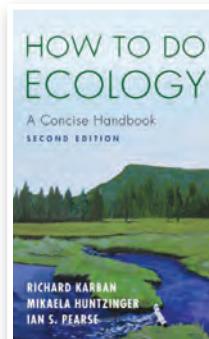
STUDY DESIGN

How to Do Ecology

Richard Karban *et al.* (2014)

How to Do Ecology provides nuts-and-bolts advice on organising and conducting a successful research program. This one-of-a-kind book explains how to choose a research question and answer it through manipulative experiments and systematic observations.

209990 PBK \$26 €23 £16.95

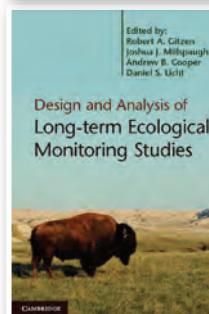


Design and Analysis of Long-term Ecological Monitoring Studies

Ed. by Robert A Gitzel *et al.* (2012)

To provide useful and meaningful information, long-term ecological programs need to implement solid and efficient statistical approaches for collecting and analysing data. This volume provides rigorous guidance on quantitative issues in monitoring, with contributions from world experts in the field.

195849 PBK \$85 €75 £54.99



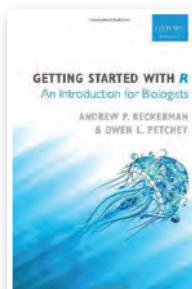
STATISTICS & DATA ANALYSIS

Getting Started with R

Andrew P Beckerman and Owen L Petchey (2012)

Getting Started with R provides a functional introduction for biologists new to R. While teaching how to import, explore, graph, and analyse data, it keeps readers focused on their ultimate goals – communicating their data in oral presentations, posters, papers, and reports.

194874 PBK \$34 €30 £21.99

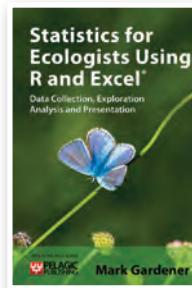


Statistics for Ecologists Using R and Excel

Mark Gardener (2011)

This is a book about the scientific process and how we apply it to data in ecology. Subjects covered include how to plan for data collection, how to assemble data, how to analyse data and finally how to present the results.

192115 PBK \$46 €41 £29.99

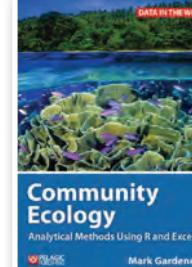


Community Ecology

Mark Gardener (2014)

In Community Ecology: Analytical Methods Using R and Excel you will learn many of the mainstays of community analysis including: diversity, similarity and cluster analysis, ordination and multivariate analyses.

207132 PBK \$62 €54 £39.99

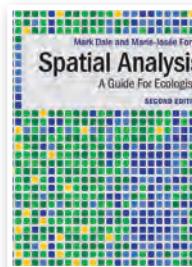


Spatial Analysis

Mark RT Dale and Marie-Josée Fortin (2014)

This book reviews and compares a broad range of methods, enabling students and researchers to identify and apply them correctly. Includes application boxes and examples, showing how the theoretical results are applied to real situations.

211321 PBK \$69 €61 £44.99

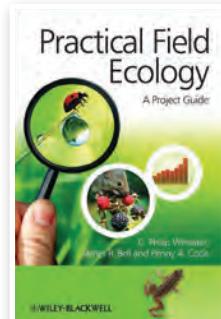


Practical Field Ecology

Charles Philip Wheater *et al.* (2011)

Clearly structured throughout and written in a student-friendly manner, Practical Field Ecology: A Project Guide concentrates on the techniques required to design a field based ecological survey and shows how to execute an appropriate sampling regime.

191053 PBK \$46 €41 £29.95

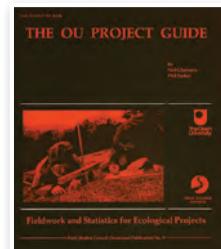


The OU Project Guide

Neil Chalmers and Phil Parker (1989)

The OU Project Guide lays special emphasis on the planning phase – on the need to consider the eventual statistical analysis of the data so that the design of the fieldwork facilitates rather than complicates the later phase of the project. Because statistical procedures cause so many problems for biologists, a large section of The OU Project Guide was written to dispel the mystique surrounding them.

30526 PBK \$18 €16 £11.50

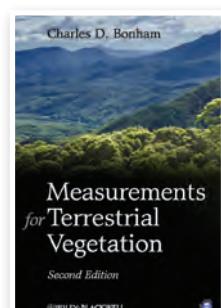


Measurements for Terrestrial Vegetation

Charles D Bonham (2013)

Measurements for Terrestrial Vegetation, 2nd Edition presents up-to-date methods for analysing species frequency, plant cover, density and biomass data. Each method is presented in detail with a full discussion of its strengths and weaknesses.

205227 HBK \$69 €61 £44.99

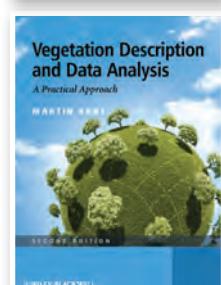


Vegetation Description and Data Analysis

Martin Kent (2011)

Since the publication of the hugely popular first edition there have been significant developments in computer hardware and software, new key journals have been established in the field and scope and application of vegetation description and analysis has become a truly global field.

155987 PBK \$58 €51 £37.50

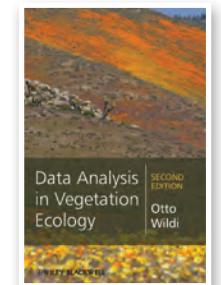


Data Analysis in Vegetation Ecology

Otto Wildi (2013)

Evolving from years of teaching experience by one of the top experts in vegetation ecology, Data Analysis in Vegetation Ecology, 2nd edition explains the background and basics of mathematical (mainly multivariate) analysis of vegetation data.

205222 PBK \$62 €54 £39.95



Biomeasurement

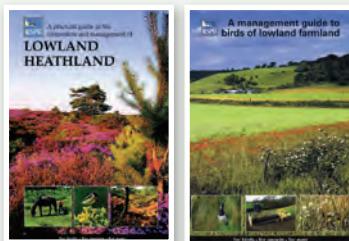
Dawn Hawkins (2014)

The perfect companion for an introductory course in statistics for the life sciences. This book explains why statistics are needed, how to choose and carry out statistical analyses and how to interpret the results.

207903 PBK \$43 €38 £27.99



HABITAT MANAGEMENT



RSPB Management Guides

A series of practical habitat management guides. The guides provide a key source of detailed information on techniques for restoring, maintaining and monitoring different habitats in the UK.

The Fen Management Handbook (2011)

195891 PBK \$15 €14 £9.99

Woodland Management for Birds: Wales (2010)

184275 PBK \$41 €36 £26.50

Woodland Management for Birds (2005)

153793 PBK \$21 €18 £13.46

A Management Guide to Birds of Lowland Farmland (2005)

153795 PBK \$31 €27 £19.99

The Saltmarsh Creation Handbook (2005)

153781 PBK \$46 €41 £29.99

A Practical Guide to the Restoration & Management of Lowland Heathland (2003)

142430 PBK \$28 €24 £17.96

A Practical Guide to the Management of Saline Lagoons (2003)

142431 PBK \$19 €16 £11.99

Habitat Creation Handbook for the Minerals Industry (2003)

141714 PBK \$39 €34 £24.99

European Wet Grassland (1999)

93437 PBK \$25 €22 £15.95

Reedbed Management for Commercial & Wildlife Interests (1996)

47471 PBK \$23 €20 £14.95

HABITAT CREATION AND RESTORATION

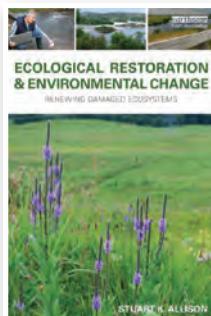
Ecological Restoration and Environmental Change

Stuart K Allison (2014)

Traditionally restorationists often felt that by producing restorations that matched historic ecosystems they were following nature's plans and human agency played only a small part in restoration. This book analyses the paradox arising from the desire to produce ecological restorations that fit within an historical ecological context, produce positive environmental benefits and also result in landscapes with social meaning.

215952 PBK

\$43 €38 £27.99



Our Once and Future Planet

Paddy Woodworth (2013)

At sites ranging from Mexico to New Zealand and Chicago to Cape Town, Woodworth shows us the striking successes (and a few humbling failures) of groups that are attempting to use cutting-edge science to restore blighted, polluted, and otherwise troubled landscapes to states of ecological health.

206810 HBK

\$34 €30 £21.99



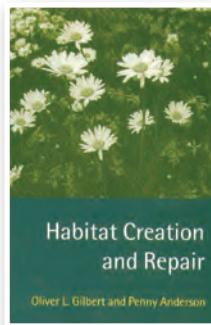
Habitat Creation & Repair

Oliver L Gilbert and Penny Anderson (1998)

Complete guide to habitat creation and repair from the ethics and principles to the practical detail of designing habitats for wildlife. With chapters spanning all the major types of habitat to be found in the UK, the book gives advice on deciding when habitat creation is the correct path to follow, and then covers all steps from site survey through to the final design and actual realisation of the scheme.

70666 PBK

\$86 €76 £55.99



Habitat Management for Conservation

Malcolm Ausden (2007)

Habitat Management for Conservation is a practical handbook which describes the general principles and techniques of managing and creating habitats throughout the world.

167865 PBK

\$59 €52 £37.99



Amphibian and Reptile Conservation Trust Habitat Management Handbook

Paul Edgar et al. (2010–2011)

These handbooks bring together habitat management advice for all native UK reptiles and amphibians (covered separately in two volumes). These are aimed primarily at site managers and those who advise on management and are illustrated by full colour photographs.

190482 Reptile Habitat (PBK) \$20 €18 £12.99

192118 Amphibian Habitat (PBK) \$20 €18 £12.99

Habitat Management for Invertebrates

Peter Kirby (2013)

A practical manual covering management for invertebrates. It provides guidelines to enable reserve managers and conservationists to take account of the vulnerable habitat features so important to invertebrates.

205867 PBK \$46 €41 £29.99



Restoring Tropical Forests

Stephen Elliott et al. (2013)

Restoring Tropical Forests: A Practical Guide is a user-friendly and globally relevant practical guide to restoring forests throughout the tropics. Based on the concepts, knowledge and innovative techniques developed at Chiang Mai University's Forest Restoration Research Unit.

196460 PBK \$49 €43 £31.99

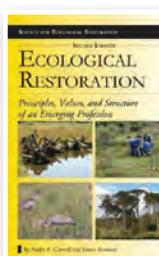


Ecological Restoration

Andre Clewell and James Aronson (2013)

Ecological Restoration has become one of the seminal books in this quickly developing field. This new edition will be an invaluable resource for practitioners and theoreticians from a variety of backgrounds and perspectives from scientists to professional consultants.

199936 PBK \$29 €26 £18.99



Feral

George Monbiot (2014)

This is a book that explodes with wonder and delight. Making use of some remarkable scientific discoveries which transform our understanding of how natural systems work, George Monbiot explores a new, positive environmentalism and shows how damaged ecosystems on land and at sea can be restored.

212832 PBK \$14 €12 £8.99





DETECTING BATS

Bats produce ultrasonic calls that are inaudible to the human ear, in order to navigate their environment, socialise and hunt their prey. The ultrasonic calls bounce off objects, and the reflected sounds (echoes) are detected by the bat's highly sensitive hearing. Because echoes from distant objects take longer to return to the bat than echoes from objects nearby, and echoes from objects to the left of the bat take longer to reach the right ear than the left ear (and vice versa) the bat can build up a picture of their surroundings.

Scientists first realised that bats were able to form an image of their surroundings by interpreting the spatial information within echoes (echolocation) in 1940 using the first ever heterodyne 'sonic receiver' designed by a physics professor at Harvard University to study insect calls. Since 1940, a wide range of technologies have been developed to convert ultrasound to audible sound or simply to record the ultrasound for later analysis. These bat detectors have now become a widely available tool used to both detect the presence of bats and distinguish between different species.

Most people using bat detectors fall into one of two groups, those who are interested in bats simply because they are fascinating creatures, and those involved in professional or academic bat surveys. Heterodyne and / or frequency division detectors are frequently used by both groups, whilst the more expensive time expansion and full spectrum detectors are normally used only by professional bat workers. See below for a brief description of each technology.

TYPES OF BAT DETECTOR

Heterodyne detectors convert ultrasound bat calls into sound audible to human ears by mixing the ultrasound with a carrier wave. They are great for beginners and for rapid identification of some species in the field. Recordings made with heterodyne detectors cannot be used with sound analysis software as the original frequency information is not retained in the recording.

Frequency Division detectors divide the incoming frequency, usually by ten, to give an audible output. Advantages of this type of detector are that all frequencies will be sampled simultaneously, so no calls will be missed, and sounds can be recorded and analysed with specialist software.

Time Expansion detectors digitally record ultrasonic calls and then play them back at a slower rate to give an audible output. This type of detector can only record for a fraction of the time so bats can be missed (the rest of the time is spent processing the signal). However, the quality of the recordings is extremely high.

Full Spectrum detectors record all sounds which means that multiple species and/or harmonics can be recorded simultaneously. They also record continuously so there is no risk of calls being missed. Because they record the original frequency, however, there is no audible output from full spectrum recorders. Most have an additional heterodyne, frequency division or time expansion function to allow you to listen to calls in the field.

How do I identify which bat species I can hear?

There are over 1000 species of bat worldwide, with 17 species found in Britain. If you are using a heterodyne detector there are a few things to bear in mind.

- Each bat echolocates within a specific ultrasonic frequency range and the 'peak' frequency is diagnostic for some species (e.g. 80 kHz for greater horseshoe bats and 110 kHz for lesser horseshoe bats).
- For other species the peak frequency combined with the distinctive type of sound heard using a heterodyne detector (e.g. trills, clicks, slaps) will help in identification, e.g. soprano pipistrelles echolocate with a peak frequency of 55 kHz and when heard with a heterodyne detector tuned at 55 kHz their echolocation calls sound like a rapid series of wet slaps.
- Other clues include the size and shape of the bat, flight pattern, and the habitat in which it is foraging. For example, Daubenton's bats are often seen scooping insects from the surface of lakes and ponds whereas noctules fly fast and straight typically 10–50 m above ground level.
- The calls of some species, including many of the *Myotis* bats, cannot easily be separated even when recorded using a time expansion or full spectrum recorder and viewed as a sonogram.



DEVELOPMENTS IN BAT SURVEY TECHNOLOGY

The past year has seen exciting advances in the world of bat detector technology, with an increased range of detectors and software available to suit all requirements and budgets. The introduction of ultrasound microphones, such as the Echo Meter Touch and Pettersson M500, which connect directly to your phone or tablet have changed the face of transect work. They are also incredibly useful for environmental education, allowing groups to view, as well as listen to bat calls in real time. With the Anabat Walkabout, Titley Scientific have developed this idea even further and offer the first detector to make use of the Android platform. The Song Meter SMZC and Anabat Express have also introduced a new group of low cost zero-crossing passive recorders which have proven popular with bat workers.

Alongside the developments in bat detecting hardware has been advances in analysis software. In particular, the automated analysis offered by Kaleidoscope Pro and UK from Wildlife Acoustics and Batident from ecoObs are going a long way to reduce the time spent analysing large volumes of bat calls.



THERMAL IMAGING SURVEY

Thermal imaging scopes are becoming a popular and effective tool for collecting nocturnal survey data. As technology improves these cameras are becoming much more affordable whilst image resolution is simultaneously improving. Applications for bat workers include obtaining counts of bats emerging from a roost and detection of bats within buildings or in vegetation, where they would otherwise be difficult to observe.

Some thermal imaging scopes such as the Pulsar Quantum S Series cameras, allow you to connect an external recording device. This is extremely useful for surveys where the ability to provide still or video images is required. Scopes cannot see through solid objects such as walls, glass or tree trunks, however, and identification (e.g. between bats and birds in a tree cavity) can be difficult.

For our full range of thermal imaging products please see pages 30, 64 and 65.

HIGH Flier MIST NET SUPPORT SYSTEM

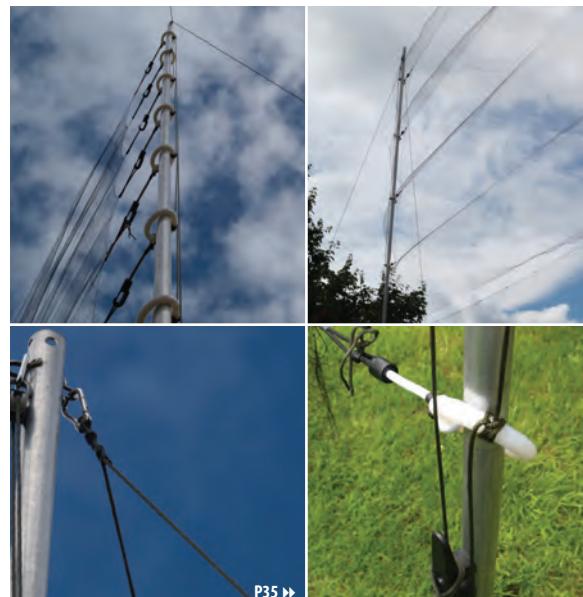
New for 2015, the High Flier Mist Net Support System is designed and manufactured in the U.K. and allows you to operate up to three mist nets at any height from 450mm above the ground to an impressive height of seven metres. This helps to improve catch rates at existing sites and can also make mist netting possible in locations that weren't previously viable. It is easy to erect and has a number of features which ensure that it is hassle-free to use: shock cord links keep the net tension correct and a pulley system enables quick lowering of nets for extraction. The system weighs less than 12kg and a strong carrying bag is included. For full details of the High Flier System, please see page 35.



NEW SCHWEGLER WOODCRETE BAT BOXES

2015 sees the arrival of six new Schwegler woodcrete bat boxes. These have been designed based on more than 30 years of experience creating boxes that are both visually attractive and meet the specific needs of the bats they are designed for.

The 3FN is a modified version of the popular 2FN and features an intermediate floor and small entrance size – both of which provide improved protection from small predators. The 2FS and 3FS Bat Colony Boxes are designed to be used for large colonies of smaller bats and are a great addition to an area where a successful 1FS has been installed. The 3FF is a modified version of the 1FF and has a deeper cavity. It is available with or without an inspection hatch. The large internal cavity makes it suitable for cave-dwelling bats and also for summer mating roost or nursery roosts. The 1FTH and 2FTH Universal Bat Summer Roosts have five roost chambers, each with different spatial and climatic properties, making them suitable for a range of different species.



HETERODYNE DETECTORS



Heterodyne detectors convert ultrasonic bat calls into sound audible to human ears by mixing the ultrasound with a carrier wave.

This has the effect of enhancing the tonality of bat calls giving a fascinating range of ticks, clicks, warbles, and trills. Consequently, heterodyne detectors are great for beginners and for rapid identification of some species in the field. However, recordings made with a heterodyne detector cannot be used with sound analysis software as the original frequency information is not preserved in the recordings.

THINGS TO CONSIDER WHEN BUYING A HETERODYNE BAT DETECTOR

Frequency display - A backlight on the dial allows you to read the frequency more easily in the dark. Some detectors have a digital LCD display, which makes reading the tuned frequency much easier.

Frequency dial - For most heterodyne detectors you will need to tune into the frequency used by each bat species (rather like tuning in to a radio station). A range of 20–120kHz will pick up all European bat species, however, in the tropics some bats echolocate at high frequencies of up to 250kHz. The ability to detect lower frequencies

is useful for some bat species and for tuning in to grasshoppers and crickets as well as some birds (particularly if you have lost some high frequency hearing).

Bandwidth - Traditional heterodyne detectors have a bandwidth of 4–9kHz either side of the tuned frequency. A large bandwidth = a lower chance of missing bats, a small bandwidth = greater accuracy when working out the peak frequency of a bat call. Several detectors (e.g. Elekon's Batscanner detectors and the SSF Bat2) now scan across all frequencies and automatically tune to the peak frequency so there is no chance of missing a bat.

Loudspeaker - Most detectors have a built-in speaker though you will probably want to use headphones at least some of the time.

Headphone socket - Plug in headphones so you can listen without disturbance. The Batscanner Stereo uses two microphones so that you can really get a feel for the movement of bats on even the darkest of nights when using headphones.

Microphone - This picks up the ultrasonic calls, so the type and quality of the microphone determines in part how sensitive the bat detector is. The advanced electret microphones are generally the best, with a flat frequency response and good weatherproofing; most other microphone types are either sensitive at certain frequencies (e.g. at 45kHz) but less so at others or are more sensitive to moisture.

Audio output socket - An audio output socket can be useful if you would like to record bat calls; however, please remember that calls recorded from heterodyne detectors cannot be used to produce sonograms of the original bat calls.

HETERODYNE DETECTORS COMPARISON

MODEL	MANUFACTURER	LCD SCREEN	MICROPHONE TYPE	BAND WIDTH	TUNEABLE RANGE	AUDIO OUTPUT	BATTERY TYPE	PRICE
Bat4	Magenta	No	Electret	± 9kHz	15–130kHz	Yes	4 x AAA	£49.13
Bat5	Magenta	Yes	Electret	± 9kHz	10–130kHz	Yes	4 x AAA	£69.96
D100	Pettersson	No	Electret and ceramic	± 4kHz	10–120kHz	Yes	1 X PP3 9V	£145.83
D200	Pettersson	Yes	Advanced Electret	± 4kHz	10–120kHz	Yes	1 X PP3 9V	£207.50
Batscanner	Elekon	Yes	Advanced Electret	Full Spec.	15–120kHz	No	3 x AAA	£165.83
Batscanner Stereo	Elekon	Yes	Advanced Electret	Full Spec.	15–120kHz	No	3 x AAA	£191.67
Batbox IID	Batbox	Yes	Electret	± 8kHz	19–125kHz	Yes	1 X PP3 9V	£130.21
SSF Bat2	All About Bats	Yes	MEMS	Full Spec.	15–130kHz	No	4 x AA	£145.83

Magenta Bat4 & Bat5 Bat Detector

• High quality budget detectors

These heterodyne detectors are great value and provide an excellent, economical introduction to bat detecting. The Bat4 has a large frequency dial with top illumination and evenly spaced frequency markings for ease of use, while the Bat5 has a digital display with backlit LCD visible in all light conditions. The specially contoured microphone housing provides enhanced high frequency sensitivity. Easy operation with one hand. Built-in LED torch, low-distortion Mylar loudspeaker, headphone socket, line-out (recording) socket. 4 x AAA alkaline batteries (not included). 2-year manufacturer's guarantee. Also available as a Starter kit including four AAA batteries and a FSC Guide to British Bats.



	\$	€	£
171848 Magenta Bat4 Bat Detector	\$76	€67	£49.13
171849 Magenta Bat5 Bat Detector	\$108	€95	£69.96
215869 Magenta Bat4 Starter Kit	\$84	€74	£54.58
215870 Magenta Bat5 Starter Kit	\$116	€102	£74.96
181818 Magenta Bat Detector Case	\$12	€10	£7.49

The Bat Detective: A Field Guide for Bat Detection



It can be difficult to identify bats by their echolocation calls as heard through a bat detector. This book provides a practical introduction to identifying the calls of British bats, and is an excellent reference for the more experienced. Highly recommended if you have just purchased your first heterodyne detector, and for anyone wishing to improve their identification skills.

	\$	€	£
79534 The Bat Detective	\$31	€27	£19.99

Batbox III D Bat Detector**•High quality heterodyne Bat Detector**

The Batbox III D is a high-quality; low-noise heterodyne detector with a broadband (>16kHz) electret microphone which will pick up ultrasound between 19–125kHz. Easy to read digital display, single-handed operation, high sensitivity and robust build make the III D an essential field tool for the professional or amateur bat worker. Speaker, headphone socket, line-out (recording) socket. Soft padded carry case and 9V battery included.

(Prices exclude VAT)



175131 Batbox III D Bat Detector \$201 €177 £130.21

DIY Bat Detector Kit**•Everything you need to build your own detector**

Build your own bat detector with this kit based on the Magenta MKII detector. Speaker, headphone socket. (No line-out socket). NB. this is not an easy kit! Soldering and electronics skills required.

(Prices exclude VAT)

192519 Magenta Kit \$51 €45 £33.29

**SSF Bat2****•Minimises the chance of missing bats**

The SSF Bat2 is a new generation of super-heterodyne detector that is ideal for experts and beginners alike. In addition to its heterodyne function, the SSF Bat2 also uses frequency division to monitor all frequencies. It will report the peak frequency, and at a push of the button you can jump to that peak frequency. The SSF Bat2 gives users the option to input pre-set frequencies, allowing you to jump between frequencies and greatly minimise the chance of missing bats. The LCD display also displays a small graph showing the frequency range of the received call.

Power supply: 4 x AA alkaline battery or rechargeable NiMH battery. Battery life, up to 40 hours.

(Prices exclude VAT)

187950 SSF Bat2 \$225 €198 £145.83
199536 SSF Bat2 Protective Case \$31 €27 £19.99**Pettersson D200 Bat Detector****•Compact detector with accurate LCD display**

The D-200 is an advanced heterodyne detector with an exceptionally sensitive electret microphone. The backlit digital LCD display provides a very accurate value of the tuned frequency. The controls are on the side of the case, making it easy to adjust in the field. Speaker, headphone socket, line-out (recording) socket. Frequency range: 10kHz to 120kHz. Includes padded carry case and strap. 9V battery (not included).

(Prices exclude VAT)

175029 D200 Bat Detector \$320 €281 £207.50

**Batscanner****•Perfect for bat groups and training sessions**

With Elekon's Batscanner, detecting bat calls is easier than ever - you just turn on the device and listen. The Batscanner sits comfortably in your hand, is lightweight, and small enough to take with you wherever you go. The ultrasonic sounds are automatically transformed into the audible range, without the need for any adjustments - the mixing frequency is determined and readjusted automatically by the call frequency of the bats. The peak frequency is displayed immediately after even a brief fly by, so species are not missed simply because the wrong frequency was selected.

The Batscanner features excellent audio performance. The built-in loudspeaker has been optimized to avoid feedback loops and is connected to a headset so that a single user can concentrate better on the bat calls. There is also an intelligent automatic noise reduction function that removes noise created by crickets and clothing but preserves the low frequency calls of bats like the noctule. The microphone can easily be replaced if damaged.

(Prices exclude VAT)

194636 Batscanner \$256 €225 £165.83

206690 Replacement Batscanner microphone \$45 €40 £29.16

**Pettersson D100 Bat Detector****•High sensitivity microphone system**

This high quality heterodyne detector employs both electret and ceramic microphones to give maximum sensitivity across its tuneable range. With a backlit frequency control for easy reading at night, it is ideal for the first-time user, yet sensitive enough for professional users. High quality speaker, headphone socket, line-out (recording) socket. Frequency range: 10kHz to 120kHz. Includes padded carry case and strap. 9V battery (not included).

(Prices exclude VAT)

175027 D100 Bat Detector \$225 €198 £145.83

**LAMP & TORCHES ► PAGE 186****Elekon Batscanner Stereo****•Stereo output to precisely locate bats**

The Batscanner Stereo provides the user with a truly immersive bat detecting experience. It has two FG Knowles microphones; one on each side of its robust case. Each microphone is wired to one of the headphones giving the user a bat like sense of the movement of the bats around them - a bat on the left hand side of the unit will be louder in the users' left ear and vice versa, likewise the signal from distant bats is quieter but gradually gets louder as they get closer.

Just like the original Batscanner no tuning is required; all ultrasonic sounds are automatically transformed into the audible range and the mixing frequency of this heterodyne detector is determined and readjusted automatically by the call frequency of the bats. The peak frequency and direction of a bat are displayed on the large digital screen after only a brief flyby, leaving you free to concentrate on the bat rather than tuning your detector.

(Prices exclude VAT)

218426 Elekon Batscanner Stereo \$296 €260 £191.67





FREQUENCY DIVISION DETECTORS

Frequency division detectors divide the incoming peak frequency (usually by 10) to give an audible output. For example, 50kHz (inaudible) is output at 5kHz (audible). This method results in a loss of tonality with all calls sounding rather tinny but is broadband so all bats will be heard. Key advantages are that the sounds can be recorded and analysed, and that the method samples all frequencies simultaneously so no bats will be missed.

FREQUENCY DIVISION DETECTORS COMPARISON

MODEL	MANUFACTURER	LCD SCREEN	MICROPHONE TYPE	FREQUENCY RANGE	AUDIO OUTPUT	BATTERIES	PRICE
Baton	Batbox	No	Electret	20–120kHz	Yes	1 X PP3 9V	£65
Duet	Batbox	Yes	Electret	17–125kHz	Yes	1 X PP3 9V	£212.50
D230	Pettersson	Yes	Electret	10–120kHz	Yes	1 X PP3 9V	£316.67

BatScan

•Affordable sound analysis software

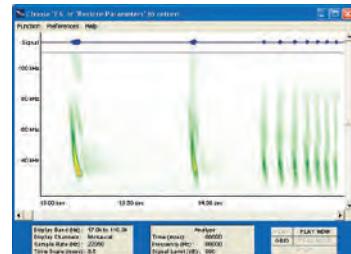
Sound analysis software for the Batbox Duet which lets you record and play back sound samples, and analyse and display audio spectrograms (similar to sonograms).

BatScan processes digital audio data such as .WAV sound files and the CD includes 12 reference calls. The default settings have been optimised for use with the Duet bat detector but this software can also be used with any other frequency division or time expansion detector.

(Prices exclude VAT)

176795 Batbox Batscan Software v9.8

\$26 €23 £17.00



Batbox Duet Bat Detector

•Heterodyne and frequency division

This is a dual function bat detector, with both heterodyne and frequency division.

Designed for single-handed operation, the Duet is very easy to use with its large, accurate backlit LCD frequency display. The heterodyne signal is heard through either the speaker or headphones. When recording, the frequency division signal is recorded on to the left channel and the heterodyne on the right channel. Includes padded carry case and 9V battery.

(Prices exclude VAT)

175132 Batbox Duet Bat Detector \$328 €288 £212.50



Pettersson D230 Bat Detector

•Heterodyne and frequency division detector

The D-230 has an accurate, backlit digital display, which shows the tuned frequency in the heterodyne mode. The frequency and volume controls are on the side of the case, making it easy to adjust. Using stereo headphones, the heterodyne signal is heard on the left channel and the frequency division signal on the right channel. Two 3.5mm jacks for headphones and recorder. Includes padded carry case and strap, 9V battery (not included).

(Prices exclude VAT)

175030 D230 Bat Detector \$489 €429 £316.67



The Batbox Duet and the Pettersson D230 combine heterodyne and frequency division so that the user can take advantage of both technologies while the Batbox Baton can be connected to a computer so that live sonograms can be viewed.



Batbox Baton Bat Detector

•Free analysis software included

The Baton is a hand held frequency division detector that will pick up bat calls in the range 20–120 kHz. It's lightweight and small with one-button operation and membrane switch. The Baton has an electret broadband ultrasound microphone and uses a standard 9V alkaline battery which will provide up to 30 hours operation. Record to an external recorder via the line out socket and then display and analyse calls using the version of BatScan software provided free with the Batbox Baton.

(Prices exclude VAT)

177263 Batbox Baton Bat Detector

\$100 €88 £65.00

Roland R-05 Stereo Recorder

•Compact and easy to use hand-held recorder

The R-05 is ideal for connecting to the line out port of your bat detector and will enable you to record bat calls for later analysis. High quality built-in stereo microphones also mean that the R-05 can be used for general wildlife sound recording. It records directly to an SD card and has extended battery life (over 16 hours continuous recording). Additional features include an automatic recording function which is sound triggered, a two second pre-record function and a variety of onboard editing functions. Windscreen and tripod mount included. To connect to a bat detector you will also need the 3.5mm to 3.5mm Stereo Jack to Jack Cable Lead.

(Prices exclude VAT)

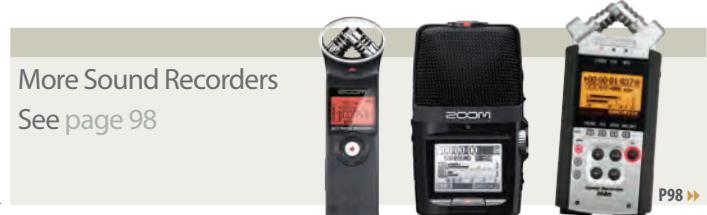
186214 Roland R-05 \$238 €209 £154.17

176857 Jack to Jack Cable Lead \$3 €3 £2.08



More Sound Recorders

See page 98





TIME EXPANSION DETECTORS

A time expansion detector digitally records ultrasonic calls and then plays them back at a slower rate and frequency to give an audible output. Time expansion detectors can only record for a fraction of the time so bats can be missed (the rest of the time is spent processing the signal). However, the quality of the recordings is high and all frequencies are recorded simultaneously so quieter species and the details of social calls and harmonics are not lost.

TIME EXPANSION DETECTORS COMPARISON

MODEL	MANUFACTURER	MICROPHONE	FREQUENCY RANGE	SAMPLE RATE	PRETRIGGER	IN-BUILT RECORDER	PRICE
D240X	Pettersson	Advanced Electret	10–120kHz	307kHz	Yes	No	£791.67
D1000X	Pettersson	Capacitance	5–307kHz (TE only)	32–768kHz	Yes	CF card	£2832.50
Griffin	Batbox	Electret	16–190kHz	441 and 705 kHz	Yes	CF card	£1270.83
Baton XD	Batbox	Electret	18–120kHz	441kHz	Yes	No	£239



Batbox Baton XD Bat Detector

•Frequency division and time expansion

The Batbox Baton XD uses both frequency division and time expansion to reduce the frequency of bat calls. By using these methods in combination, the XD is able to retain important information on four essential elements of bat calls: bandwidth, repetition rate, call shape and relative intensity. The output can be sent to any recording device, including iPhone and Android phones, for instant or later analysis and calls are played back immediately on the built-in speaker. All of the Baton XD's features can be accessed through a single tactile button. It uses a standard 9V alkaline battery providing over 20 hours use. This can be extended by using a lithium battery.

(Prices exclude VAT) \$ € £

222086 Batbox Baton XD \$369 €324 £239.00

Batbox Griffin Bat Detector

•Heterodyne, frequency division and time expansion

The Griffin is a high quality heterodyne, frequency division, and time expansion bat detector / recorder. Bat calls are recorded as time expanded (x16 or x10 depending on sample rate) 16 bit, 44.1kHz .WAV files to a removable CF card (up to 32GB). The recorded files include date, time, temperature, and light level readings. Selectable sample rate of either 705kHz or 441kHz.

The Griffin can be programmed for scheduled recording and can be deployed for longer periods using the remote recording kit (available separately) which comprises a weatherproof case and rechargeable lithium ion battery.

In monitoring mode an adjustable (up to 2 sec) pre-trigger recording mode means that even the briefest of passes will not be missed. Powered using four standard AA batteries (not included).

(Prices exclude VAT) \$ € £

180327 Batbox Griffin Bat Detector \$1,961 €1,723 £1,270.83

187949 Protective Rubber Jacket \$35 €30 £22.49



The Griffin & D1000X both include CF Card readers to record bat calls. The Baton XD & the D240X require an external sound recorder such as the Roland R-05 (Page 18).

Pettersson D240X Bat Detector

•High quality time expansion detector

Very popular heterodyne and time expansion detector with an advanced electret microphone and a large backlit, digital display. A digital recorder can be connected to the D240X to record the time expanded calls for analysis on a PC. If the recorder has 'voice activated' recording mode, a fully automatic bat recording system is obtained, which can be left in the field for unattended recording of bat calls. Includes padded carry case and strap. 9V battery (not included). A complete recording bundle is also available which contains a D240X, a H2N recorder (with AA batteries), 32GB SD card, 9V battery and a 2.5mm jack to jack cable

(Prices exclude VAT) \$ € £

175031 Pettersson D240X Bat Detector \$1,222 €1,074 £791.67

206427 D240X Complete Recording Bundle \$1,350 €1,187 £875.00

BESTSELLER



Pettersson D1000X Bat Detector

•Records heterodyne, frequency division or time expansion calls

The D1000X has heterodyne, frequency division and time expansion systems and a built-in 16-bit recording system. The

D1000X has a high-quality capacitance microphone that provides exceptionally low noise, wide dynamic range and low distortion. You can record heterodyne, frequency division or time expanded calls to the inbuilt

CF card recorder and record comments. Recording can be made manually or by automatic triggering (this can be frequency selective). The recordings are saved as .WAV files and are date and time stamped. You can also connect a GPS unit to the detector to record your position in the files. Includes padded carry case and strap.



SPECIAL ORDER
SEE PAGE 5



Microphone Extension Cable

(Prices exclude VAT) \$ € £

175032 D1000X Bat Detector \$4,371 €3,841 £2,832.50

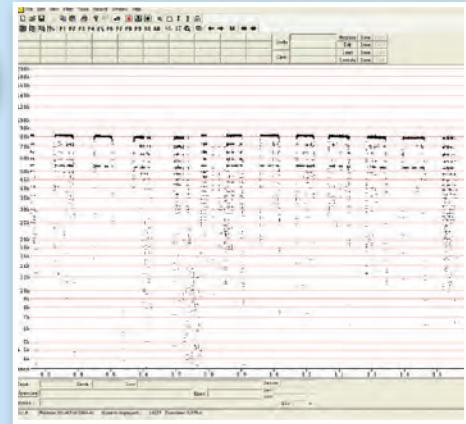
187078 Microphone Extension Cable \$122 €107 £79.17



ZERO-CROSSING DETECTORS

Zero-crossing is a type of frequency division system. It works by counting every time a sound wave crosses the zero point (an imaginary line drawn through the centre of the sound wave). After a set number of crossings (usually 8 or 10; referred to as the division ratio), the time is measured and recorded, providing a frequency/time output.

Zero-crossing detectors have the advantage of producing file sizes which are considerably smaller than those produced by full spectrum recorders. They also require much less energy, meaning that recorders can be left unattended in the field for longer. However, as they only capture the loudest frequency at any one time, harmonics are not recorded and the output also does not retain any amplitude information.



Zero crossing recording viewed in AnaLook

ZERO-CROSSING DETECTORS FREQUENCY DIVISION DETECTORS

MODEL	MANUFACTURER	MICROPHONE TYPE	FREQUENCY RANGE	RECORDING TIME *	BUILT-IN GPS	BATTERIES	PRICE
Song Meter SMZC	Wildlife Acoustics	FG Knowles	10–150kHz	14 nights	Yes	4 x C	£495
Anabat Express	Titley Scientific	Electret	10–150kHz	7 nights	No	4 x AA	£550
Anabat SD2	Titley Scientific	Condenser	4–150kHz	9 nights	No	4 x AA	£1295

* 12 hour nights using good quality alkaline batteries.



SMZC with security housing & Python Locks

Wildlife Acoustics Song Meter SMZC

- Weatherproof zero-crossing recorder
- Integrated omnidirectional FG microphone
- Lightweight and robust

The SMZC is a single channel zero-crossing recorder which is designed to be deployed for extended periods. It is fully weatherproof and can be easily attached to a tree or post using the strong, integrated mounting panel.

The SMZC records bat calls in zero-crossing format and files are saved onto one SDHC or SDXC card. It is powered by four C-cell alkaline batteries which will provide power for up to 40 (alkaline) or 25 (NiMH) nights. The integrated FG microphone is omnidirectional, weatherproof and low noise. The recorder can also be used with an SMM-U1 microphone with optional extension cables. An internal headphone connection allows for monitoring in real time.

The unit is easy to set up and comes with out of the box recording programs including night-time and continuous recording schedules (latitude and longitude must be set manually or using the optional GPS receiver to use the night-time program). Customised schedules can also be programmed either directly on the device or on a PC. Full settings and diagnostics can be saved to the SD card if required which assists with troubleshooting and analysis of results.

	\$	€	£
217027 Song Meter SMZC	\$764	€671	£495.00
194531 GPS Receiver	\$206	€181	£133.33
217051 Security Housing	\$85	€75	£55.00
221904 SMM-U1 Microphone	\$354	€311	£229.17
212192 10m Extension Cable	\$135	€119	£87.50
212193 50m Extension Cable	\$256	€225	£165.83
217052 C-Cell Alkaline Batteries (x2)	\$4	€3	£2.49

SMZC GPS Receiver

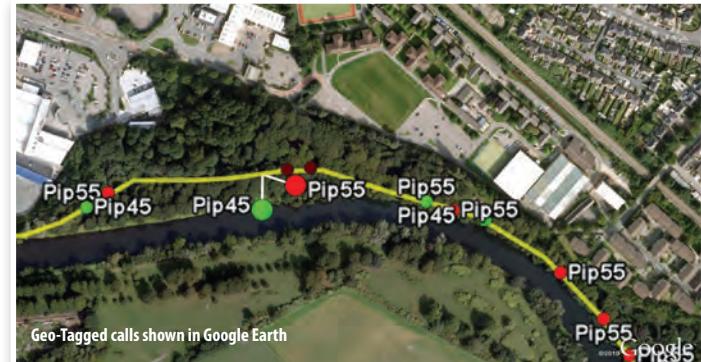
This GPS receiver allows you to log the location of your recordings or the path of your transect if using your SMZC for a mobile survey. It will also calculate accurate sunrise and sunset times and will let you configure time of day recording schedules. If you are deploying several devices the GPS can be used to synchronise time and date settings between units.

Please note that this GPS is also compatible with the EM3+ so if you already own an EM3+ GPS receiver there is no need to purchase another one.

(Prices exclude VAT)

194531 SMZC GPS Receiver

\$ 206 € 181 £ 133.33



BatNav - Anabat GPS Receiver

The BatNav geo-tags your Anabat SD2 bat calls with the GPS coordinates of the bat. Use it for any type of bat transect survey, whether walking, riding, driving, or travelling by boat. The BatNav comes with the BatNav KML generator to quickly map your bat calls in Google Earth. The bat calls are separated by species according to your AnaLook labels, enabling you to choose which species are displayed. Your transect route is also plotted so you can see, perhaps more importantly, where there weren't any bats. Repeated surveys can be overlaid, or multiple surveyors' results can be plotted to visualise a large site.

(Prices exclude VAT)

195115 BatNav - Anabat GPS Receiver

\$ 231 € 203 £ 150.00



► **Titley Scientific**

Popular professional bat detectors from Australia

**Anabat Express Bat Detector**

- **Designed for passive monitoring**
- **Programmable recording schedules**
- **Integrated GPS receiver**

The Anabat Express is an exciting high quality, weatherproof bat detector. It is designed to be rapidly deployed for the passive recording of bat calls for species identification or activity monitoring. Based on the highly optimised Anabat frequency division technology, it records calls in zero crossing format onto an SD card, ready for analysis with the free AnaLook software. Customised recording schedules can be configured and programmed onto an SD card using a PC and then quickly uploaded to the Anabat Express. It has an integrated GPS receiver that automatically sets the clock, calculates sunset and sunrise times and records the location of the device. The unit also has a 'one-touch' configuration capability, which allows you to programme it to record automatically from sunset to sunrise every night based on GPS coordinates just from one touch of the 'Mode' button, without having to use a PC for configuration. It is camouflaged and compact, with a weatherproof box and omni-directional weatherproof microphone, and it can be used with Anabat Express microphone extension cables so that you can position the microphone away from the unit. Four high quality AA batteries will power the unit for at least 7 nights of 12 hour recording.

Dimensions: (H) 180 x (W) 120 x (D) 42mm. Weight: 400g.

(Prices exclude VAT)

211761 Anabat Express



Anabat Express Microphone



Anabat Express Microphone



Anabat Express with optional microphone extension cable

**Anabat SD2**

The extremely popular Anabat SD2 Bat Detector is the original bat detector of choice for consultants. Using a highly optimised version of frequency division and zero crossing analysis, the Anabat SD2 generates clean output signals with the lowest possible data rate. The Anabat SD2 uses a compact flash (CF) memory card to store bat call data: a 512MB card stores about 2 months' worth of data.

The Anabat SD2 can be programmed to monitor during certain hours (for example, 8pm to 6am) for long-term passive deployments. The 'delayed start' feature allows you to schedule your study to begin at a certain date and time in the future. This allows you to conserve battery power when remotely recording bat activity. The Anabat SD2 can be powered from four internal AA batteries (suitable for short term use) or a 12V external battery for extended use in the field. The AnaLookW sound analysis software program is included with your Anabat SD2, to produce sonograms from your recordings.

Includes stainless steel Microphone, AnaLookW sound analysis software, 2GB compact flash (CF) card, USB cable, fused power lead, and instruction manual.

(Prices exclude VAT)

194428 Anabat SD2

\$	€	£
\$1,998	€1,756	£1,295.00



Anabat Express Strap

Anabat Express Security Box

Anabat Express Accessories

A range of accessories are available for use with the Anabat Express. A security box provides a secure and unobtrusive housing for the detector and is supplied with a Python Mini Cable Lock. The 5m microphone extension cable increases the flexibility of the detector by letting you position your microphone at height or away from the unit. The camouflage strap is elasticated and durable and provides a quick way to attach your recorder to a tree or post.

(Prices exclude VAT)

214357 Anabat Express Security Box

\$	€	£
\$105	€92	£68.00

214360 Anabat Express 5m Microphone Extension Cable

\$	€	£
\$54	€47	£35.00

215985 Anabat Express Strap

\$	€	£
\$19	€16	£12.08

193946 AA Batteries: Pack of 4

\$	€	£
\$4	€4	£2.91

Anabat SD2 Accessories

The Anabat Express stainless steel microphone has low energy drain and will transmit data effectively down long cables.



It has a stainless steel grill which provides enhanced resistance to corrosion. Microphone extension cables are available in 2m, 10m and 50m lengths and a 12V power lead lets you connect your recorder to a 12V battery for increased deployment times.

(Prices exclude VAT)

215074 Anabat Stainless Steel Microphone

\$	€	£
\$151	€133	£98.00

211734 Anabat Microphone Extension Cable: 2m

\$	€	£
\$34	€30	£22.00

211735 Anabat Microphone Extension Cable: 10m

\$	€	£
\$64	€56	£41.25

211736 Anabat Microphone Extension Cable: 50m

\$	€	£
\$168	€148	£109.16

194286 Anabat 12V Power Lead

\$	€	£
\$23	€20	£15.00

193946 AA Batteries: Pack of 4

\$	€	£
\$5	€5	£3.49

ACTIVE FULL SPECTRUM BAT DETECTORS

Like time expansion detectors full spectrum detectors record all sounds so that multiple species and/or harmonics can be recorded simultaneously. Unlike time expansion detectors full spectrum detectors are able to record continuously so the length of the call sequence recorded is not constrained by the detector technology. However, because full spectrum detectors record sound at its original frequency there is no audible output, although many real time detectors also include a heterodyne, frequency division, or time expansion option.



The full spectrum detectors featured here are optimised for transect surveys. These generally have a degree of weatherproofing but are not designed to be left outside, unattended for long periods of time. Some, such as the Anabat Walkabout and Echo Meter EM3+, have an in-built viewing screen which allows you to view and scroll through sonograms of bat calls in real time, whilst also allowing you to record calls onto an SD card. All detectors have either an integrated or plug-in GPS receiver which will log the path of your transect and geo-tag each of your calls. The Batlogger M can also be used with a purposely designed strongbox which provides excellent waterproofing and power cells, enabling long-term unattended surveillance of bat habitats.

ACTIVE FULL SPECTRUM DETECTORS COMPARISON

MODEL	MANUFACTURER	MICROPHONE	FREQUENCY RANGE	SAMPLE RATE	GPS	AUDIO OUTPUT *	PRICE
Anabat Walkabout	Titley Scientific	FG Knowles	10-250kHz	500kHz	Yes	Het / FD	£1095.00
Echo Meter EM3+	Wildlife Acoustics	Electret	1-192kHz	256kHz / 384kHz	Purchase separately	Het / TE	£774.16
Batlogger M	Elekon	FG Knowles	10-150kHz	312.5kHz	Yes	Het	£1350.00

* Het: Heterodyne, FD: Frequency Division, TE: Time Expansion

► **Titley Scientific** - Popular professional bat detectors from Australia**Anabat Walkabout**

• **Android recorder with WiFi and GPS**

• **Displays full spectrum or zero crossing calls in real time**

The Anabat Walkabout is a state of the art bat detector, designed to include everything you need for transects and other active bat survey work. The microphone is the widely used FG Knowles which has excellent sensitivity and is relatively resistant to moisture. This microphone can be used as either omni-directional or directional using the provided clip-on directional attachment. The 12.5cm LCD touchscreen displays either full spectrum or zero crossing calls in real time, enabling you to monitor and review your sonograms in the field. A built-in speaker or plug-in headphones also provide audio output - choose between pitch shifting, frequency division or heterodyne modes.

The Walkabout has a sampling rate of 500kHz and 16-bit resolution. All files are saved onto an internal SD card and can be replayed on the detector at a later time. The unit is powered by an internal rechargeable battery which can be charged using the included USB charger or other USB charging source (PC, car charger, power bank etc.).

As well as being a great size to carry around, the Walkabout is WiFi enabled and runs Android - this means that no additional phone or tablet is required for use. A built-in GPS and mapping system allow you to tag your calls and log your path as you go. The GPS features can be used

without needing access to cellular networks or WiFi in the field.

To provide a full range of environmental data for each transect, the Walkabout features a lux-meter, thermometer and humidity sensor. Jacks for headphones and for connection of an external microphone are provided and a hand strap and lanyard are useful additions to this great recorder. There are also buttons and a scroll wheel on the side of the unit to allow for one-handed operation of commonly used functions on the unit without having to use the touchscreen.

(Prices exclude VAT)

221238 Anabat Walkabout

\$

\$1,690

€

€1,485

£

£1095.00



GPS Receiver/Antenna for EM3+ Bat Detector

Garmin GPS Receiver/Antenna that automatically geo-tags bat calls as they are recorded. Perfect for transect work as you can map where different individuals/species were recorded using Google Earth or other GIS software.

(Prices exclude VAT)

194531 GPS Receiver/Antenna \$206 €181 £133.33

\$ € £

► Wildlife Acoustics

Professional bat detectors made in the USA

Echo Meter EM3+

•Heterodyne, Time Expansion and Full Spectrum

•Built-in spectrogram displays current and recent bat passes

The EM3+ allows you to record bat passes in 16-bit full spectrum while simultaneously listening to bat calls in the method of your choice: heterodyne, time expansion or real time expansion. The calls can be monitored during a survey with headphones or using the built-in speaker and a built-in spectrogram that displays current and recent bat passes.

One of the most adaptable detectors on the market the EM3+ has a user selectable sample rate of 256kHz or 384kHz, 384kHz being the recommended option in areas where lesser horseshoe bats may be present. Comments can be recorded during a survey and bat calls can be tagged in real-time into one of four categories to facilitate post processing. Records .WAV, .WAC or WAV/ZC files to a 4GB SDHC card included (up to 32GB); these can be converted easily and quickly to any other format using the free Kaleidoscope conversion software.

(Prices exclude VAT)

206171 Echo Meter EM3+ \$1,156 €1,016 £749.17

\$ € £

► Elekon - Innovative detectors and software

Batlogger M

•Integrated GPS

•Now with Super Heterodyne monitoring

The Batlogger M is a sophisticated bat detector/recorder that comes with its own powerful but user friendly call analysis software package. Ultrasonic calls (range: 10–150kHz) are recorded in 16-bit full spectrum. The new Batlogger M has all of the features of the original Batlogger but now also includes the same super Heterodyne monitoring capabilities of the Elekon Batscanner (via headphones). The Batlogger M also records the GPS coordinates (via an integrated GPS receiver), and environmental temperature at the time of recording. Different recording settings (scheduled, permanent, or instant), and different trigger thresholds (for call identification) can be set up. The Batlogger comes in a sturdy foam-padded carrying case, and includes a 4GB Kingston SDHC-card (loaded into the device), and a charger (note that this charger has a type C Europlug (CEE 7/16) power plug). Recordings are saved on a SDHC card.

The free BatExplorer Software allows you to manage Batlogger M recordings easily and quickly. You can listen to the recordings, expanded in time and thus in the audible range. Filter and sort to find the relevant data. Import, export and backup features simplify the handling of a large number of recordings. Thanks to the Batlogger's integrated GPS you can also see where calls were recorded. Customisable spectrogram with zoom and measuring aids facilitate manual species identification whilst BatExplorer also includes computer-aided identification of species with the help of an integrated bat species library (European species).

Replacement microphones are available for the Batlogger M, including a weatherproof microphone which has enhanced weather protection and improved flatter frequency response. The 2m microphone cable can be used to provide greater flexibility in microphone positioning. A standard microphone and 100m cable is also available. This is supplied on a cable reel, making it very easy to transport and deploy.



BatExplorer Screen Shot



Batlogger M in Strongbox

Batlogger Strongbox

The Batlogger Strongbox allows for long-term surveillance and monitoring of bat habitats using the Elekon Batlogger. This shock, weather and waterproof case holds your Batlogger and can be placed inconspicuously in the field. It contains additional power cells, allowing for up to 153 hours recording time (corresponding to 19 eight hour nights). It comes with a 1.5m microphone cable and microphone protection.

Three variants are available, 1 cell for 45 hours, 2 cells for 90 hours, 3 cells for 135 hours (+ 18 hours from the internal battery).

(Prices exclude VAT)

	\$	€	£
194633 Batlogger Strongbox: 1 cell (45 hours)	\$862	€757	£558.33
194634 Batlogger Strongbox: 2 cell (90 hours)	\$1,079	€948	£699.17
194635 Batlogger Strongbox: 3 cell (135 hours)	\$1,286	€1,130	£833.33

(Prices exclude VAT)

	\$	€	£
193054 Batlogger M	\$2,083	€1,831	£1,350.00
206689 Standard Batlogger Microphone	\$103	€90	£66.66
206688 Weatherproof Batlogger Microphone	\$174	€153	£112.50
209332 2m Microphone Extension Cable	\$45	€40	£29.13
210787 Microphone with 100m Cable	\$1,125	€989	£729.17



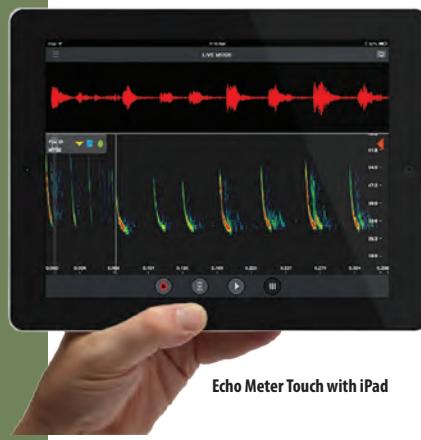
ULTRASOUND MICROPHONES

Connect an ultrasound microphone directly to your laptop, tablet or phone to view spectrograms in real time and record directly onto your device. The Wildlife Acoustics' Echo Meter Touch works with a range of iOS devices such as the iPad and iPhone and is capable of recording (additional App required) and automatically identifying bat calls (additional App required). The Pettersson M500 and the USB

Ultrasound Microphone will connect to your Windows tablet, laptop or PC and can also be used to view and record bat calls in real time.

ULTRASOUND MICROPHONE COMPARISON

MODEL	MANUFACTURER	FREQUENCY RANGE	SAMPLING RATE	OPERATING SYSTEM	CONNECTOR TYPE	DIMENSIONS	PRICE
Echo Meter Touch	Wildlife Acoustics	20 - 128kHz	256kHz	iOS	Lightning	48 x 53 x 12mm	£291.67
USB Ultrasound Microphone	Dodotronic	20 - 100/125kHz	200/250kHz	Windows/Mac	USB 2.0	130 x 20 x 20mm	£151.66-£218.33
M500S USB Ultrasound Microphone	Pettersson	20 - 250kHz	500kHz	Windows	USB 2.0	42 x 114 x 23mm	£300



Echo Meter Touch with iPad



Echo Meter Touch with iPhone

Wildlife Acoustics Echo Meter Touch

• Bat detection and analysis for your iOS device

The hardware for the Echo Meter Touch consists of an ultrasonic module which connects directly to your iPad, iPod Touch or iPhone. This module has an ultrasonic microphone and a microprocessor that streams the data to the iOS device. It enables you to listen to bats in real time, record onto your device and also to identify your calls to species level in seconds using onboard Kaleidoscope algorithms. If your device has GPS functionality (such as the iPhone), the Echo Meter Touch will also log the recording location and path of the recording session. If you do not have GPS functionality, you can use a Bluetooth GPS module for this.

The microphone on the ultrasonic module is an FG element which is extremely sensitive, and is weatherproof. The mic is omnidirectional and is mounted at a 45° angle in the enclosure - making it suitably orientated whether the device is held in landscape or portrait. The device has a sample rate of 256kHz and so will record echolocation calls of up to 128kHz.

Minimum size of compatible devices is 16GB and the maximum supported size is 128GB. Since an average night of recording will use approximately 0.5GB, even a small device will store calls from several nights. Calls can then be transferred to your computer for further analysis or storage using the WiFi Export in-app (available for free from the Apple App Store). This requires a WiFi connection and web browser. Files can also be converted from WAV to zero-crossing using the free Kaleidoscope converter software.

Onboard classification requires the Auto-ID in-app (also available for free from the Apple App Store) and is based on Kaleidoscope algorithms. This can all be conducted on your iOS device within seconds. Classifiers are currently available for most North American and UK species.

Echo Meter Touch can be used with the following iOS devices: iPad - 4th generation, iPad Air, iPad Mini with Retina Display, iPhone 5, 5S and 5C

(Prices exclude VAT)

210190 Echo Meter Touch

\$ 450

€ 396

£ 291.67

USB Ultrasound Microphone

• View full colour, spectrograms in real time

A fully digital USB ultrasound microphone with integrated digital to analogue converter available with either a 200kHz or

250kHz sampling rate. The USB 2.0 port allows for easy connection to your PC or MAC and no driver installation is required. Also compatible with some tablet computers (excluding Linux Android) the USB Ultrasound Microphone brings real time full spectrum ultrasound monitoring within the reach of everyone. Tablet and USB cable not included.

(Prices exclude VAT)

197685 USB Ultrasound microphone: 200kHz

\$ 234

€ 206

£ 151.66

197695 USB Ultrasound microphone: 250kHz

\$ 337

€ 296

£ 218.33



Pettersson M500 USB Ultrasound Microphone

• Bat detection and recording for Windows devices

The M500 microphone is designed to be plugged into the USB port of your Windows tablet, laptop or PC to provide the highest quality full spectrum bat recordings. Housed in a durable aluminium body the M500 ultrasound microphone incorporates the same high quality electret microphone technology as the Pettersson D500X. It is supplied with a removable directional horn so that recordings can be directional or omnidirectional.

The free software included with the M500 provides a real time spectrogram viewer and will also generate triggered recordings. Triggering modes include automatic, level triggered or frequency triggered and there is also a one second pre-trigger option. High 16-bit resolution and high sampling rate of 500kHz. Dimensions: 42 x 114 x 23mm (including microphone horn).

(Prices exclude VAT)

211081 M500 Ultrasound Microphone

\$ 463

€ 407

£ 300.00

CALL ANALYSIS SOFTWARE

Most bat analysis software packages are produced by bat detector manufacturers and are optimised for use with their own products; however they can normally be used to analyse data from other similar detectors. Pettersson's Batsound is the most widely used professional package and works well with data from most full spectrum and time expansion detectors. Several packages (e.g.

Wildlife Acoustics' Kaleidoscope (below) and ecoObs BatIdent (page 29) include auto-id functions which offer huge time savings by rapidly identifying species with distinctive calls allowing their users to focus in on harder to identify species.

Other packages include Batscan produced by Batbox (page 18) and BatExplorer (Windows users) and BatScope (Mac users) from Elekon (page 23).

Pettersson BatSound Software

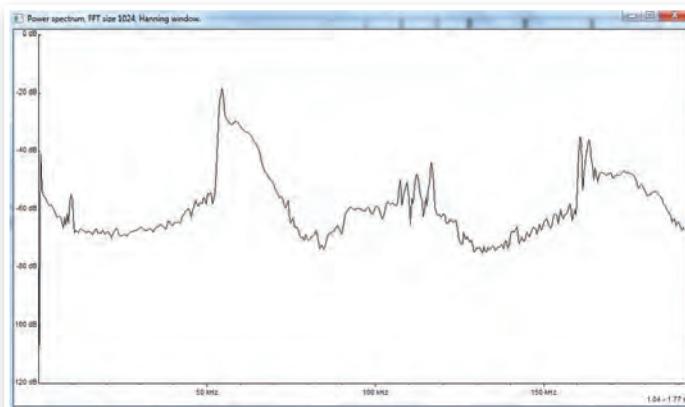
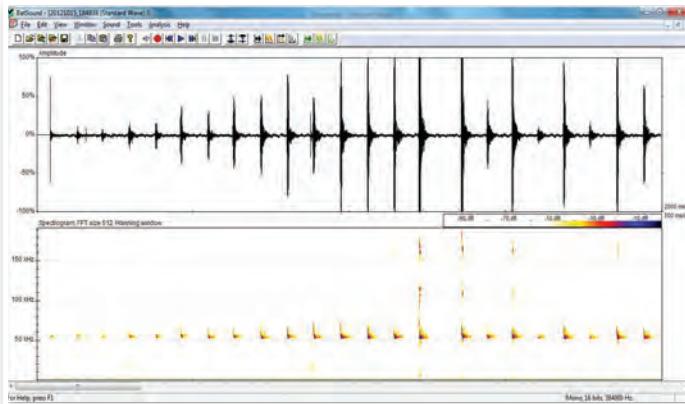
• Advanced sound analysis software

BatSound sound analysis software allows you to undertake spectrogram analysis of time expanded and frequency division recordings, and measure variables such as signal power, pulse length and repetition rate. These tools assist the accurate identification of bat species. The program itself is easy to use and comes with a comprehensive manual describing its operation and features. New features in BatSound version 4.x:

- Support for Windows XP, Vista, Windows 7 and Windows 8.
- Support for larger files
- Play Speed function to play files with high sample rates at reduced speed (i.e. as a time expanded file)
- Display of File Properties, including any GPS data that was stored in the file
- New file formats for improved compatibility with other sound editor programs
- Open Next function opens the next file relative to the current active file (in alphabetical order)

(Prices exclude VAT)

	\$	€	£
177310 Pettersson's BatSound v4.x - Single Use Licence	\$328	€288	£212.50
185638 Pettersson's BatSound v4.x - 2 User Licence	\$418	€367	£270.79
185639 Pettersson's BatSound v4.x - 3 User Licence	\$487	€428	£315.83
185640 Pettersson's BatSound v4.x - 5 User Licence	\$585	€514	£379.17
182627 Pettersson BatSound v4 Upgrade - Single Use Licence	\$141	€124	£91.67
193807 Pettersson BatSound v4 Upgrade - 3 User Licence	\$193	€170	£125.00
193808 Pettersson BatSound v4 Upgrade - 5 User Licence	\$341	€299	£220.83



Kaleidoscope Analysis Software

• UK, US and Costa Rican classifiers available for batch identification of bat calls

• Convert large numbers of files quickly and easily

Kaleidoscope Pro from Wildlife Acoustics allows rapid batch conversion and species classification of files recorded using a Song Meter, Echo Meter or other bat detector. It enables fast conversion from WAV, WAC or Zero Crossing to any of these three formats. Output files can be organised into daily or nightly sub-directories for ease of viewing and user-set filters will eliminate "noise" files. Available GPS information can also be extracted.

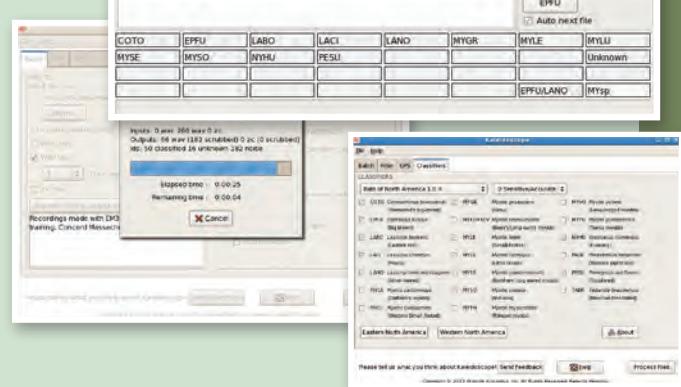
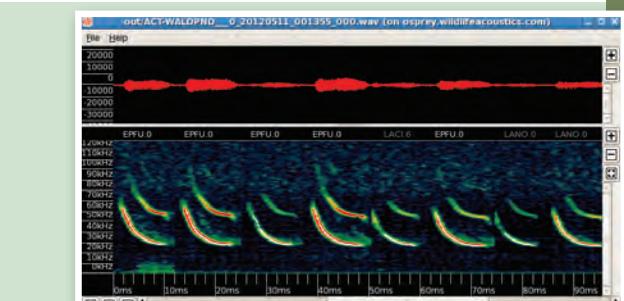
Kaleidoscope Pro also includes a package of classifiers for UK, US and Costa Rican bat species, allowing you to quickly identify species from your batch of calls. A version of Kaleidoscope with only UK classifiers is also available to purchase.

Kaleidoscope Pro and Kaleidoscope UK software comes with the Kaleidoscope Viewer, an advanced tool for the viewing and analysis of bat call spectrograms. It is easy to use and incredibly flexible, allowing you to customise your spectrogram in the way that suits you. Kaleidoscope Viewer can also be purchased separately.

Compatible with Windows and Mac computers - please specify which you will be using at the time of ordering.

(Prices exclude VAT)

	\$	€	£
206839 Kaleidoscope Pro	\$1,408	€1,237	£912.50
208874 Kaleidoscope UK	\$964	€848	£625.00
207154 Kaleidoscope Viewer	\$379	€333	£245.83



PASSIVE FULL SPECTRUM BAT DETECTORS

Professional bat workers and academics are often required to conduct long-term monitoring at survey sites, and a range of passive monitoring systems have been developed which are optimised for these types of survey. Using a passive recorder has obvious benefits in terms of surveyor time and allows a large amount of high quality data to be collected very easily.



Passive recorders have superior weatherproofing and can generally be programmed with advanced recording schedules based on local sunrise and sunset times. When used with an external power source, they can be left in the field for weeks or even months at a time.

PASSIVE FULL SPECTRUM DETECTOR COMPARISON

MODEL	MANUFACTURER	MICROPHONE TYPE	FREQUENCY RANGE	NO. OF CHANNELS	DEPLOYMENT TIME (DAYS)	BATTERIES	PRICE (EX VAT)
SM2BAT+	Wildlife Acoustics	Electret	15 - 192kHz	2	9-10	4 x D-cells	£832.50
SM3BAT	Wildlife Acoustics	Knowles FG	15 - 192kHz	2	14	4 x D-cells	£1,175.00
D500X	Pettersson	Advanced electret	50 - 190kHz	1	5 / 14	4 x AA	£1,208.33
Batcorder 3	ecoObs	Electret	16 - 150kHz	1	6-10	NiMH Battery Pack	£1,875.00



SM3BAT battery compartments



SM3BAT with SMM-U1 microphone

Song Meter SM3BAT Bat Detector

- Tough weatherproof aluminium case
- Extended battery life
- Three year warranty

The Song Meter SM3BAT Recorder improves on the popular Song Meter SM2BAT+ and provides a high quality platform for recording and monitoring bat populations.

The SM3BAT has a robust aluminium case which provides excellent weatherproofing and is able to withstand the toughest conditions. A built-in mounting panel makes it easy to deploy and the new easy-access battery tray and SD card hatch mean that changing batteries and cards in the field is quick and does not require any tools. The user interface consists of an LCD screen and button membrane which are both immediately accessible and a one-press status button provides a quick way to check battery levels, temperature, SD card capacity, microphone level and recording state. The SM3 will automatically detect the type of microphone that is attached to the unit and has an auto-setup function which allows for immediate recording straight out of the box.

The SM3BAT records in full spectrum on one or both of two recording channels. This means that it is possible to record in mono at 384kHz or in stereo at 256kHz. When recording in stereo it is possible to record two channels of zero-crossing at the same time. Meta-data, including gain,

microphone type and program details, are also embedded into the recordings, making it easy to access all the information you require when analysing your files. Bat calls and data are saved onto SD, SDHC or SDXC cards and the unit will accept a maximum of four cards simultaneously.

The unit is powered using four internal D-cell batteries. The battery life can be improved by the use of "nap mode" which puts the recorder into a low power state between triggers and increases the battery life by up to 50%. It is also possible to power the unit using an external battery which requires an additional power cable.

The SM3BAT comes with a high quality ultrasonic microphone on a 3m cable. This microphone has an FG element which provides a flatter frequency response and improved signal to noise ratio. It is also very resistant to water damage. The microphone cable can be extended using optional 10m or 50m extensions and additional microphones are also available to purchase separately.

A number of additional accessories are available for use with the SM3BAT including a GPS option and hydrophone with 20m cable.

Three year warranty included.

(Prices exclude VAT)	\$	€	£
222363 SM3BAT	\$1,845	€1,622	£1195.83
222274 SM3BAT: Starter Kit	\$1,863	€1,637	£1207.50
222364 SM3BAT: Complete Kit	\$1,902	€1,671	£1232.50

Song Meter SM2BAT+

- Records .WAC, .WAV and .ZCA files
- Enhanced waterproofing
- Omnidirectional microphone

The SM2BAT+ is a professional ultrasound recorder which allows the user to record at 192kHz (stereo) or 384kHz (mono). Consequently, European customers will no longer have to worry about whether or not they are likely to encounter lesser horseshoe bats and also have the option to record via a second microphone positioned up to 100 metres away (stereo 192kHz). The SM2BAT+ includes the option to record in Wildlife Acoustics WAC format or in ZCA format (mono only) meaning that users will either be able to quickly and easily analyse files in Analook using the ZCA format files, or analyse in detail the amplitude and harmonic details of the original bat signal by recording in WAC format. In addition the SM2BAT+ has enhanced waterproofing to help protect the internal circuit boards when programming the unit in the field. The SM2BAT+ can be easily programmed on your computer or directly on the SM2BAT+ to record on simple time-of-day schedules or to implement the most complex monitoring protocols, even scheduling recordings relative to local sunrise, sunset and twilight. Filenames are time stamped and include a programmable prefix to uniquely identify recordings made from each Song Meter. While making recordings, the SM2BAT+ also logs the internal temperature sensor and external sensor port every five minutes and saves this information in a text file.

Four SD/SDHC/SDXC card slots for high capacity storage or future capabilities like GPS, Bluetooth and WiFi. With four 32GB cards you can expect to have storage space for up to eight months recording. Four D-size batteries record up to 240 hours spread out through months at a time. Field tests indicate you can expect 9–10 days of recordings based on 12 hours per night using normal good quality Alkaline batteries. This can be extended by using an external battery pack. The SM2BAT+ is supplied as standard with one SMX-U1 ultrasonic microphone. Also available as a Starter Kit which includes, 1 x 32GB Class 4 SDHC card and 4 x D-cell batteries or as a Complete Kit which includes, 4 x 32 GB Class 4 SDHC cards and 4 x D-cell batteries.

(Prices exclude VAT)

	\$	€	£
222326 SM2BAT+	\$1,413	€1,242	£915.83
222327 SM2BAT+: Starter Kit	\$1,434	€1,260	£929.17
222329 SM2BAT+: Complete Kit	\$1,479	€1,299	£958.33

Ultrasound Calibrator

The Ultrasound Calibrator allows you to test that your ultrasonic microphones are performing correctly. The calibrator has a "Calibration" mode to test the microphone at close range and a "Chirp" mode to test the functioning of the entire system from a greater distance.

(Prices exclude VAT)

	\$	€	£
201745 Ultrasound Calibrator	\$293	€258	£190.00

**Song Meter SM3 GPS Option**

The SM3 GPS Option allows you to log location information making programming your SM3 even easier. Using a GPS also allows you to synchronise the clocks within multiple SM3 units to within one millisecond. This opens the possibility of using an array of SM3BATS to track the movement of bats within your survey site. Includes a Garmin GPS receiver and 5m cable

(Prices exclude VAT)

	\$	€	£
212183 SM3 GPS Option	\$384	€338	£249.00



SM2BAT+ with SMX-U1 microphone and extension cable

**SM3BAT Accessories**

221904 SM3 Ultrasonic Mic (SMM-U1) (3m cable)	\$354	€311	£229.17
212192 Microphone Extension Cable (10m)	\$135	€119	£87.50
212193 Microphone Extension Cable (50m)	\$256	€225	£165.83
212184 Hydrophone (20m cable)	\$963	€846	£624.17
212185 External Power Cable	\$103	€90	£66.67
217052 C-Cell Batteries: Pack of 2	\$4	€3	£2.49

**SM2BAT+ Accessories**

221905 SM2+ Ultrasonic Mic (SMX-U1)	\$289	€254	£187.50
200983 Directional Horn Attachment	\$201	€176	£130.00
188044 Microphone Extension Cable (1m)	\$58	€51	£37.49
195539 Microphone Extension Cable (3m)	\$71	€62	£45.83
188045 Microphone Extension Cable (10m)	\$127	€112	£82.42
188046 Microphone Extension Cable (50m)	\$216	€190	£140.00
200985 Hydrophone (20m cable)	\$810	€712	£525.00
188041 External Power Cable	\$179	€157	£115.83
188048 Replacement Windscreen	\$17	€15	£11.00
193909 D-cell Batteries: Pack of 2	\$5	€4	£2.92

BAT DETECTORS

► **ecoObs** - German design with automated call analysis

Batcorder 3

• Automated call analysis using ecoObs software

• Ideal for long-term passive monitoring

The ecoObs Batcorder 3 is optimised for passive monitoring of bat activity. It is weatherproof (IP65), easy to deploy and has a run time of up to ten nights using the included NiMH battery pack (longer deployments are possible using an external battery). With an omnidirectional microphone and excellent signal-to-noise ratio, the Batcorder produces high quality full-spectrum recordings of bat calls and will even distinguish bat calls from other sound sources (such as insects and rustling leaves) in real-time. Each microphone is calibrated with a fixed sensitivity which allows comparison of recordings made at different locations and with different detectors.

The Batcorder has a sampling rate of 500kHz with 16-bit resolution. Files are recorded in .raw format and saved onto an SDHC card. A 16GB memory card allows you to store around 15,000 typical bat recordings; this is sufficient for sampling of five to 20 consecutive nights at most locations. When recording on wind turbines, recordings of more than 30 days usually fit onto a 16GB card.

The Batcorder is supplied with a camouflage cordura case, external NiMH battery pack (with charger), internal Li-ion battery, FG Knowles microphone and hard transport case. It can also be purchased without accessories for use with the Box Extension or Wind Turbine Extension Kit.

Replacement battery packs and microphones are available as well as a power cable which allows you to connect your Batcorder to an external battery.

(Prices exclude VAT)	\$	€	£
187317 Batcorder 3	\$2,765	€2,430	£1,791.67
221522 Batcorder 3 (no accessories)	\$2,411	€2,119	£1,562.50

Batcorder Accessories

(Prices exclude VAT)	\$	€	£
208712 Batcorder 3 Microphone	\$212	€186	£137.50
188267 Replacement Battery Pack NiMH 6V/2.7Ah	\$148	€130	£95.83
212948 Power Cable - Batcorder to 12V battery	\$29	€25	£18.75

Batcorder Box Extension

The Batcorder Box Extension provides a reliable solution for long term monitoring projects such as extended monitoring of roosts. The Batcorder is housed within a robust plastic box. The microphone is installed in the box cover and additionally protected by a foam ring. The Batcorder Box Extension contains a microphone test capacity to detect deviations from calibrated sensitivity. If the microphone is damaged by rain or dirt, the control module will report this via SMS. The box can also be locked with a padlock providing security for the Batcorder inside.

At the end of each recording interval (night), the box also sends a detailed status update to a nominated mobile phone. This message contains the number of recordings made that night, overall number of recordings, memory capacity of the SDHC card, microphone sensitivity as well as other error messages such as low/empty battery warning. All you need is a standard SIM card, which you can install yourself. A prerequisite is reasonably good mobile coverage at the location (this can be checked prior to installation on a normal mobile phone).

A control module allows connection of 6V to 17V batteries. The set comes with a 6V 12Ah lead-gel rechargeable battery (normal runtime is about 20 days).

Optional Solar Panel

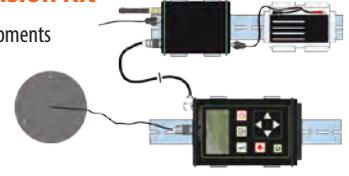
The solar panel recharges the Batcorder after each night of recording (therefore deployment time will only be limited by the capacity of the SDHC card). However, if there is a prolonged spell of cloudy weather, and the Batcorder is not recharged properly, the user will receive an SMS text message notifying them of a low battery.

(Prices exclude VAT)	\$	€	£
191364 Box Extension - Without Solar Panels	\$1,413	€1,242	£915.83
191365 Box Extension - With Solar Panels	\$1,877	€1,650	£1216.67



Batcorder Wind Turbine Extension Kit

Tried and tested at countless wind farm developments across Europe the Batcorder wind turbine extension kit enables the user to undertake accurate bat surveys on wind turbines using a Batcorder.



The extension kit comes with a special plastic disc in which a boundary microphone is embedded. This disc is specifically developed for the Batcorder and replaces the standard microphone. The disc is inserted directly into the turbine nacelle (gondola) through a hole with a diameter of 10cm.

Power to the Batcorder and microphone is controlled by a separate control module. While the Batcorder is turned off (daytime) the module is connected to the power line within the wind turbine nacelle (110–240 Volt), which charges the lead-acid gel battery. When the Batcorder turns on, the module disconnects from the main nacelle power line and the Batcorder and module now run on power from the lead-gel battery.

To ensure that the Batcorder continues to function over long deployments, the control module can send progress reports via text message. Just before sampling is stopped, the control



module sends a status message via SMS to any selected phone number. That way you always stay informed on recording count, memory status and other information. It can also report problems with the power supply and microphone. The microphone disc (that sits flush with the exterior of the nacelle)

has an inbuilt loudspeaker. This emits a sound that is used to check the microphone is working correctly. In order to receive updates, you need to install a SIM card and ensure that you have network coverage at the turbine site.

(Prices exclude VAT)	\$	€	£
188266 Wind Turbine - Extension	\$1,382	€1,215	£895.83
188275 Wind Turbine - Microphone Disc	\$283	€249	£183.33

Batcorder software

•bcAdmin

bcAdmin is the main application for managing and analysing Batcorder recordings. It stores information on recordings, sessions and locations in a database for further evaluation. It is designed to complement the Batcorder but works with other recordings as well. bcAdmin implements the analysis of bat call sequences and stores measurements in special files for identification with batIdent. Bat activity can easily be displayed in tables or graphs generated by bcAdmin.



bcAdmin 3.0
Management, Analysis, Reports

•batIdent

batIdent is the freely available software that complements bcAdmin for automated species identification of echolocation calls of European bats. Advanced statistical methods allow the automated identification of 27 species from 11 genera, with some species in the form of groups (e.g. *Plecotus*). The call library used in the analysis features more than 77,000 individual signals.



batIdent
Species identification

•bcAnalyze

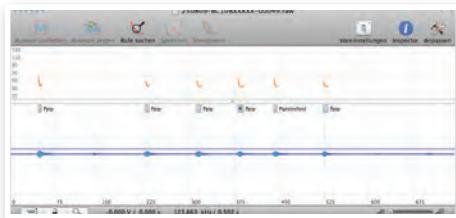
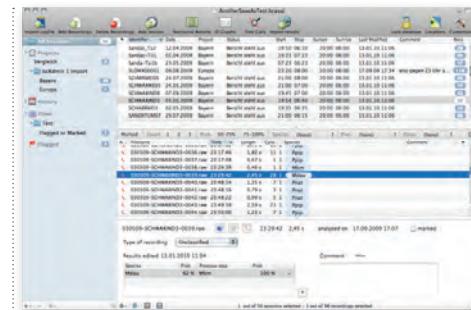
bcAnalyze supplements the Batcorder system and offers manual analysis of recordings. As in other such applications you can view the oscillogram, spectrum and sonogram of your sound files. Measurements from bcAdmin are plotted above the sound wave or get overlaid on the sonogram. This allows you to manually confirm batIdent results or analyse recordings from other systems. bcAnalyze features one of the fastest sonogram displays available. You can quickly browse calls by pressing the tab key to select the next call.



bcAnalyze 2.0
Sonogram, Spectrum, Playback

batIdent performs a single call analysis in a multi step process. Unknown or incorrectly measured signals are rejected. Calls that are not well defined are assigned to a lower group level. The results and assignment probabilities for the calls of a sequence are used to extract up to three species per recording. With test calls a positive classification rate of 85% was achieved. Random sequences recorded under suboptimal circumstances will not always reach such high separation, but batIdent has proven itself in daily practice for many users. Species information from calls is typically derived in less than a second.

	\$	€	£
188257 bc Admin 3.0	\$926	€814	£600.00
188262 bcAnalyze 2.0	\$368	€324	£238.75
188259 batIdent			Free download



bcAdmin Screen Shots

BATCORDER SOFTWARE

Batcorder software is only available for Macs, with no Windows version planned. We recommend buying a Mac mini, but any Mac will do providing it is running Mac OS X 10.7 or newer. Whilst this is an extra up-front expenditure, the time savings will recoup any initial outlays very quickly.

Please note the Batcorder software is not compatible with iPads.

► Pettersson - Professional quality detectors from Sweden

Pettersson D500X Bat Detector

•Passive monitoring detector

•Weatherproof housing

The D500X is an ultrasound recording unit intended for long-term, unattended recording of bat calls. This device detects full-spectrum ultrasound and records in real time. Sampling rates of 44.1kHz, 300kHz and 500kHz are available (optimised for 500kHz). The recorder is equipped with four slots for compact flash memory cards and a total of 128GB can be obtained when four 32GB cards are used.

The triggering system allows the device to start recording as a sound is detected. The recording length can be selected in steps from 0.3 up to 30 seconds. In order not to fill the card too fast at locations with high activity, a minimum time between two recordings can be applied. The recorder is normally operated in a low power mode with no pre-trigger (i.e. the recording starts as the sound exceeds the chosen threshold level), but both pre- and post-trigger functions are available in the standard (not low-power) mode.

The D500X is available in two versions: The standard version comes with an internal microphone and has an external microphone jack for an additional microphone to be connected (available to purchase separately). It is powered by 4 x AA batteries and can record for up to 5 nights. The MkII version comes with a D500X external microphone and does not have an internal microphone. It uses C-cell batteries and can record for up to 14 nights. The external microphone can be extended using DMX cables up to a distance of 100m without experiencing any discernible signal loss. Please note that deployment times are dependent on the batteries used.

	\$	€	£
178758 D500X: Standard with Internal Mic	\$1,864	€1,638	£1,208.33
221314 D500X: MkII with External Mic	\$1,864	€1,638	£1,208.33
193063 D500X 5.5–8V Battery Cable	\$37	€33	£24.17
222085 D500X MkII 5.5V–8V	\$37	€33	£24.17
188942 D500X External Mic and 1m Cable	\$495	€435	£320.83
222261 DMX Microphone Extension Cable: 1m	\$8	€7	£5.42
222262 DMX Microphone Extension Cable: 5m	\$12	€11	£7.92
222263 DMX Microphone Extension Cable: 10m	\$19	€17	£12.49



D500X MkII with optional DMX cable



D500X deployed in carry case.
Hook and carabiner not included

Yukon Tracker NVG Night Vision Goggles

•1x magnification, 30° field of view

For hands free night vision over a prolonged period of time, the Tracker NVG is perfect. The head mount is padded for comfort and is fully adjustable. With wide 30° field of view and built-in infrared illuminator, the Tracker NVG will enable viewing up to 200m away in ideal conditions. The illuminator utilises Yukon's exclusive PULSE system and the "Eclipse" lens cover system uses flip-up covers, eliminating lens cap hassles. The Tracker NVG comes with both the head mount and binocular scope which can be detached or flipped up. It is powered by a 3V CR123A battery and comes with a protective carry case. Dimensions: 175 x 123 x 72mm, Weight: 800g.

(Prices exclude VAT)

184098 Yukon Tracker NVG \$681 €599 £441.66



Peli 9430IR Infrared Area Lighting System

•Infrared floodlight

Used in combination with night vision equipment this lighting system allows you to observe and work at your chosen location without a large and potentially disruptive visible light source affecting the behaviour of wildlife.

The 9430IR has 24 infrared LEDs which, combined with the extendable neck, provide illumination up to 200m. A fully charged battery will provide lighting for 8–15 hours and an economy setting means that you can preserve the battery life when required. Supplied with a mains charger. Dimensions: 40 x 20 x 23cm, Extended height: 82cm.

(Prices exclude VAT)

199575 Peli 9430IR \$1,723 €1,514 £1,116.67



Yukon Stringer Night Vision Monocular

•Record video to SD card

The new Yukon Advanced Optics Stringer Night Vision Monocular is an affordable digital night vision device with the ability to record video onto an SD memory card (max 32GB) or directly onto a PC or laptop with 800 x 600 pixel resolution. The Stringer has a built-in infrared illuminator, featuring a Class 1 Laser Safety compliant laser diode, which will provide good visibility even in the darkest conditions. The 5 x 50 model offers high power 5x magnification and a large 50mm diameter objective lens to improve clarity in low light. The 3.5 x 42 has 3.5x magnification and a 42mm lens diameter. Supplied with carrying case, wrist strap, 2GB SD card, USB cable, cleaning cloth and user manual.

(Prices exclude VAT)

216921 Yukon Stringer: 3.5 x 42 \$328 €288 £212.50
212961 Yukon Stringer: 5 x 50 \$386 €339 £249.96



Light Sticks (x2)

•Glow for up to 12 hours

Light sticks are activated by gently bending and will last for up to 12 hours. Sold in a pack of two which contains one green and one orange stick. Each stick measures 2 x 2 x 11cm and weighs 24g.

(Prices exclude VAT)

217873 Light Sticks (x2) \$5 €4 £3.13



Pulsar Quantum S Series Thermal Imaging Scopes

•30Hz refresh rate, great for bats

Pulsar Quantum S Series Thermal Imaging Scopes are designed for use both at night-time and in the daylight in inclement weather conditions such as fog and rain. They can be used to see through obstacles such as tall grass and bushes and are an excellent tool for the nocturnal surveyor. All HD models have a refresh rate of 30Hz which makes them ideal for observing fast moving animals and for watching bat roosts. Available with 1.1x, 2.1x or 2.8x magnification. All models have 2x digital zoom.

Quantum thermal imaging scopes have an IR sensor (uncooled microbolometer) which, unlike image intensifier tube based night vision devices, does not require an external light source and is not affected by bright light exposure.

Powered by four AA batteries or using an external power source such as the EPS3 or EPS5 (available to purchase separately). An analog video output also allows you to connect an external recording device.

Please note that we are not able to ship these scopes outside of the UK.

(Prices exclude VAT)

	\$	€	£
211159 HD19S: 1.1x magnification	\$2,829	€2,486	£1,833.29
211161 HD38S: 2.1x magnification	\$3,663	€3,219	£2,374.17
217265 HD50S: 2.8x magnification	\$4,306	€3,784	£2,790.83
211162 EPS3 2.4Ah External Battery Pack	\$109	€96	£70.79
211163 EPS5 5Ah External Battery Pack	\$129	€113	£83.29

Intensity Glow Markers

•Glow for up to 12 hours

Intensity Glow Markers can be attached to anything you need to be able to locate in the dark. Each marker will glow for around 12 hours following a five minute charge in bright light. Supplied with a cable ring attachment. Each glow marker measures 45 x 15 x 7mm and weighs just 6g.

(Prices exclude VAT)

	\$	€	£
217875 Blue	\$6	€5	£3.75
217876 Clear	\$6	€5	£3.75
217877 Green	\$6	€5	£3.75
217878 Orange	\$6	€5	£3.75
217879 Pink	\$6	€5	£3.75





Petzl Tikka+ Headlamp

•Ideal for most types of outdoor activities

The Petzl Tikka+ has several lighting modes for different situations. Choose from proximity lighting, lighting for movement, boost mode, red lighting or strobe mode. The battery life management features allows you to easily anticipate battery replacement and will switch to reserve mode when almost drained. It will also switch to red lighting when batteries are nearly empty to preserve a minimal amount of lighting. Powered by 3 x AA batteries (included).

(Prices exclude VAT) \$ 58 € 51 £ 37.50



Petzl TacTikka+ Headlamp

•Perfect for bat workers

The TacTikka+ has a red light mode which allows for the preservation of night vision, making it ideal for bat workers. Choose from several lighting modes, each optimised for either close range vision or movement. Also includes a boost mode, which allows temporary access to a brightness of 140 lumens (60m), and a strobe mode for signalling in an emergency. Maximum brightness is 110 lumens with a range of 50m. Burn time management means that the torch automatically switches to reserve mode when batteries are low and to red light when almost drained. Powered by 3 x AA batteries (included).

(Prices exclude VAT) \$ 51 € 45 £ 33.33



Byte LED Headtorch

•Red & White LEDs

The Byte LED Headtorch is small and compact yet produces a powerful beam of light due to its Maxbright LED. An additional Ultrabright red LED ensures that you will save your night vision when it is needed. It has a number of other handy features including an easily accessible battery compartment, large push button switch and a battery lock function which prevents the torch being switched on accidentally. Powered by 3 x AAA batteries (included) which will last for up to 96 hours with the white LED and 146 hours with the red LED. Water resistant and weighs just 64g with batteries.

(Prices exclude VAT) \$ 24 € 21 £ 15.79



Digital Caliper

•IP54 Water resistant

Hardwearing stainless steel/polycarbonate digital calipers. The LCD display provides easy reading of measurements and units can be set to mm or inches. Standard calipers are 150mm. Water resistant calipers (IP54) are also available in 150mm and 300mm lengths.

(Prices exclude VAT) \$ 37 € 33 £ 24.16
180586 Digital Caliper: 150mm
180587 Water Resistant Digital Caliper: 150mm
199008 Water Resistant Digital Caliper: 300mm



DialMax Vernier Dial Caliper

•0.1mm scale

Lightweight 150mm analogue Vernier calipers suitable for taking measurements from small mammals, birds and reptiles. They are manufactured from non-metallic material with a 50% fibreglass content and have a 0.1mm scale. The impact-resistant dial can be recalibrated to zero.

(Prices exclude VAT) \$ 33 € 29 £ 21.66
202858 DialMax Vernier Dial Caliper

Animal Handling Gloves

Comfortable ultra-light gloves that provide excellent protection, with a rough coating that allows animals to be gripped gently but securely.

(Prices exclude VAT) \$ 6 € 5 £ 4.04
180464 Small
180465 Medium
180466 Large
180467 Extra Large



Pocket Outdoor First Aid Kit

The Pocket Outdoor First Aid Kit contains 17 items including antiseptic cream, fabric dressing and a woven bandage.

(Prices exclude VAT) \$ 11 € 10 £ 7.44
180914 First Aid Kit



Large Butterfly Net

The Large Butterfly Net has a 47cm (18") diameter frame, a deep net bag and a 60cm extension handle. The handle can be removed from the frame for transport or to use the net where extra length is not required. The black net bag is constructed from soft Terylene material which will not damage delicate wings. Although designed for catching butterflies, the large size and soft net bag makes this net ideal for catching bats.

(Prices exclude VAT) \$ 46 € 41 £ 29.99
180590 Large Butterfly Net



Stainless Steel Hand Held Counter

Quality four-digit metal body mechanical counter with push button actuator. Ergonomically designed, this counter features a finger ring and sturdy chrome-plated steel construction. Fits comfortably into the palm of your hand. Counts from 0 to 9999. Reset by turning knob on side of counter.

(Prices exclude VAT) \$ 10 € 9 £ 6.46
183511 Hand Held Counter



Pesola Light-Line Spring Scale

Swiss-made scales with a precision spring made of corrosion-free, fatigue-resistant alloy. The scales are impervious to humidity - ideal for carrying around in the field. Each scale is adjusted by hand and has a guaranteed accuracy of +/- 0.3%.

(Prices exclude VAT) \$ 35 € 31 £ 22.92
176688 20g
176690 50g



Rite in the Rain Notebooks

These spiral-bound notebooks are completely waterproof and will survive extreme heat and humidity. They have a yellow polydura cover and 100 white lined pages (50 sheets). Available in two sizes - Small: 7.5 x 11.5cm, Large: 10 x 15cm.

(Prices exclude VAT) \$ 4.16 € 4.16 £ 4.16
207712 Small
207713 Large





EasyLog USB Temperature and Humidity Data Logger

- Available with LCD screen

This standalone data logger measure temperature, humidity and dew point and allows the user to easily download the stored data via a USB port. Temperatures can be logged between -35° and +80°C (-31° and +176°F) and relative humidity between 0 and 100%RH. The logger will store over 16,000 temperature and 16,000 humidity readings. Protected from water and dust to IP67 standard when cap is fitted correctly. Supplied with software which allows you to view and export your data. Also available with an LCD screen which lets you view current, minimum and maximum temperature and humidity values.

(Prices exclude VAT)

	\$	€	£
198792 EL-USB-2	\$77	€68	£49.99
219461 EL-USB-2-LCD	\$95	€83	£61.25

EasyLog Professional USB Temperature Logger

- Robust, stainless steel case

This professional data logger measures temperatures over a range of -40° to +125°C (-40° to +257°F). It will store up to 32,510 readings and the included battery will power the unit for up to three years. The logger is housed in a stainless steel case which protects the logger from corrosion, impact and moisture to IP68 standard. Data is downloaded by plugging the device directly into a USB port. The included software allows data to be viewed, printed and exported.

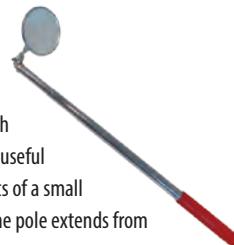
(Prices exclude VAT)

	\$	€	£
219464 EL-USB-1-PRO	\$154	€136	£99.96

Telescopic Inspection Mirror

- Extends to a length of 780mm

This telescopic inspection mirror can be used for checking natural cavities as well as nest boxes and other spaces with limited visual access. This inspection mirror is particularly useful when used with a torch, such as the Cluson ML7. It consists of a small mirror (55mm diameter) mounted on a telescopic pole. The pole extends from 250mm to a total length of 780mm.



(Prices exclude VAT)

	\$	€	£
210619 Telescopic Inspection Mirror	\$17	€15	£10.83

Mitex General UHF Two-Way Radio

- Up to 25km range

The Mitex General Two-Way Radio has a 5 watt power output (10x more than licence-free alternatives), making it powerful enough to deliver clear and reliable communication up to 25km in the countryside or up to 10km in urban areas. It is supplied pre-programmed which means that no setup is required and it can be used straight out of the box. The Mitex General has 16 channels; channels 13, 14 and 15 are common across all Mitex UHF handheld radios and channel 16 offers a handy scan function. Available to purchase individually or as a twin pack. Please note that operation of these units requires a Business Radio Light Licence which is available for £75 and covers unlimited handsets; an application form is included with this product.



(Prices exclude VAT)

	\$	€	£
215061 Mitex General: Single Pack	\$103	€90	£66.66
215062 Mitex General: Twin Pack	\$193	€169	£124.99



Petzl Spelios Caving Helmet with Hybrid Lighting

- Strong and durable helmet with dual LED and Halogen lighting

The Spelios Caving Helmet from Petzl is a durable and

comfortable helmet which comes with an attached DUO LED

14 headlamp. This headlamp possesses a hybrid light source

- a halogen bulb provides a powerful focused beam and 14 LEDs

provide a wide flood beam. The LED light source can also be switched

between three constant lighting modes (maximum, optimum and economic).

The maximum lighting distance of the lamp is 100m and the maximum burn time is 183 hours.

The torch is powered by four AA batteries (included) and a spare halogen bulb is also provided.

Two sizes of helmet are available to fit head circumferences of 48 - 56cm (size 1) or 53 - 61cm

(size 2). The helmet is fully adjustable both beneath the chin and around the back of the head

for a comfortable and secure fit.

(Prices exclude VAT)

	\$	€	£
216158 Petzl Spelios - Size 1	\$186	€164	£120.83
216159 Petzl Spelios - Size 2	\$186	€164	£120.83



Cluson ML7 Super Bright LED Torch

- Pocket sized and powerful hand torch



This is a small but powerful hand torch with a remarkable beam of up to 175m. It runs from a rechargeable Li-ion battery which will last for up to

3 hours on high beam or 6 hours on low. It is very light to carry and measures only 130mm in length, making it small enough to fit into your pocket. Recharge time is just four hours.

Supplied with lamp, battery, mains and vehicle chargers and wrist strap. A spare rechargeable battery is available to purchase separately.

(Prices exclude VAT)

	\$	€	£
194810 Cluson ML7	\$46	€41	£30.00
196256 Spare 3.7V 2.2Ah Battery	\$19	€16	£12.00

LAMP & TORCHES ► PAGE 186



P186 ►



P190 ►

Mitex PMR 446 Two-Way Radio

- No licence required

The Mitex PMR 446 two-way hand-held radio is a compact and lightweight walkie-talkie which is supplied pre-programmed and therefore requires minimal setup or training. They are ideal for all short range communication needs and will transmit up to 10km in optimum conditions. These radios can be used licence free in most European countries and come complete with lithium-ion battery pack, intelligent charger pod, wrist strap and user manual. The PMR 446 will communicate with Icom, Kenwood and Motorola PMR 446 hand-held radios. Sold singly.

(Prices exclude VAT)

	\$	€	£
215265 Two-Way Radio	\$96	€85	£62.46





Explorer Premium Digital Endoscope Camera

•Record onto microSD card

The Explorer Premium Digital Endoscope is lightweight and easily operated with one hand. It also provides the capacity to record still images or video on to a microSD/microSDHC card (not included). The screen can be detached from the endoscope whilst in operation and footage can still be viewed on the screen (effective range 10m). The camera head has a diameter of 9mm and the endoscope cable is 91cm long, giving easy access to a variety of boxes, burrows, nests and other crevices. Adjustable lighting levels help to minimise disturbance to animals. The camera and cable have an IP67 waterproof rating allowing you to investigate underwater. The camera is powered by 4 x AA batteries and the screen has a rechargeable Li-ion battery (charger included).

The Explorer comes with three camera attachments (mirror, hook and magnet), mains charger for the screen, AV video cable, USB cable and a heavy duty carry case. It is also available as a complete bundle which includes 4 x AA batteries and a 4GB microSD card. Replacement camera cables (with 9mm or 4.5mm camera head) and a one metre extension cable are also available to purchase separately.

(Prices exclude VAT)

	\$	€	£
204971 Explorer Premium Endoscope	\$206	€181	£133.29
206437 Explorer Endoscope - Complete Bundle	\$219	€192	£141.63
205072 Camera Cable - 9mm	\$64	€56	£41.66
205071 Camera Cable - 4.5mm	\$73	€64	£47.49
205067 1m Extension Cable	\$32	€28	£20.83
208158 4GB micro SDHC	\$8	€7	£4.99

Rigid SeeSnake Endoscope CA100

•Robust and perfectly suited for tree work

The Ridgid SeeSnake Endoscope CA-100 has a waterproof 17.5mm camera head and 90 cm cable. There is a high visibility 3.5" colour LCD as well as an AV port which allows the image to be seen on any monitor that has an AV input port. The user can also easily rotate the active image counter-clockwise to see in any situation. Fully adjustable LED lighting makes the camera useful even in the darkest places. Powered by 4 x AA batteries.

(Prices exclude VAT)

	\$	€	£
190630 Endoscope CA100	\$354	€311	£229.17



Surveyors' Ladders

These aluminium surveyors' ladders are constructed from lightweight sections which fit securely together to form a straight ladder. Each section is 0.9m in length meaning that, when separated, the ladder will fit easily in the boot space of most saloon cars.

Ladders have anti-slip round rungs, rubber feet at the top and bottom and will support a 150kg work load. Available in four lengths: 2.75m (3 sections, 6kg), 3.65m (4 sections, 8kg), 4.55m (5 sections, 10kg) and 5.46m (6 sections, 12kg). 5-year warranty included.

(Prices exclude VAT)

	\$	€	£
205547 Three section	\$174	€153	£112.50
205619 Four section	\$225	€198	£145.83
205620 Five section	\$264	€232	£170.83
205621 Six section	\$309	€271	£200.00



Ridgid SeeSnake Inspection Camera CA300

•Records video or still images

The Ridgid SeeSnake CA-300 Inspection Camera has a comfortable pistol-grip design, one-hand controls, and a large screen that makes it easier to detect and identify animals in hard to reach areas. Video and still images can be captured to the on-board memory or to an SD Card (max 32GB). The CA-300 also has an integrated speaker/microphone so you can take notes whilst working. The Ridgid SeeSnake CA-300 comes with a rugged anodized aluminium camera head with four super bright LEDs as standard.

(Prices exclude VAT)

	\$	€	£
196579 Inspection Camera CA300	\$720	€633	£466.66
184846 Extension Cable 90cm	\$63	€55	£40.83
184847 Extension Cable 180cm	\$109	€96	£70.82
190860 USB Video Capture Lead	\$35	€31	£22.92



ME LCD Articulating Endoscope

•5.5mm articulating camera head

The ME LCD Articulating Endoscope has a 5.5mm articulated camera head and a 1m flexible camera cable, making it suitable for observations inside the smallest spaces. Four super-strength LEDs provide illumination, and brightness of these is controlled using the dial on the side of the handset. The camera is protected by a layer of oil and scratch resistant glass which ensures a consistently high quality output. Footage from the camera is viewed on the 8.9cm (3.5") LCD screen



which is built into the handset. The image can be rotated in four directions on this screen. Resolution of the camera image sensor is 640 x 480p and resolution of the viewing screen is 320 x 240p.

Videos and images can be recorded onto an internal SD card (2GB card supplied, up to 32GB supported). It is also possible to take snap-shot images while both recording and replaying videos. A handy photo compare feature lets you view two images simultaneously on the screen. The endoscope is powered by a high capacity rechargeable battery. A two hour charge will provide enough power for four hours continuous recording.

(Prices exclude VAT)

	\$	€	£
219789 ME LCD Articulating Endoscope	\$2,520	€2,215	£1,633.29

Xtend & Climb Pro Telescopic Ladder

The Xtend and Climb Pro Telescopic Ladder has been designed for the professional user. It has an ergonomic design that allows you to extend the ladder, rung by rung, and lock it in place to create the ladder of the exact length that you require. The tubular section is manufactured from aerospace aluminium with heavy duty couplings and secure lock tabs that are designed to fit your thumbs for smooth and responsive adjustment. The compact 0.81m folded size means that the Xtend and Climb Pro can be easily carried in the boot of your car. Total extended length is 3.8m and ladders weigh 13kg.

(Prices exclude VAT)

	\$	€	£
212543 Telescopic Ladder	\$212	€186	£137.50
221009 Carrying Bag	\$32	€28	£20.42



BAT TRAPS & NETS



Two Bank Harp Trap



Harp Trap restringing kit

Austbat Harp Traps

•Portable trap for catching bats

Made from lightweight aluminium tubing and can be assembled by two people in less than five minutes. The sides of the frame telescope to enable adjustment of line tension and the bottom line carriers are rolled up and secured in the top line carrier unit for safe transportation. A lightweight carry bag and an information booklet on assembly, line repair, re-stringing and maintenance is supplied with each trap. Overall dimensions: 4m x 1.8m, weight: 12kg. Trapping area: 2.4m x 1.8m. All components supplied packed in a large PVC tube. Three and four bank harp traps which provide higher catch rates and better retention are available as a special order item (6–8 week delivery time).

		\$	€	£
193364	Two Bank	\$2,572	€2,260	£1,666.66
199548	Three Bank	BUILT TO ORDER	€2,769	£2,041.67
199549	Four Bank	BUILT TO ORDER	€3,955	£2,916.67
193367	Austbat Harp Trap Restrining Kit	\$122	€107	£79.17

Harp Trap Purchasing Restrictions : Harp traps will only be sold to people licensed to use them. If you are a licensed to catch bats, please supply a copy of your NE, CCW or SNH licence. If you are purchasing from outside the UK, please contact us for requirements.

BUILT TO ORDER
SEE PAGE 5



Two Bank Harp Trap



Two Bank Trap with Bats



BatLure

•Digital ultrasonic player and speaker

Can playback sounds with frequencies of up to 100kHz. It is capable of playing both real time and time expanded recordings of bat vocalisations.

The BatLure is very compact and robust and has a tripod attachment mount, making it easy to set-up in your desired location. It plays sounds from an SD card which is supplied complete with several pre-loaded recordings. Users can also add their own recordings onto the card. Powered by 8 x AA batteries or external 12V battery (not included).

The BatLure can be used as a lure to improve catch rates of bats for survey or research (licence required), to attract bats to new artificial roosts such as bat boxes or constructed hibernacula, with bat detectors at training events or prior to bat walks and for calibration of bat detectors.

		\$	€	£
207565	BatLure	\$1,736	€1,526	£1,125.00

Pettersson L60 Ultrasound Speaker

•Great for teaching

Play back calls recorded on real time or time expansion detectors for teaching, as an acoustic lure (a license may be required), or to calibrate your bat detectors. The pocket size L60 has a frequency range of 2–60kHz and weighs 100g.

		\$	€	£
193052	L60 Ultrasound Speaker	\$154	€136	£100.00



Pettersson L400 Ultrasound Speaker

•Powerful acoustic lure

The L400 includes an integrated 14W amplifier and has a maximum output level of >100dB @ 1m (at 28V supply voltage) and a frequency range of 10–110kHz. The L400 is powered using 8 x AA cells or a 12–28V external power supply. Please note that prolonged exposure to high intensity ultrasonic signals can damage your hearing.

		\$	€	£
197657	L400 Ultrasound speaker	\$1,413	€1,242	£915.83



Avinet TB Mist Nets

Designed especially for bats and featuring a much smaller 'bag', making it easier to untangle the bat. The mesh size is 19 x 19mm, 75 denier 2ply polyester, four shelves.



(Prices exclude VAT)

		\$	€	£
193634	TB02 H: 2.6m x L: 2.6m	\$72	€63	£46.66
193635	TB06 H: 2.6m x L: 6m	\$96	€85	£62.49
193636	TB09 H: 2.6m x L: 9m	\$120	€106	£77.92
193637	TB12 H: 2.6m x L: 12m	\$144	€127	£93.33
193638	TB18 H: 2.6m x L: 18m	\$183	€160	£118.33



Mist Net Mounting Set

The mist net mounting set helps ensure your nets are stable and secure and reduces the effects of net stretch over time. Available in two versions; Set A for mist nets 3–15m long, and Set B for mist nets 15–21m long. Each set comprises;

- Two pieces of 4m long rubber rope Set A: 6mm diameter, Set B: 8mm diameter
- Four tent pegs (length: 30cm)
- Cotton storage bag

(Prices exclude VAT)

		\$	€	£
187170	Set A (nets 3 to 15m long)	\$26	€23	£16.66
187171	Set B (nets 15 to 21m long)	\$30	€26	£19.16

Telescopic Mist Net Pole

A lightweight telescoping pole for easy transportation and operation with a strong spike to anchor the pole into the ground. The poles can easily be retracted when removing birds or bats from higher parts of the net.

(Prices exclude VAT)

187169	Single pole	\$32	€28	£20.82
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Ecotone Ultra Thin Series M Mist Net

The Ultra Thin Series M mist nets are available with a mesh size of either 14 x 14mm or 20 x 20mm. Both sizes are made from nylon (0.08mm monofilament) and have four shelves. The 14 x 14mm nets are 2.4m high while the 20 x 20mm nets are 3.2m high. Suitable for bats.



(Prices exclude VAT)

		\$	€	£
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14 x 14mm

187200	H: 2.4m x L: 3m	\$39	€34	£24.99
187201	H: 2.4m x L: 6m	\$54	€47	£34.99
187189	H: 2.4m x L: 9m	\$66	€58	£42.49
187157	H: 2.4m x L: 12m	\$77	€68	£49.99
187202	H: 2.4m x L: 15m	\$90	€79	£58.32
187203	H: 2.4m x L: 18m	\$107	€94	£69.17
187204	H: 2.4m x L: 21m	\$121	€106	£78.33

20 x 20mm

187205	H: 3.2m x L: 3m	\$37	€33	£24.16
187206	H: 3.2m x L: 6m	\$50	€44	£32.49
187207	H: 3.2m x L: 9m	\$57	€50	£36.66
187208	H: 3.2m x L: 12m	\$75	€66	£48.32
187209	H: 3.2m x L: 15m	\$87	€77	£56.67
187211	H: 3.2m x L: 18m	\$96	€85	£62.49
187212	H: 3.2m x L: 21m	\$112	€98	£72.50

Aluminium Mist Net Poles

These high quality aluminium mist net poles are available as individual top and bottom sections or as a set made up of three poles (Ecotone) or six poles (Avinet). The working length of assembled 3-section poles is 2.84m (Ecotone) or 2.7m (Avinet). Avinet poles are also available in two diameters (18mm or 26mm). Top section poles have a hole at the top to anchor guy ropes and Ecotone poles have a second hole for extra rope to raise and lower the net.

(Prices exclude VAT)

		\$	€	£
203063	Ecotone Mist Net Pole: Top Section	\$28	€25	£18.33
203064	Ecotone Mist Net Pole: Bottom Section	\$37	€33	£24.16
203062	Ecotone Mist Net Pole Set: (2 x top, 1 x bottom)	\$77	€68	£49.99
193659	Avinet Mist Net Pole: 18mm Top Section	\$59	€52	£38.54
193660	Avinet Mist Net Pole: 18mm Bottom Section	\$40	€35	£25.83
193868	Avinet Mist Net Pole Set: 18mm (4 x top, 2 x bottom)	\$238	€209	£154.17
193657	Avinet Mist Net Pole: 26mm Top Section	\$64	€57	£41.67
193658	Avinet Mist Net Pole: 26mm Bottom Section	\$32	€28	£20.83
193869	Avinet Mist Net Pole Set: 26mm (4 x top, 2 x bottom)	\$257	€226	£166.66

Purchasing Restrictions: Mist nets will only be sold to people licensed to use them. If you are licensed to catch bats, please supply a copy of your NE, CCW or SNH licence. If you are purchasing from outside the UK, please contact us for requirements.

High Flier Mist Net Support System (for Bats)

The High Flier Mist Net Support System allows you to operate one, two or three mist nets at any height from 450mm above the ground up to a maximum height of seven metres. This not only helps to improve catch rates at existing sites but can also make mist netting possible in locations that weren't previously viable. The High Flier is constructed from 1¼" aluminium poles which are both strong and lightweight. The system is easy to erect; with practice two people can assemble it in around 20 minutes. The strong guy ropes provided clip quickly onto the poles which means that no complicated knot tying is needed. If required the system can be left in place indefinitely.

It is compatible with most standard mist nets which are clipped onto the sliding net carriers. A cleverly designed shock cord link keeps tension correct and ensures that nets don't sag. It also helps with minor variations in net length. A pulley system lets you lower one net at a time to a height which is comfortable for extraction. (If operating the net alone it may be necessary to do this in several stages, lowering one end of the net at a time). Guy ropes are made from highly visible reflective green or yellow cord, helping to prevent trips and falls. These show up well in low light conditions and are very bright when a torch is shone on them.

The High Flier can be carried and stored in the strong carrying bag included. When packed away it measures 2.6m in length and weighs less than 12kg. Everything required to set up the system, including guy ropes and pegs, are included with the High Flier. All you need to provide is the mist net(s). Available in three sizes which are suitable for one, two or three mist nets.

(Prices exclude VAT)

		\$	€	£
219487	Single net	\$752	€661	£487.50
219488	Double net	\$817	€718	£529.17
219489	Triple net	\$881	€774	£570.83



BAT BOOKS

Social Calls of the Bats of Britain and Ireland

Neil Middleton *et al.* (2014)

Social Calls of the Bats of Britain and Ireland brings together the current state of knowledge of social calls relating to the bat species occurring within Britain and Ireland, with some additional examples from species represented elsewhere in Europe. It includes access to a downloadable library of calls to be used in conjunction with the book.

212405 PBK

\$46 €41 £29.99

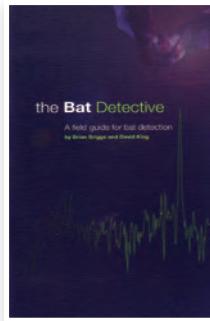
The Bat Detective

Brian Briggs and David King (1998)

Field guide designed to aid the use of 'mini' bat detectors. The book takes the reader through both the theoretical and practical aspects of the use of the bat detector, and covers all aspects of bat identification in the field, including 'jizz', flight style, foraging behaviour, roost finding, echolocation, and basic survey technique.

79534 PBK & CD

\$31 €27 £19.99

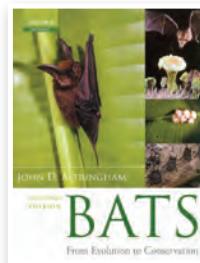


Bats: From Evolution to Conservation

John Altringham (2011)

John Altringham's book is a global study covering evolutionary biology, ecology, flight, migration, physiology and much more - and whilst presented as a text for students and researchers, its accessible and enthusiastic style means it also holds appeal for amateur naturalists and anyone interested in bat conservation.

191690 PBK



\$57 €50 £36.99

192367 HBK

\$116 €102 £74.99

Island Bats: Ecology, Evolution, and Conservation

Ed. by Theodore Fleming and Paul Racey (2010)

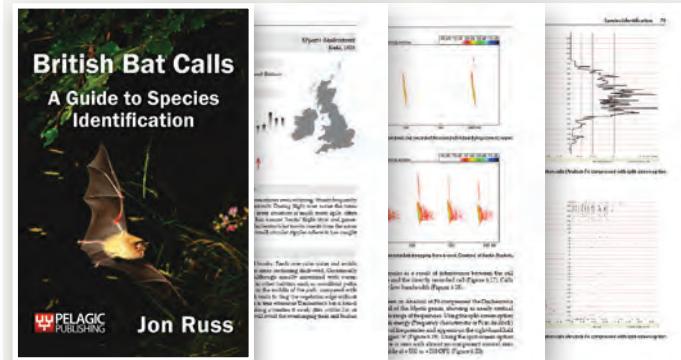
Bats are often the only native mammals on isolated oceanic islands, where more than half of all bat species live. Island Bats is the first book to focus solely on the evolution, ecology, and conservation of bats living in the world's island ecosystems.



\$67 €59 £43.50

British Bat Calls: A Guide to Species Identification

Jon Russ (2012)



British Bat Calls covers topics such as the properties of sound; how bats use sound; bat detection methods; recording devices; analysis software; recording techniques and call analysis. For each species found in the British Isles, information is given on distribution; emergence times; flight and foraging behaviour; habitat; and echolocation including parameters for common measurements.

181961 PBK

\$46 €41 £29.99

A Guide to British Bats

Kate Jones and Allyson Walsh (2001)

There are over a thousand species of bats, and Britain is home to 16 species. This fold-out guide has two parts: a guide to identifying bats in flight using bat detectors, flight patterns, size, habitat and emergence time after dusk; and a key labelling the different body parts of a bat for identifying bats in the hand.

129064 FSC Guide

\$5 €5 £3.50

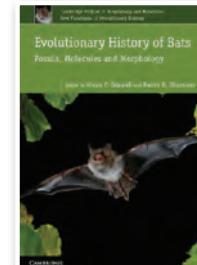


Evolutionary History of Bats: Fossils, Molecules and Morphology

Gregg Gunnell and Nancy Simmons (2012)

Advances in morphological and molecular methods continue to uncover new information on the origin and evolution of bats. Presenting some of the most remarkable discoveries and research involving living and fossil bats, this book explores their evolutionary history from a range of perspectives.

193982 PBK



\$69 €61 £44.99

193981 HBK

\$139 €122 £89.99

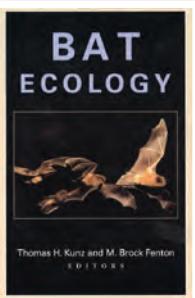
Bat Evolution, Ecology, and Conservation

Ed. by Rick Adams and Scott Pedersen (2013)

Bat Evolution, Ecology, and Conservation consists of 25 chapters from 57 authors. The chapters are not intended to be exhaustive literature reviews, but instead extended manuscripts that summarise recent research on the evolution, ecology and conservation of bats and bring new and fresh perspectives.

206961 HBK

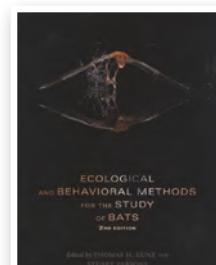
\$205 €180 £133.00



Ecological and Behavioral Methods for the Study of Bats

Ed. by Thomas Kunz and Stuart Parsons (2009)

Widely acknowledged as the primary reference for both amateur and professional bat researchers. The chapters describe the most commonly used field and laboratory techniques and also provide information on many new methods and techniques.



178304 HBK

\$89 €78 £57.50

Bat Ecology

Ed. by Thomas Kunz and Melville Brock Fenton (2005)

Covers the life history and behavioural ecology of bats, from migration to sperm competition and natural selection; functional ecology, including ecomorphology, feeding, and physiology; macroecological issues such as the evolution of ecological diversity, range size, and infectious diseases (including rabies); and conservation challenges facing bats.

152307 PBK

\$49 €43 £31.50

Acoustic Ecology of European Bats

Michel Barataud and Yves Tupinier (2015)

The introduction summarises the physical basics of biological sonar and gives an overview of the technologies used to convert ultrasound into audible frequencies. Identification criteria of 34 European bat species are given in detail, with an entire chapter devoted to the methodology of the acoustic study of foraging habitats. The included DVD provides over 300 sound sequences (both heterodyne and x10 time expansion) collected from formally identified individuals flying in natural conditions.

215856 PBK \$54 €47 £34.99

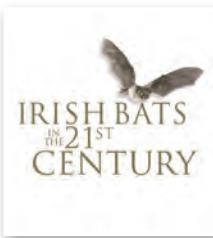


Irish Bats in the 21st Century

Niamh Roche (2014)

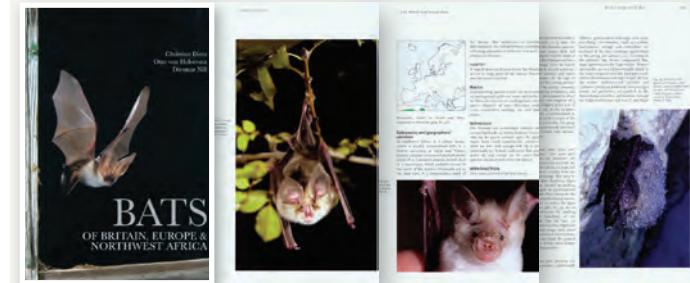
Bats are the most diverse group of Irish terrestrial mammals, with nine confirmed resident species. This is the first book dedicated entirely to these elusive creatures, published by Bat Conservation Ireland, a charity dedicated to the conservation of Ireland's bats that was formed in 2004.

219060 PBK \$37 €32 £23.75



Bats of Britain, Europe and Northwest Africa

Christian Dietz *et al.* (2009)



This comprehensive and superbly illustrated handbook presents for the first time all 51 bat species that occur across Europe and Northwest Africa, taking into account recent taxonomic advances and new species descriptions from over the last few years.

178055 HBK \$69 €61 £44.99

Bats

Phil Richardson (2011)

Phil Richardson uses his experiences of bat watching around the world to describe their complex life cycles. He reveals where to watch and study bats, how to help conserve these threatened mammals and how different species have adapted to varied environments. Discover also how their role in pollination is crucial to the environment in which they live. This book is easy to read and beautifully illustrated.

190227 PBK \$20 €18 £12.99

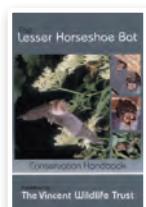


The Lesser Horseshoe Bat: Conservation Handbook

Henry Schofield (2008)

This handbook is aimed primarily at ecological consultants who need to provide mitigation strategies to enable development work. Theoretical aspects of the species' roosting ecology and appropriate survey techniques are presented, as well as clear and practical advice on improving and adapting buildings as roosts.

177164 PBK \$28 €24 £17.96



Bat Surveys: Good Practice Guidelines

Bat Conservation Trust (2012)

Updated and revised edition features new chapters and content, with revised advice and guidance. This is the essential reference and guide for anyone involved in professional bat work. BCT Members receive a 20% discount.

196448 PBK \$39 €34 £24.99

Bats: A World of Science and Mystery

Brock Fenton and Nancy Simmons (2014)



A comprehensive guide to what scientists know about the world of bats. Beginning with a look at bats' origins and evolution the book goes on to address questions related to flight, diet, habitat, reproduction, and social structure. A chapter on echolocation, takes readers through the system of high-pitched calls bats emit to navigate and catch prey. Lush, full-color photographs take the reader into the roosts of bats, from caves and mines to the tents some bats build out of leaves and show bats in flight, feeding and mating.

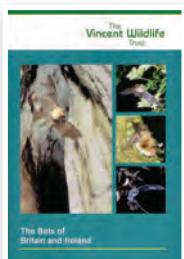
214206 HBK \$33 €29 £21.50

The Bats of Britain and Ireland

Henry Schofield *et al.* (2010)

An excellent introduction to 14 species of bat found throughout Britain and Ireland. Each species description covers roosts, food & feeding, breeding, status & distribution, and identification. Similar species are listed alongside each other.

185067 PBK \$14 €13 £9.23



Habitat Management for Bats: A Guide for Land Managers, Land Owners and Their Advisors

Abigail Entwistle (2001)

This manual is aimed at conservation and land management advisors. Includes advice on managing habitats to assist foraging bats, as well as detailed advice on habitat management to meet the needs of each of the 16 species of bat found in the UK.

95381 PBK \$23 €20 £15.00

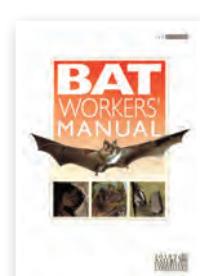


The Bat Workers' Manual

Ed. by AJ Mitchell-Jones and Andrew McLeish (2012)

Detailed information on all aspects of bat surveying - an essential reference for anyone wishing to obtain a licence to carry out bat work in the UK. With excellent drawings by Tom McOwat. Updated information on legislation, and other advice, has also been included.

198731 PBK \$39 €34 £24.99



Bat Conservation

Anna Berthiussen *et al.* (2014)

This book brings together scientific evidence and experience relevant to the practical conservation of bats. For each intervention, the book summarises studies where that intervention has been tested and its effects on bats quantified. The result is a thorough guide to what is known, or not known, about the effectiveness of bat conservation actions throughout the world.

211090 PBK \$31 €27 £19.99



HABITAT BOXES FOR EXTERNAL WALLS & FENCES

The habitat boxes listed below are suitable for fixing to external walls and fences. They can be fixed using screws and wall plugs or screws alone if fitting to a wooden surface such as a shed or fence (fittings are not supplied unless specified). The best aspect and location for boxes depends on which species the boxes are intended for - the following information is for guidance only.



Bat boxes – should be sited at least two metres above ground level away from bright artificial light sources. Bats require different temperature conditions throughout the year so it is normally best to have multiple boxes on different sides of a building - south and west facing boxes will generally be warmer and should make good maternity roosts, whereas cooler east and north facing boxes are more likely to be used during the winter months by males.

Sparrow and Starling boxes – should be located out of direct sunlight and facing away from the prevailing wind in a position that cannot be easily accessed by predators such as cats but which is within a few metres of some vegetation.



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Low Profile WoodStone Bat Box

Material FSC WoodStone
W 290mm H 440mm D 90mm **kg** 4.7

Location Above 2m

Suitable for

These Low Profile Bat Boxes are designed to be robust and hard-wearing and will provide a warm and stable environment for summer bat roosts. There is a landing ramp and rough interior surface to enable easy movement around the box and the front panel is removable for inspection and cleaning.

(Prices exclude VAT)
210689 Low Profile Bat Box \$39 €34 £24.96



Schwegler Wall-Mounted Bat Shelter 2FE

Material Woodcrete
W 250mm H 300mm D 50mm **kg** 2.5

Location Above 2m, bridges or tunnels

Suitable for

This shelter can either be fixed to outside walls to provide a summer hideaway for bats, or it can be installed inside buildings to provide winter hibernation quarters. For winter use, damp cellars, bunkers, bridges and caves protected from ice and frost are ideal locations. The interior has shaped cavities where bats can roost with optimum body contact.

(Prices exclude VAT)
190558 Schwegler Wall-Mounted Bat Shelter 2FE \$49 €43 £31.63



2FE Back view

Wooden Heated Bat Box

Material FSC Wood and Plywood
W 540mm H 600mm D 135mm **kg** 10

Location Above 2m

Suitable for

This Wooden Heated Bat Box is handmade in Yorkshire using FSC certified European Oak, Western Red Cedar timber and Scandinavian plywood.

It has a lead-covered roof to create a top quality durable heated bat box that should last for at least

20 years. Designed for mitigation projects to replace lost roost sites near heat sources such as boilers or heating pipes. This box is designed to work as a maternity roost, with a range of internal conditions and two cavities to provide crevices with differing temperature profiles. The heat source is provided by a high quality vivarium heat mat which can be simply plugged into a domestic mains power supply to provide an average summer temperature of 20 to 30°C and an average winter temperature of 12 to 19°C. Supplied with a 5m cable with a 3amp fused plug, the electrical components are covered by a 5 year guarantee.

(Prices exclude VAT)
211597 Wooden Heated Bat Box \$926 €814 £600.00

BUILT TO ORDER
SEE PAGE 5



Schwegler 1FF with built-in rear panel

Material Woodcrete
W 270mm H 430mm D 140mm **kg** 9.6

Location 4–6m

Suitable for

Our bestselling box for buildings, the 1FF is open at the bottom, meaning that it does not need cleaning. The 1FF is fitted with a roughened rear panel made of wood. The internal width is reduced making it ideal for bats that inhabit crevices such as pipistrelle and noctule bats. The front of the box can easily be swung open for inspection purposes.

(Prices exclude VAT)
174821 Schwegler 1FF \$80 €70 £51.63

BESTSELLER



Heated Bat Roost Box

Material FSC Exterior Grade Plywood
W 260mm H 490mm D 13mm **kg** 8

Location Above 2m

Suitable for

The Heated Bat Roost Box requires no wiring and is ready to plug into the mains. The temperature is controlled by a thermostat from inside the building. This connects to the bat box via a 10m cable. The warm interior makes it perfect for large colonies or as a maternity unit for crevice-dwelling bats such as common and soprano pipistrelles and barbastelles. Three internal crevices provide a range of temperature zones to choose from.

A programmable version of the box is also available which allows you to set daily high and low temperatures for each month of the year. It is also possible to set the daily ramp duration for adjusting between daily high and low temperatures as well as the monthly ramp duration for transition between months. The control box of the programmable version allows wireless internet connection which means that it can be set up and monitored off site. Three additional bat boxes can also be added to the programmable controller.

All boxes have enclosed and double insulated electrical parts and an integrated residual current circuit breaker which protects users from electrical shock. Inside the box the ceramic heater is fitted with a "fireguard".

(Prices exclude VAT)
217028 Heated Bat Roost Box \$450 €396 £291.67
219699 Programmable Heated Bat Roost Box \$1,152 €1,012 £746.67
219718 Additional Heated Bat Roost Box \$366 €322 £237.50
218147 Extension Cable for Heated Bat Box (5m) \$68 €60 £44.17



CedarPlus Triple Sparrow House**Material** CedarW 370mm H 310mm D 185mm **kg** 2.5**Location** 2-4m**Suitable for**

An attractive, natural wooden bird box constructed from cedar for outstanding performance. House and tree sparrows are sociable birds that nest in colonies, so the Triple Sparrow House is designed to provide comfortable accommodation for three pairs, nesting side-by-side. The front door hinges forward for inspection and the entrance hole is 32mm.

(Prices exclude VAT)

193072 Triple Sparrow House

BESTSELLER**Schwegler 1SP Sparrow Terrace****Material** WoodcreteW 430mm H 245mm D 200mm **kg** 14**Location** 2-4m**Suitable for**

House sparrows are colonial cavity nesters and so this Woodcrete terrace provides the perfect nesting site, with three families in separate compartments under one roof. The Schwegler sparrow terrace is designed to be fixed high up on walls, but can also be built into a wall. The terrace is available in two colours and has a removable front panel for cleaning.

(Prices exclude VAT)

185100 1SP Brown

185099 1SP Stone

BESTSELLER**Schwegler Bat Roost 1FQ****Material** WoodcreteW 350mm H 600mm D 90mm **kg** 15.8**Location** Above 2m**Suitable for**

The 1FQ is designed to be fitted to the external wall of a house, barn or other building. Alternatively it can be fitted inside a roof space. The shape and design make it equally attractive to bats as a roost or a nursery. Easy to attach to most types of walls, it features a special porous coating to help maintain the ideal humidity inside.

(Prices exclude VAT)

177099 Schwegler Bat Roost 1FQ \$116 €102 £74.96

**House Sparrow Terrace FSC Nest Box****Material** FSC WoodW 410mm H 325mm D 190mm **kg** 3.6**Location** 2-4m**Suitable for**

The House Sparrow Terrace is a wide box which is split into three chambers and which will thereby provide nesting space for three pairs. It is made from FSC timber and has an attractive flamed surface and black roof. The box may be cleaned out and washed using hot water during the winter after any inhabitants have left.

(Prices exclude VAT)

201458 House Sparrow Terrace \$48 €42 £31.25

**Vivara Pro WoodStone House Sparrow Nest Box****Material** FSC WoodStoneW 290mm H 210mm D 160mm **kg** 7**Location** 2-4m**Suitable for**

This House Sparrow Nest Box is manufactured from WoodStone, a mix of concrete and FSC wood fibres which has good insulating properties and provides excellent protection from predators. It contains two nesting chambers and can be integrated into the masonry of a new house or fixed onto an external wall using strong screws and wall plugs (not included). If possible it should be positioned near to vegetation.

(Prices exclude VAT)

210670 WoodStone House Sparrow Nest Box

1FTH & 2FTH Schwegler Bat Summer Roosts**Material** WoodcreteW 500mm H 700mm D 165mm **kg** 25 1FTH **kg** 25 2FTH **kg** 25.4 **Access Ramp** **kg** 9 **NEW****Location** Above 2m**Suitable for**

The Schwegler 1FTH and 2FTH are suitable for all bat species inhabiting forests and woodland, providing an ideal summer roost site. The 1FTH has a corrugated Woodcrete and plywood interior whilst the 2FTH has an all Woodcrete interior. Both boxes have five roosting chambers with spatially and climatically different conditions to suit a variety of species.

An Access Ramp is also available to allow these boxes to be integrated into an external wall. The Bracket Kit allows boxes fitted with the Access Ramp to be fixed on to a wall.

(Prices exclude VAT)

221046 1FTH Schwegler Bat Summer Roost - Grey

221047 1FTH Schwegler Bat Summer Roost - Black

221112 2FTH Schwegler Bat Summer Roost - Grey

221113 Access Ramp for Recessed Installation

221118 Bracket Kit



Please note: This box must be delivered on a pallet incurring a minimum shipping charge of £35.00+ VAT for UK delivery.

Sparrow Nest Box System**Material** FSC PlywoodW 376mm H 240mm D 170mm **kg** 2.2 (terrace)**Location** 2-4m**Suitable for**

These exterior ply nest boxes are sold either as a terrace of three boxes, or individually so you can encourage a nesting colony of house or tree sparrows in the configuration you choose. The nest boxes have a fixed roof so they can be installed under the eaves, drainage slot and slide-out floor, and are coated with a non-toxic water repellent finish. The nest boxes can be fitted to walls, trees and fences.

(Prices exclude VAT)

180626 Single Box \$17 €15 £10.79

179139 Terrace \$48 €42 £31.25

**Vivara Pro WoodStone Starling Nest Box****Material** FSC WoodStoneW 220mm H 385mm D 215mm **kg** 7.4**Location** 2-4m**Suitable for**

A reduction in natural cavities and changes to building construction mean that starling nesting sites have become rare, so providing new nesting sites is a great way to help this species. This nest box has a 45mm diameter entrance hole which makes it ideal for starlings. As these birds are very gregarious and prefer to nest in colonies, grouping several boxes together will help to encourage occupancy.

(Prices exclude VAT)

210682 Starling Nest Box \$36 €32 £23.29



HABITAT BOXES FOR EXTERNAL WALLS & FENCES

The habitat boxes listed below are suitable for fixing to external walls and fences. They can be fixed using screws and wall plugs or screws alone if fitting to a wooden surface such as a shed or fence (fittings are not supplied unless specified).



Swift boxes – are normally located under the eaves, at least 5m above ground level, in a location that provides a clear access flight path. Several swift boxes can be clustered together as swifts naturally nest in colonies.

Swallows – prefer to nest inside buildings such as barns, stables, sheds, or out houses. Locate swallow nests at least 2m above ground level within buildings that always have an open access way (e.g. window, archway, stable door, etc.).

House Martin – nests should be placed under the eaves at least 2m above ground level. Several house martin nests can be clustered together as house martins naturally nest in colonies.

Garden bird boxes – should be located out of direct sunlight and prevailing winds and in a position that cannot be easily accessed by predators such as cats but which is within a few metres of some vegetation.



BUYERS GUIDE ▶ 2015

Schwegler 2H Open-Fronted Bird Box

Material Woodcrete
W 150mm H 200mm D 200mm 2.5

Location Below 2m, (above 2m for flycatchers)
Suitable for

The 2H will attract robins, spotted flycatchers, wrens, black redstarts and pied wagtails. The 2H should be placed on buildings and not on trees unless in dense climbing plant cover (e.g. ivy). The 2H should be hung sideways, with the entrance at a 90° angle to the wall.

(Prices exclude VAT)
178019 2H Bird Box \$31 €27 £19.96

BESTSELLER



Schwegler 2HW Nest Box

Material Woodcrete
W 200mm H 200mm D 300mm 5.1

Location Below 2m (Above 2m for flycatchers)
Suitable for

The 2HW is designed for species that nest in cavities or recesses, particularly those which prefer an open, balcony-type entrance such as redstart, wagtail and flycatchers. The wooden nesting chamber insert makes the box secure against predators such as magpies and jays and it can be removed for cleaning. A replacement insert can be purchased separately.

(Prices exclude VAT)
189129 2HW Nest Box \$39 €34 £24.96
197006 Replacement insert \$11 €10 £7.08

Schwegler Bird House

Material Woodcrete
W 210mm H 330mm D 150mm 7.5

Location 2-4m
Suitable for

A practical yet attractive bird house which can be attached to a tree trunk, wall or fence using the bracket on the back. The 32mm hole is perfect for tits, sparrows, redstarts, nuthatches and pied flycatchers.

(Prices exclude VAT)
187149 Bird House \$51 €45 £33.29



Schwegler Swallow Nest 10

Material Woodcrete
W 250mm H 110mm D 140mm 1

Location Above 2m
Suitable for

This Woodcrete nest provides a durable natural alternative for swallows when mud is in short supply. Locate inside buildings such as barns, stables, sheds or outhouses, ensuring that there is always access for the birds through a window or opening.

(Prices exclude VAT)
174809 Swallow Nest 10 \$22 €19 £14.13



Schwegler 1MR Avianex

Material Woodcrete
W 190mm H 270mm D 230mm 5.5

Location 2-4m
Suitable for

The Avianex is ideal for fixing to the outer wall of houses. The 32mm entrance hole is suitable for tits, sparrows, redstarts, nuthatches and pied flycatchers. Removable front panel for cleaning.

(Prices exclude VAT)
174790 Brown \$51 €45 £33.29
174780 Olive Green \$51 €45 £33.29
174788 Red \$51 €45 £33.29



WoodStone Swallow Nest Bowl

Material WoodStone and Plywood
W 200mm H 210mm D 110mm 0.6

Location Above 2m
Suitable for

This WoodStone Swallow Bowl is mounted on an exterior grade plywood board. It should be sited inside a building that allows easy access for the birds via an open door or window, such as a garage or outhouse.

(Prices exclude VAT)
209824 Swallow Nest Bowl \$18 €16 £11.63



HABITAT BOXES FOR EXTERNAL WALLS & FENCES

Shropshire Swift box

Material Plywood
W 430mm **H** 174mm **D** 265mm **kg** 3.2

Location Beneath eaves

Suitable for 

The Shropshire Swift Box is designed with a narrow entrance hole (30mm wide) in the base. This design means that it is very unlikely to be inhabited by house sparrows or starlings who often use traditional style swift boxes. This box should be placed in a position that provides the birds with a clear flight-path as swifts need to be able to freefall as they leave the nest.

(Prices exclude VAT)   
210668 Shropshire Swift Box **\$45** **€40** **£29.16**

**WoodStone and Timber Swift Nest Box**

Material FSC certified WoodStone and Exterior Grade Plywood
W 380mm **H** 240mm **D** 230mm **kg** 5.6

Location Beneath eaves

Suitable for 

This WoodStone Swift Nest Box has a narrow entrance in the base, ideal for swifts and reduces competition from starlings and house sparrows. The WoodStone construction ensures the nest box is long lasting. Where possible the nest should be sited under the shelter of eaves or overhanging roofs ensuring the birds have a clear flight path to the entrance.

(Prices exclude VAT)   
217166 WoodStone and Timber Swift Nest Box **\$39** **€34** **£24.96**



Triple Cavity No. 17A

Schwegler Swift Nest Box No.17

Material Woodcrete
(Single Cavity) No. 17 - W 150mm **H** 150mm **D** 340mm **kg** 3.1
(Triple Cavity) No. 17A - W 150mm **H** 150mm **D** 980mm **kg** 7.1

Location Beneath eaves

Suitable for  

This box is constructed from plant fibre and concrete and should be sited 6–7 metres above the ground, built in, or surface mounted under the eaves of a building, or on a steep rock face. Swifts nest in colonies so several boxes can be sited together, or use the triple cavity box.

(Prices exclude VAT)   
179225 (Single Cavity) No. 17 **\$71** **€62** **£45.79**
189203 (Triple Cavity) No. 17A **\$180** **€158** **£116.63**

Schwegler Swift Box No.18

Material Woodcrete
W 500mm **H** 190mm **D** 220mm **kg** 4.5

Location  Beneath eaves

Suitable for 

Designed to restore nesting sites for swifts in buildings by fixing beneath eaves. The single nest chamber is made from durable Woodcrete and the backing board is exterior grade chipboard ready for painting to match the building. The nest can be easily slid out for cleaning and inspection.

(Prices exclude VAT)   
179224 Swift Box No.18 **\$71** **€62** **£45.79**

**Woodstone Swift Nest Box**

Material WoodStone
W 380mm **H** 245mm **D** 265mm **kg** 5.4

Location Beneath eaves

Suitable for 

This Swift Nest Box is constructed entirely out of WoodStone meaning it is long lasting and won't rot away like traditional nest boxes. The nest entrance is located on the underside of the box, which is ideal for swifts and an opening at the back of the box allows for easy cleaning. Where possible the nest should be sited under the shelter of eaves or overhanging roofs ensuring the birds have a clear flight path to the entrance.

(Prices exclude VAT)   
217160 Woodstone Swift Nest Box **\$45** **€40** **£29.13**

**FSC Wooden Swift Box**

Material FSC Plywood
W 380mm **H** 280mm **D** 160mm **kg** 1.9

Location Beneath eaves

Suitable for 

This Wooden Swift Nest Box is a single compartment nest box constructed from exterior grade FSC plywood. The oval entrance hole is specifically designed to attract swifts.

(Prices exclude VAT)   
198916 FSC Wooden Swift Box **\$48** **€42** **£31.25**

**Vivara Pro WoodStone House Martin Nests**

Material FSC WoodStone
W 200mm/380mm **H** 120mm **D** 150mm **kg** 1.5kg/3.6kg

Location Beneath eaves

Suitable for 

These nests have been specially designed to appeal to house martins and are constructed from WoodStone which is extremely long-lasting and provides great thermal properties. The backing of the nest is also WoodStone which gives them improved durability. Available in single units with either a right-hand or left-hand entrance or as a double unit with two nests side by side.

(Prices exclude VAT)   
209827 Right Entrance **\$19** **€17** **£12.46**
209828 Left Entrance **\$19** **€17** **£12.46**
210651 Double Nest **\$26** **€23** **£16.63**

HABITAT BOXES FOR EXTERNAL WALLS & FENCES



Droppings Board for House Martins

Material Eco-plate
W 504mm **H** 175mm **D** 283mm **kg** 0.26

Location Beneath Nest
Suitable for

The Droppings Board is designed to catch unwanted mess that results from a colony of house martins. The gap between the wall and the board prevents further nests being built under the board. For best results site about 60cm below nests.

(Prices exclude VAT)

217276 Droppings Board for House Martins **\$22** **€19** **£14.16**



House Martin Nests

Material Exterior Grade Plywood and WoodStone
Singles - **W** 200mm **H** 115mm **D** 160mm **kg** 0.9
Doubles - **W** 380mm **H** 115mm **D** 160mm **kg** 1.8

Location Beneath eaves
Suitable for

These House Martin Nests are constructed out of long lasting FSC certified WoodStone. They have been designed specifically to attract house martins and provide an excellent artificial nest solution for areas where traditional nesting sites have been lost.

(Prices exclude VAT)

210792 Right-hand Entrance **\$18** **€16** **£11.66**
 210793 Left-hand Entrance **\$18** **€16** **£11.66**
 210794 Double Entrance **\$28** **€25** **£18.29**



Schwegler Dipper and Wagtail Nest Box 19

Material Woodcrete
W 190mm **H** 370mm **D** 190mm **kg** 4.7
Location Under bridges
Suitable for

This box has brackets to attach to arches or bridge walls and is constructed to be safe from smaller predators. It is made from a plant fibre and concrete mixture and is suitable for Dippers or grey wagtails when sited near to running water. For the pied wagtail it may also be used in wetlands.

(Prices exclude VAT)

183016 Nest Box 19 **\$67** **€59** **£43.29**

Schwegler House Martin Nests

Material Woodcrete
W 430mm **H** 175mm **D** 175mm **kg** 6.3

Location Beneath eaves
Suitable for

These durable Woodcrete nests are ready for immediate use when birds return for the summer. This House Martin Terrace can be mounted on any external wall regardless of whether it has eaves or not and the contemporary design is an attractive addition to urban areas. Ensure the nest is at least 2m above the ground on the sheltered side of a building. Each individual nest can be removed separately for cleaning and inspection.

(Prices exclude VAT)

	\$	€	£
183015 No. 11 - Terrace	\$94	€82	£60.79
189182 Woodcrete Droppings Board	\$39	€34	£24.96



Schwegler 9A and 9B House Martin Nests

Material Woodcrete and chipboard
9A Dimensions - **W** 460mm **H** 110mm **D** 140mm **kg** 2.7
9B Dimensions - **W** 165mm **H** 110mm **D** 140mm **kg** 1.4

Location Beneath eaves
Suitable for

The durable 9A and 9B House Martin Nests are easily fixed under the eaves on the exterior walls of buildings to provide immediately available nesting space for returning house martins. The chipboard backing makes them lightweight and can be painted to match the building. Ensure that the nest is at least 2m above the ground on the sheltered side of a building. Available as a single (9B) or double nest (9A).

(Prices exclude VAT)

	\$	€	£
174802 No.9A - Double Nest	\$39	€34	£24.96
193064 No. 9B - Single Box	\$24	€21	£15.79
189181 Chipboard Droppings Board	\$17	€15	£10.79



Grey Wagtail Nest Box

Material Ecoplate
W 195mm **H** 170mm **D** 310mm **kg** 2.3
Location Under bridges
Suitable for

This nest box is designed to be fitted to walls close to fast flowing water, such as the underside of the bridge. It is constructed from Ecoplate which is a durable, insulating material. Fittings for this box are not included.

(Prices exclude VAT)

	\$	€	£
210669 Grey Wagtail Nest Box	\$24	€21	£15.79

BOXES FOR PONDS, RIVERS & LAKES

Many birds, such as kingfishers, dippers, ducks and wagtails nest in locations close to water and a range of nest boxes are available for these species.

The dipper and wagtail boxes – are designed to be installed close to rivers and streams either on the walls of culverts or bridges.

The nesting tunnels – should be buried in the river bank with their entrance at least 1m above the high watermark.

Other animals such as **ducks, frogs, toads** and **bats** including soprano pipistrelle and Daubenton's bat will also benefit from habitat boxes and roosts provided near to ponds and lakes.

Kingslake Duck Box

Material FSC Plywood
W 440mm **H** 330mm **D** 280mm **kg** 5

Location 1m above water

Suitable for  



The Kingslake Duck Box is designed to suit a wide range of waterfowl providing them with a safe and sheltered nesting area. The hinged lid provides easy access for cleaning.

(Prices exclude VAT)

216701 Kingslake Duck Box

\$77 €68 £50.00

Duck Nesting Baskets

Material Willow
Round - W 350mm H 350mm D 900mm

Long - W 330mm H 330mm D 920mm

Location 1m above water

Suitable for  



These hand-woven duck baskets provide a safe shelter and nesting place for ducks and moorhens. Place at the edge of a pond, ideally amongst dense vegetation or secure to a strong and stable support structure up to a metre above the water. Support poles and fixings not included.

(Prices exclude VAT)

209228 Round Basket \$32 €28 £20.83
209229 Long Basket \$32 €28 £20.83

Sand Martin Nest Box

Material Ecoplate
W 150mm **H** 150mm **D** 570mm **kg** 8.3

Location Within bank

Suitable for 



This nest box is ideal for use in artificial banks or cliffs and is designed to replicate the sand martins natural nesting strategy. It is most suitable for use on artificial waterways or natural waterways lacking suitable banks. Sand martins nest in colonies of at least 12 pairs, so if the aim is to attract a new colony ensure at least 12 nest tunnels are used.

(Prices exclude VAT)

217283 Sand Martin Nest Box \$36 €32 £23.29

Schwegler Kingfisher and Sand Martin Nest Tunnel

Material Woodcrete
W 150mm **H** 125mm **D** 580mm **kg** 10

Location Within bank

Suitable for 



This Schwegler nest tunnel provides vital nesting sites on waterways lacking suitable banks. The floor of the nest box and tunnel has a fine mesh grid to deter rodents and the nesting chamber has a removable lid for cleaning. Constructed from lightweight concrete, it is air-permeable, preventing condensation in the nest box.

Please note: This box must be delivered on a pallet incurring a minimum shipping charge of £35.00+ VAT for UK delivery.

(Prices exclude VAT)

183017 Nest Tunnel \$116 €102 £74.96



Frogitat Ceramic Frog and Toad House

Material Ceramic
W 210mm **H** 150mm **D** 210mm **kg** 1.7

Location Ground

Suitable for  

The Frogitat ceramic Frog and Toad House provides a naturally cool, safe space with an 'overwintering' shelf at the rear and an open front area as a cool 'summer retreat'. Position in a quiet, shaded area near a pond or damp area.

(Prices exclude VAT)

191396 Frogitat

\$20 €18 £12.92

WoodStone Frog and Toad House

Material FSC WoodStone
W 310mm **H** 90mm **D** 310mm **kg** 2.7

Location Ground

Suitable for 



This shelter has been purposely designed to create a damp and shady space, perfect for amphibians seeking refuge from the summer sun or for hibernation in the winter.

(Prices exclude VAT)

209839 Green \$23 €20 £14.96
210777 Brown \$23 €20 £14.96

Frogilo Frog and Toad House

Material Ceramic
W 200mm **H** 200mm **D** 200mm **kg** 2

Location Ground

Suitable for 



The Frogilo Frog and Toad House is handmade in frost resistant ceramic and provides a safe retreat for frogs and toads. The ceramic shelf offers an overwintering area and is partially cutaway to offer contact with cool soil in the summer.

(Prices exclude VAT)

216744 Frogilo Frog and Toad House \$26 €23 £16.66

Vivara Pro WoodStone Kingfisher Tunnel

Material FSC WoodStone
W 275mm **H** 165mm **D** 825mm **kg** 11.8

Location Within bank

Suitable for 



The Kingfisher tunnel should be placed in a vertical bank beside a slow moving river or lake. It should be completely buried so that only the entrance is visible and you should ensure that the entrance is at least one metre above the maximum water level. Before use, put a layer of soil in the nest chamber and make a small cup shape to help keep the eggs together.

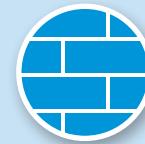
(Prices exclude VAT)

210678 Kingfisher Tunnel \$64 €56 £41.66

The habitat boxes listed below are designed to be built into new buildings or added to older buildings during renovation projects. The best aspect and location for boxes will depend on which species the boxes are intended for - the following information is for guidance only.

Bat boxes – should be sited at least two metres above ground level away from bright artificial light sources. Bats require different temperature conditions throughout the year so it is normally best to have multiple boxes on different sides of a building - south and west facing boxes will generally be warmer and should make good maternity roosts whereas cooler east and north facing boxes are more likely to be used by males and during the winter months.

Swift boxes – are normally located under the eaves, at least 5m above ground level, in a location that provides a clear access flight path. Several swift boxes can be clustered together as Swifts naturally nest in colonies



Bat access roof tiles

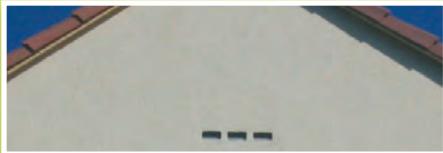
Schwegler Bat Tube

Material Woodcrete

W 200mm **H** 475mm **D** 125mm 9.5

Location Above 2m

Suitable for



The 1FR tube system maintains excellent climatic conditions within. Can be installed on external walls, under wooden panelling or in building cavities. The 2FR version has holes in the sides which, when set in modular fashion, provides a larger space for bats to move around in.

(Prices exclude VAT)

178018 Schwegler Bat Tube 1FR

BESTSELLER



180018 Schwegler Bat Tube 2FR

\$100 €88 £64.96

\$100 €88 £64.96

Build-In WoodStone Bat Box

Material FSC WoodStone and Plywood

W 220mm **H** 500mm **D** 140mm 6.2

Location Above 2m (5–7m preferred)

Suitable for



The Build-In WoodStone Bat Box has been designed to fit into the cavity of house walls, with the entrance sitting flush with the outside bricks. Manufactured from hard-wearing WoodStone and plywood with removable side panels so that several boxes can be placed side by side. WoodStone maintains a consistent temperature inside, providing excellent insulation for roosting bats.

(Prices exclude VAT)

208337 Build-In WoodStone Bat Box

\$32 €28 £20.79

Enclosed Bat Box 'C'

Material Brick

Small **W** 215mm **H** 215mm **D** 105mm 6.7

Large **W** 215mm **H** 290mm **D** 105mm 9.2

Location Above 2m

Suitable for



The Enclosed Bat Box 'C' can be integrated directly into the brickwork to produce a discreet but attractive home for bats. The inside of the box is designed to create several roosting zones which are ideal for crevice dwelling bats such as the pipistrelle.

This box is available in two sizes and three colours. No maintenance required.

Please note: Each box will incur a shipping charge of £10.00+VAT for UK delivery

(Prices exclude VAT)

219886 Small Red	\$166	€146	£107.50
219887 Small Blue	\$166	€146	£107.50
219888 Small Gold	\$166	€146	£107.50
208936 Large Red	\$166	€146	£107.50
210555 Large Blue	\$166	€146	£107.50
210556 Large Gold	\$166	€146	£107.50

Standard Bat Bricks

Material Brick

W 215mm **H** 60mm **D** 100mm 2

Location Above 2m

Suitable for



The Standard Bat Brick is shaped to allow bats access to cavity walls. They can be incorporated during both new build and renovation projects.

(Prices exclude VAT)

197697 Standard Bat Brick - Red

\$14 €12 £8.75

197701 Standard Bat Brick - Golden

\$14 €12 £8.75

197702 Standard Bat Brick - Brown

\$14 €12 £8.75

WoodStone Lincolnshire Bat Block

Material WoodStone

W 310mm **H** 180mm **D** 60mm 2.2

Location Above 2m

Suitable for



The WoodStone Lincolnshire Bat Block was developed with the Lincolnshire Bat Group to provide a suitable hibernating habitat for bats. The block has a number of different roosting areas. It can be attached using the two mounting holes and is suitable for use in cellars, tunnels and other hibernation sites.

(Prices exclude VAT)

217814 WoodStone Lincolnshire Bat Block

\$19 €17 £12.46

Habitat Bat Box**BESTSELLER****Material** Concrete and Brick **Bat Conservation Trust approved****W** 215mm **H** 440mm **D** 102mm **kg** 13.8**Location** Above 2m**Suitable for**

The Habitbat Bat Box can be incorporated into the fabric of a building under construction or renovation and is the width of one standard UK brick. A variety of bespoke facings can be fitted to suit the building, whether in brick, stone or with no facing (plain) so that render or timber facing may be applied. Alternatively the box is available ready faced in either red or blue Staffordshire Smooth Brick.

(Prices exclude VAT)

	\$	€	£
193475 Staffordshire Smooth Red Brick	\$167	€147	£108.33
193476 Staffordshire Smooth Blue Brick	\$167	€147	£108.33
193481 Plain with Red Plinth	\$167	€147	£108.33
193480 Plain with Blue Plinth	\$167	€147	£108.33
193482 Plain with Buff Plinth	\$167	€147	£108.33
193477 Custom Brick Facing	\$185	€163	£120.00
193479 Custom Stone Facing	\$185	€163	£120.00



Please note: Habitat boxes must be delivered on a pallet incurring a minimum shipping charge of £30+VAT for UK delivery

Bat Access Roof Tiles**Material** Clay**W** 159mm **H** 267mm**Location** Roof**Suitable for**

Each set consists of three tiles. The upper tile has a raised tunnel section which provides entry for the bats through the space below. The two lower tiles have cutaway sections to improve this access. Available in three colours. **Please note:** Additional postage and packing charges will apply.

(Prices exclude VAT)

	\$	€	£
210616 Smooth Antique	\$39	€34	£24.99
210617 Medium Antique	\$39	€34	£24.99
210618 Dark Antique	\$39	€34	£24.99

**Habitat Bat Access Slate****Material** Slate **Bat Conservation Trust approved****W** 375mm **H** 420mm **D** 80mm **kg** 1.3**Location** Roof**Suitable for**

The Habitbat Bat Access Slate consists of a standard sized slate with a capped vent which allows access to roof felt or roof space. We can supply either a standard slate or custom slate that is coloured and sanded to match your roof exactly. Endorsed by the Bat Conservation Trust. **Please note:** Habitbat boxes must be delivered on a pallet incurring a minimum shipping charge of £30+VAT for UK delivery

(Prices exclude VAT)

	\$	€	£
207215 Standard Slate	\$140	€123	£90.83
207216 Custom Slate	\$154	€136	£100.00

**Norfolk Bat Brick****Material** Brick**W** 70mm **H** 200mm **D** 100mm **kg** 2.5**Location** Above 2m. Bridges or tunnels**Suitable for**

Norfolk Bat Bricks are designed for typical crevice dwelling species and are intended for use in dark, damp places with little disturbance. The bricks are not designed to provide entry into a cavity but provide excellent hibernation recesses.

(Prices exclude VAT)

	\$	€	£
201457 Norfolk Bat Brick	\$30	€26	£19.50

**Enclosed Bat Box 'B'****Material** Brick**Small** **W** 215mm **H** 215mm **D** 105mm **kg** 5.8**Large** **W** 290mm **H** 290mm **D** 105mm **kg** 8**Location** Above 2m**Suitable for** 

The Enclosed Bat Box 'B' is designed to be integrated into the wall of new buildings or conservation projects and is intended to provide summer roosting space for pipistrelles. It provides a discreet home for bats with several roosting chambers, offering a range of temperatures within the box. The entrance at the bottom allows droppings to fall out, meaning the box is maintenance free. This bat box is available in two sizes and three colours.

Please note: Each box will incur a shipping charge of £10.00+VAT for UK delivery

(Prices exclude VAT)

	\$	€	£
214595 Small Red	\$141	€124	£91.67
214596 Small Blue	\$141	€124	£91.67
201573 Small Buff	\$141	€124	£91.67
214598 Large Red	\$141	€124	£91.67
214599 Large Blue	\$141	€124	£91.67
214597 Large Buff	\$141	€124	£91.67

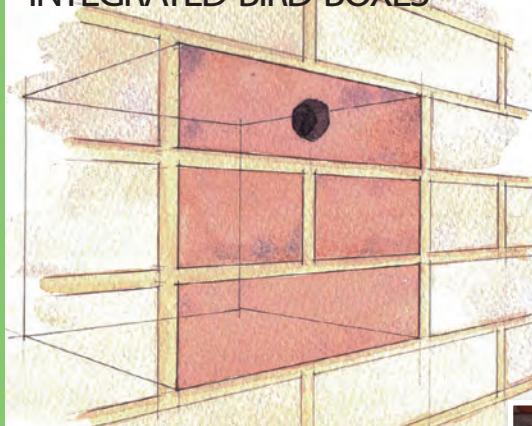
**Schwegler Summer & Winter Box 1W1****Material** Woodcrete**W** 345mm **H** 545mm **D** 95mm **kg** 15**Location** Above 2m**Suitable for**

This box is designed for summer and winter use. The 1WQ is delivered without coating and is designed to be flush-mounted into a wall. If desired it can be painted with an air-permeable paint to match the colour of the background wall.

(Prices exclude VAT)

	\$	€	£
187994 Schwegler Summer and Winter Box 1W1	\$116	€102	£74.97

INTEGRATED BIRD BOXES



BUILT TO ORDER
SEE PAGE 5

Sparrow & Starling Boxes

Material Concrete and Brick

Starling - W 215mm H 215mm D 150mm **kg 3**Sparrow - W 215mm H 215mm D 135mm **kg 3**Location **I** 2-4mSuitable for **EE**

Loss of nesting sites is one of the reasons for the dramatic decline in house sparrow & starling populations. These boxes are made of insulating concrete with an internal nesting space which can be incorporated into a building as it is built or renovated. The box is designed especially to be aesthetically pleasing and can be unfaced, or faced with red brick, blue brick or custom brick or stone to match to the building.

(Prices exclude VAT)

	\$	€	£
197678 Red Brick Starling	\$170	€149	£110.00
197681 Blue Brick Starling	\$170	€149	£110.00
197682 Unfaced Starling	\$170	€149	£110.00
197683 Custom Facing Starling	\$186	€164	£120.83
197663 Red Brick Sparrow	\$170	€149	£110.00
197664 Blue Brick Sparrow	\$170	€149	£110.00
197666 Unfaced Sparrow	\$170	€149	£110.00
197667 Custom Facing Sparrow	\$186	€164	£120.83

Please note: These boxes must be delivered on a pallet incurring a minimum shipping charge of £30+VAT for UK delivery



Schwegler Brick Nest Boxes

Material Woodcrete

Type 24 - W 180mm H 235mm D 180mm **kg 7.3**Type 25 - W 265mm H 180mm D 220mm **kg 8.8**Type 25A - W 320mm H 180mm D 150mm **kg 4.5**Type 26 - W 180mm H 190mm D 180mm **kg 5.4**Type 27 - W 180mm H 265mm D 240mm **kg 7.3**Location **I** Above 2mSuitable for **EE**

32mm Hole



Swift Box



Open Fronted



Woodcrete nesting boxes designed for installation into the fabric of a building with the front of the box flush with the wall. The 32mm entrance hole is suitable for tits and house sparrows and the open-fronted nestbox will attract pied wagtails, spotted flycatchers and black redstarts.

(Prices exclude VAT)

	\$	€	£
183018 Type 24-32mm hole	\$48	€42	£30.79
183019 Type 25 - Swift Box	\$48	€42	£30.79
189438 Type 25A - Enlarged Swift Box	\$77	€68	£49.96
183020 Type 26 - Open Fronted	\$48	€42	£30.79
181536 Type 27 - Bat Box	\$54	€47	£34.96

Woodstone Build-in Open Nest Box

Material FSC WoodStone

W 220mm H 180mm D 180mm **kg 3.5**Location **I** Above 2mSuitable for **EE**

The WoodStone Build-in Open Nest Box is designed to be built into the walls of a new build or renovation. It provides much needed nest space for species such as robins, wagtails and black redstarts.

(Prices exclude VAT)

217194 Woodstone Build-in Open Nest Box

\$ 23 € 20 £ 14.96



WoodStone Build-in House Sparrow Nest Box

Material FSC WoodStone

W 440mm H 180mm D 160mm **kg 6.6**Location **I** 2-4mSuitable for **EE**

The WoodStone Build-in House Sparrow Nest Box measures three brick courses high making it easy to incorporate into walls during construction or renovation. The front of the box can be removed for cleaning or inspection.

(Prices exclude VAT)

217252 WoodStone Build-in House Sparrow Nest Box

\$ 36 € 32 £ 23.29



Terraced Sparrow Box

Material Concrete

W 440mm H 215mm D 150mm **kg 5**Location **I** 2-4mSuitable for **EE**

This Terraced Sparrow Box is a large, solid box made from insulating concrete with three internal nesting spaces. This box is ideal for house sparrows which prefer to nest near to other pairs. The box is designed to be built incorporated into the fabric of a building, with various designs to allow you to match it as closely as possible to the building.

Please note: These boxes must be delivered on a pallet incurring a minimum shipping charge of £30+VAT for UK delivery

(Prices exclude VAT)

218683 Red Brick

\$ 219 € 192 £ 141.67

218684 Blue Brick

\$ 219 € 192 £ 141.67

218685 Unfaced

\$ 219 € 192 £ 141.67

218686 Custom Brick Facing

\$ 237 € 208 £ 153.33

WoodStone Build-in Swift Nest Box A

Material FSC WoodStone
W 310mm H 170mm D 170mm **kg** 4.6

Location Beneath eaves

Suitable for 

This build-in swift box is designed to be incorporated into the wall of a building and provides an ideal nesting site for swifts. The WoodStone material means that this nest will not rot away or deteriorate.

(Prices exclude VAT)

217262 WoodStone Build-in Swift Nest Box A **\$32** **€28** **£20.79**



BUILT TO ORDER
SEE PAGE 5

WoodStone Build-in Swift Nest Box B

Material FSC WoodStone
W 330mm H 190mm D 160mm **kg** 7

Location Beneath eaves

Suitable for  

This build-in swift box can be built into or mounted on a wall and is designed specifically to attract swifts. The front of the box can be removed for cleaning or inspection.

(Prices exclude VAT)

217275 WoodStone Build-in Swift Nest Box B **\$32** **€28** **£20.79**



Eco-Habitat for Swifts

Material Brick
W 326mm H 140mm D 140mm **kg** 4.5

Location Beneath eaves

Suitable for 



The Eco-Habitat for Swifts is designed to be incorporated into the brickwork of a new build or renovation. It will provide a nesting site for a pair of swifts whilst being a discreet addition to your building. Available in smooth red or smooth blue brick.

Please note: Each box will incur a shipping charge of £6.25+VAT for UK delivery

(Prices exclude VAT)

201574 Red Brick **\$135** **€119** **£87.50**
210159 Blue Brick **\$135** **€119** **£87.50**

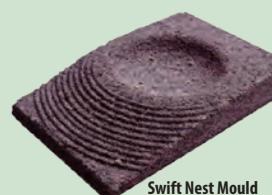
Schwegler 1MF Bat and Swift Nest Box

Material Woodcrete
1MF - W 430mm H 460mm D 225mm **kg** 24

Slope - W 430mm H 250mm D 225mm **kg** 13.5

Location Beneath eaves

Suitable for  



The 1MF contains two nesting chambers for swifts, each with its own entrance. Optional nest moulds fit inside the nest box and increase the chances of occupation. A recess in the rear panel creates a space which is ideal for bats that inhabit buildings. Using the Bat Slope, the 1MF can be built directly into the brickwork of a wall to allow access to the rear for bats.

(Prices exclude VAT)

183031 Schwegler 1MF **\$141** **€124** **£91.63**
183032 Bat Slope for 1MF **\$48** **€42** **£30.79**
189228 Swift Nest Mould **\$13** **€11** **£8.29**



BAT ROOSTS FOR TREES, HEDGEROWS & WOODLAND

Bat roosts can be sited on trees in gardens as well as in more rural locations such as in woodland and hedgerows (many will also work perfectly attached to an external wall).

Unless otherwise specified they should be installed using **aluminium tree-friendly nails** (included where specified), at least two metres above ground level and away from bright artificial light sources.

Bats – require different temperature conditions throughout the year so it is normally best to have multiple boxes facing different directions - south and west facing boxes will generally be warmer and should make good maternity roosts whereas cooler east and north facing boxes are more likely to be used during the winter months by males.



BUYERS GUIDE ▶ 2015

Chavenage Bat Box**Material** FSC Wood

W 180mm H 380mm D 100mm 1.2

Location Above 2m**Suitable for**

This natural and attractive bat box will fit into any garden, woodland or house wall site. The high quality, durable timber ensures that the box is well insulated and the narrow entrance slot provides protection from predators.

(Prices exclude VAT)

	\$	€	£
183445 Chavenage Bat Box	\$19	€17	£12.49

**Slimline FSC Bat Box****Material** FSC Wood

W 140mm H 400mm D 120mm 1.9

Location Above 2m**Suitable for**

A traditional bat box with access opening at the base and access ladder. Suitable for siting on trees and buildings, using the two pre-drilled holes (top and bottom). Inside, grooves in the wood provide a rough interior for the bats to grip easily. The front is hinged for inspection.

(Prices exclude VAT)

	\$	€	£
193090 Slimline FSC Bat Box	\$21	€19	£13.75

**NHBS Kent Bat Box****Material** Larch

W 240mm H 475mm D 170mm 3.5

Location Above 2m**Suitable for**

Based on the popular 'Kent Bat Box' design but constructed from rough sawn larch harvested from plantations on the Sharpham Estate, Totnes. Two 25mm cavities provide plenty of roost space. Self cleaning.

(Prices exclude VAT)

	\$	€	£
211419 NHBS Kent Bat Box	\$26	€23	£16.66

**Improved Cavity Bat Box****Material** FSC Plywood

W 240mm H 380mm D 150mm 1.5

Location Above 2m**Suitable for**

The Improved Cavity Bat Box is suitable for British cavity dwelling bats. An internal ceramic heat sink improves temperature stability. The overhanging apex roof offers excellent protection from UK weather.

(Prices exclude VAT)

	\$	€	£
187778 Improved Cavity Bat Box	\$36	€32	£23.29

**Double Chamber FSC Bat Box****Material** FSC Wood

W 140mm H 315mm D 180mm 2.1

Location Above 2m**Suitable for**

A traditional bat box with access slot at the base and access ladder. Removable internal dividing panel providing two chambers. Inside, grooves in the wood provide a rough interior for the bats to grip. The front is hinged for inspection.

(Prices exclude VAT)

	\$	€	£
193091 Double Chamber Bat Box	\$24	€21	£15.42

**Flatpack Double Chamber Bat Box****Material** FSC Plywood

W 160mm H 340mm D 120mm 1

Location Above 2m**Suitable for**

Enjoy building your own bat box with this easy self-assembly kit. This box has a grooved landing area for bats below the rear slot entrance with two internal chambers. Suitable for smaller British bats including pipistrelles and soprano pipistrelles. Available as either a single or 10 box kit.

(Prices exclude VAT)

	\$	€	£
187791 1 Box	\$22	€20	£14.58
187794 10 Boxes	\$206	€181	£133.33

**Double Chamber Bat Box****Material** FSC Wood

W 160mm H 313mm D 160mm 1.8

Location Above 2m**Suitable for**

This attractive wooden box has two internal chambers and is constructed from natural sustainable materials. The heavy construction provides good insulation and longevity, as well as preventing predators from chewing the entrance slot. The front door is hinged for inspection and cleaning.

(Prices exclude VAT)

	\$	€	£
183446 Double Chamber Bat Box	\$30	€26	£19.16

**Improved Crevice FSC Bat Box****Material** FSC Plywood & Ceramic

W 160mm H 330mm D 100/130mm 1.4/2

Location Above 2m**Suitable for**

The Improved Crevice Bat Box is suitable for the smaller British crevice-dwelling bats. An internal ceramic heat sink improves temperature stability in crevices. Available with a double or triple crevice.

(Prices exclude VAT)

	\$	€	£
187782 Double Crevice	\$35	€30	£22.49
187784 Triple Crevice	\$42	€37	£27.49





Schwegler 2FN Bat Box

Material Woodcrete
H 360mm Diameter 160mm **kg** 4.3

Location **I** Above 2m

Suitable for

The 2FN has two entrances - one at the front and one at the rear against the tree. It has an increased internal height relative to the 2F and its domed roof allows bats to form clusters. This design has proved highly successful with noctule and Bechstein's bats. Up to 28 noctule bats with nine young have been recorded in a 2FN.

(Prices exclude VAT)

174819 Schwegler 2FN Bat Box

\$ **€** **£**
\$49 **€43** **£31.63**



BESTSELLER

Schwegler 2F Bat Box

Material Woodcrete
H 330mm Diameter 160mm **kg** 4

Location **I** Above 2m

Suitable for

The most popular general purpose box, particularly attractive to the smaller British bats. A simple design with narrow entrance slit on the front.

The 2F with double front panel is the same shape as the 2F but has a second inner wooden panel to create a cavity wall. Ideal for bats that inhabit crevices. A replacement front panel is also available.

(Prices exclude VAT)

	\$	€	£
174814 Schwegler 2F	\$39	€34	£24.96
181809 Schwegler 2F with double front panel	\$50	€44	£32.46
196397 Replacement front panel	\$18	€16	£11.66

Schwegler 1FD Bat Box

Material Woodcrete
H 360mm Diameter 160mm **kg** 4.8

Location **I** Above 2m

Suitable for

Specifically developed for smaller bats. The 1FD features a special layout inside the domed roof, increased interior height, and two grooved internal wooden front panels with precise spacing between them. This model has proved highly effective as a nursing area. Used by common pipistrelle, Nathusius' pipistrelle, Daubenton's and brown long-eared bats.

(Prices exclude VAT)

187991 Schwegler 1FD Bat Box

\$ **€** **£**
\$73 **€64** **£47.56**



Schwegler Universal Bat Box 1FFH

Material Woodcrete
W 245mm H 875mm D 190mm **kg** 16

Location **I** Above 2m

Suitable for

The 1FFH has a high ceiling ensuring a favourable microclimate while crevices and hollows inside allow a wide range of species to roost. The rear compartment is designed for larger species and is large enough for female colonies and their young. The grooved design allows younger animals to cling safely to the wall. The narrow entrance hole provides sleeping bats with extra protection against predators and disturbances.

Please note: This box must be delivered on a pallet incurring a minimum shipping charge of £35.00+ VAT for UK delivery.

(Prices exclude VAT)

189136 Universal Bat Box 1FFH

\$ **€** **£**
\$167 **€147** **£108.29**



Schwegler 1FS Large Colony Bat Box

Material Woodcrete
H 440mm Diameter 280mm **kg** 10

Location **I** Above 2m

Suitable for

The 1FS is a large general purpose bat box that can accommodate large colonies in summer, especially of noctule, Nathusius' pipistrelle and brown long-eared bats. The 1FS includes three grooved wooden panels and a special roof panel with an insulated grill which is ideal for bats to cling to.

(Prices exclude VAT)

177100 Schwegler 1FS Large Colony Bat Box



\$ **€** **£**
\$121 **€106** **£78.29**

Schwegler 1FW Hibernation Box

Material Woodcrete
H 500mm Diameter 380mm **kg** 29

Location **I** Above 2m

Suitable for

The three internal, grooved wooden panels can be easily lifted out for inspection and cleaning and the multi-layered cavity wall provides excellent insulation. Up to 180 hibernating bats have been recorded in one box. Comes with mounting blocks for mounting on trees.

Please note: This box must be delivered on a pallet incurring a minimum shipping charge of £35.00+ VAT for UK delivery.

(Prices exclude VAT)

183835 Schwegler 1FW Hibernation Box



\$ **€** **£**
\$242 **€212** **£156.63**

BAT BOXES FOR TREES, HEDGEROWS & WOODLAND

NEW SCHWEGLER BAT ROOSTS

3FF Schwegler Bat Box

Material Woodcrete
W 270mm **H** 430mm **D** 200mm 9.5

Location Above 3m

Suitable for

The Schwegler 3FF Bat Box is spacious enough to be used as a summer roost or nursery site and is open at the bottom, allowing droppings to fall out meaning the box is self-cleaning. The front of the box can be opened for inspection and it is available with an additional inspection hatch for less disruptive inspections.

(Prices exclude VAT)

221016 3FF Schwegler Bat Box

\$ 103 € 90 £ 66.66

221017 3FF Schwegler Bat Box - with additional inspection hatch

\$ 109 € 96 £ 70.79

**2FS Schwegler Bat Colony Box**

Material Woodcrete
W 280mm **H** 440mm **D** 280mm 10.2

Location Above 2m

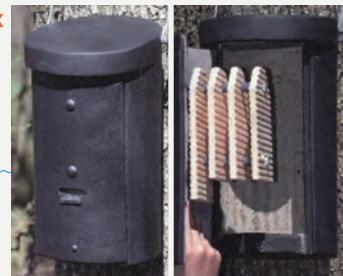
Suitable for

The 2FS Bat Colony Box is constructed from long lasting Woodcrete and is designed for smaller species of bats. The narrow entrance prevents birds, dormice, mice and larger species of bat from accessing the box. The box contains four wooden panels providing a large amount of roosting space. The front panel can be easily removed for cleaning and inspection.

(Prices exclude VAT)

221022 2FS Schwegler Bat Colony Box

\$ 134 € 118 £ 86.66

**3FS Schwegler Bat Colony Box**

Material Woodcrete
W 280mm **H** 440mm **D** 280mm 12

Location Above 2m

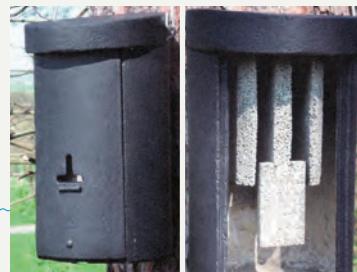
Suitable for

The 3FS Bat Colony Box is constructed from long lasting Woodcrete and is designed for smaller species of bats. The narrow entrance prevents birds, dormice, mice and larger species of bat from accessing the box. The box contains Woodcrete clinging panels which are securely integrated within the bat box. The front panel can be easily removed for cleaning and inspection.

(Prices exclude VAT)

221023 3FS Schwegler Bat Colony Box

\$ 134 € 118 £ 86.66

**3FN Schwegler Bat Box**

Material Woodcrete
W 160mm **H** 360mm **D** 160mm 4.9

Location Above 2m

Suitable for

Like the 2FN, the 3FN has two entrances, one at the back of the box next to the tree trunk and the other at the front of the box. The entrance area is stepped providing protection against small predators, draughts and bright lights. The front panel can be easily removed for inspection and cleaning.

(Prices exclude VAT)

221003 3FN Schwegler Bat Box

\$ 49 € 43 £ 31.66

**Improved Roost-Maternity Bat Box**

Material FSC Plywood & Ceramic
W 260mm **H** 490mm **D** 130mm 6.6

Location Above 2m

Suitable for

This large, three-crevice box is suitable for larger roosts or maternity groups of the small British crevice-dwelling bats - the pipistrelles and Barbastelle's. The 12mm plywood combined with the internal ceramic heat sink provides improved heat stability.

(Prices exclude VAT)

187787 Improved Roost-Maternity

\$ 109 € 96 £ 70.83

**Almodovar Wooden Bat Box**

Material Exterior Grade Plywood
W 570mm **H** 425mm **D** 130mm 5.6

Location Above 2m

Suitable for

The Almodovar Wooden Bat Box is a traditional style, double chambered bat box with an entrance and access ladder at the base of the box.

(Prices exclude VAT)

217571 Almodovar Bat Box

\$ 58 € 51 £ 37.46

**Miramare Bat Roost**

Material FSC WoodStone
W 250mm **H** 850mm **D** 250mm 22.2

Location Above 2m

Suitable for

The Miramare Bat Roost has been designed to replicate a natural roost within a hollow tree and has four internal roosting chambers. It is constructed from FSC WoodStone and require little, if any, maintenance. It can be mounted using brackets and has two additional fixing eyes for a rope or wire to be passed through to secure to a tree trunk.

Please note: Each box will incur a shipping charge of £6.25+ VAT.

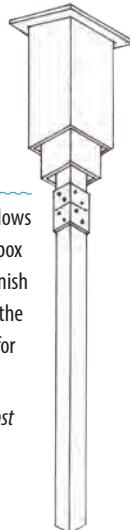
(Prices exclude VAT)

217568 Miramare Bat Roost

\$ 103 € 90 £ 66.66



BUILT TO ORDER
SEE PAGE 5

**Rocket Box**

Material Plywood
W 273mm **H** 2.8m **D** 273mm

Location Open areas

Suitable for

The double chambered rocket box provides a large roosting area for bats that allows them to select micro-climates within the roost by moving from one side of the box to another. Made from exterior plywood, can be supplied either in a standard finish or a bespoke coloured finish as required. The pole is supplied in two sections, the lower tanalised section needs to be concreted into the ground. Recommended for general mitigation purposes where a free standing bat box is required.

Please note: Supplied on a pallet in three sections. Shipping within the UK will cost £30 to £40 depending on location.

(Prices exclude VAT)

202301 Standard Finish

\$ 495 € 435 £ 320.83

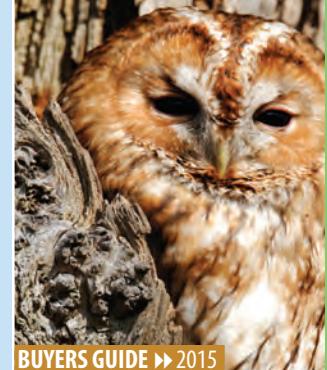
202477 Bespoke Finish

\$ 522 € 459 £ 338.33

BIRD BOXES FOR TREES, HEDGEROWS & WOODLAND

Bird boxes can be sited on trees in gardens as well as in more rural locations such as in woodland and hedgerows. Many will also work perfectly attached to an external wall; however, some of the species specific boxes, particularly those on pages 39–41 are only likely to be occupied if sited at a suitable location within a suitable habitat (see individual product descriptions for details).

Bird boxes are unlikely to be occupied unless they are sited at least 1.6m above ground level, positioned out of direct sun and facing away from the prevailing wind. Unless otherwise specified boxes attached to trees should be installed using aluminium tree-friendly nails. Ideally put your nest box up in autumn or winter to allow the birds to use it as a roost site before the nesting season.



BUYERS GUIDE ▶ 2015

Schwegler 1B Nest Box

BESTSELLER

Material Woodcrete

H 260mm **Diameter** 160mm **kg** 3.6

Location 2–4m

Suitable for

The Schwegler 1B is our bestselling nest box and appeals to a wide range of cavity-nesting species. The box can be nailed to the trunk of a tree or hung from a branch. Schwegler Woodcrete boxes have the highest occupation rates of all nest box types and are the perfect way to increase nesting opportunities for birds in your garden.

They are carefully designed to mimic natural nest sites and provide a stable environment for chick rearing and winter roosting. The Schwegler 1B should last 25 years or more without maintenance.

Available in a choice of colours with a 26mm hole (suitable for smaller tit species), 32mm hole (suitable for larger tit species and sparrows) or an oval hole (attractive to redstarts).

(Prices exclude VAT)

	\$	€	£
174761 26mm hole: Brown	\$32	€28	£20.79
174763 26mm hole: Green	\$32	€28	£20.79
174756 32mm hole: Brown	\$32	€28	£20.79
174757 32mm hole: Green	\$32	€28	£20.79
174766 Oval hole: Brown	\$32	€28	£20.79
174767 Oval hole: Green	\$32	€28	£20.79



Vivara Pro WoodStone Nest Box

Material FSC WoodStone

W 188mm **H** 250mm **D** 170mm **kg** 4.2

Location 2–4m

Suitable for



These standard WoodStone boxes are available with a 28mm hole (suitable for tree sparrows, blue tits, coal tits and great tits) or 32mm hole (suitable for the previous species and also house sparrows, pied flycatchers and nuthatches). Both sizes can be purchased in green or brown.

(Prices exclude VAT)

	\$	€	£
209809 28mm, Green	\$27	€24	£17.46
209811 28mm, Brown	\$27	€24	£17.46
209812 32mm, Green	\$27	€24	£17.46
209813 32mm, Brown	\$27	€24	£17.46

Vivara Pro Open Front WoodStone Nest Box

Material FSC WoodStone

W 175mm **H** 190mm **D** 150mm **kg** 2.9

Location Below 2m (Above 2m for flycatchers)

Suitable for



These open front boxes are suitable for robins, wrens, spotted flycatchers, pied and grey wagtails, song thrushes and black redstarts. Boxes come in either green or brown.

(Prices exclude VAT)

	\$	€	£
209818 Open front, Green	\$27	€24	£17.46
209819 Open front, Brown	\$27	€24	£17.46

BIRD BOXES FOR TREES, HEDGEROWS & WOODLAND

Schwegler Nest Box 2GR

Material Woodcrete
W 200mm **H** 310mm **D** 270mm **kg** 6.7

Location 2–4m

Suitable for

This box has been carefully designed with a large nesting area and extended entrance tunnel to provide excellent protection against predators such as cats, magpies, jays and martens. Available with an oval hole (attractive to a wide range of smaller bird species including nuthatches and great tits), or with three 27mm holes to provide extra light that encourages smaller species to build their nest at the back of the cavity.

(Prices exclude VAT)	\$	€	£
174775 Oval 30 x 45mm hole	\$39	€34	£24.96
174779 3 Hole: 27mm each	\$39	€34	£24.96



2GR Oval Hole



2GR Three Hole

Schwegler 2M Nest Box

Material Woodcrete
W 160mm **H** 350mm **D** 170mm **kg** 3.7

Location 2–4m

Suitable for

The 2M offers greater predator protection due to being hung from a branch. Available with general purpose 32mm hole, 26mm hole (for smaller tit species) and oval hole (attractive to redstarts).

(Prices exclude VAT)	\$	€	£
184941 26mm hole	\$35	€30	£22.46
184942 32mm hole	\$35	€30	£22.46
184943 Oval hole	\$35	€30	£22.46

Schwegler Treecreeper Nest Box with Predator Protection

Material Woodcrete
2B Nest Box - **W** 220mm **H** 260mm **D** 150mm **kg** 2.7
2BN Nest Box - **W** 220mm **H** 350mm **D** 100mm **kg** 1.5

Location 2–4m, On tree trunk

Suitable for

Treecreepers frequently build nests against or under the thick bark of trees such as oak, alder, poplar and pine. The 2B nestboxes are designed to be open to the tree trunk at the back and with side entrances close to the tree trunk to encourage treecreeper nesting. The 2B nest box has a removable front panel and includes a mounting block. The 2BN front is solid Woodcrete.

(Prices exclude VAT)	\$	€	£
183010 2B Nest Box	\$40	€35	£25.97
183011 2BN Nest Box	\$37	€33	£24.13



2BN

Schwegler 3S Starling Nest Box

Material Woodcrete
W 190mm **H** 280mm **D** 200mm **kg** 4.4

Location 2–4m

Suitable for

With starling numbers in steep decline, the availability of nesting sites has become vitally important. This nest box has been designed with a large, deep cavity and 45mm entrance hole to attract starlings. Made from Woodcrete to provide a durable, warm, breathable starling nest site and roosting space for lesser and great spotted woodpeckers.

(Prices exclude VAT)	\$	€	£
189128 3S Nest Box	\$39	€34	£24.96



Schwegler Nest Box 3SV with Predator Protection

Material Woodcrete
W 190mm **H** 280mm **D** 230mm **kg** 4.8

Location 2–4m

Suitable for

This box is particularly attractive to nuthatches with its extended entrance hole and is also suitable for tits, sparrows, redstarts and pied flycatchers.

The oval hole option is designed to provide extra light to the nest cavity in dark forest and the 45mm hole is suitable for starlings.

(Prices exclude VAT)

	\$	€	£
183007 3SV 34mm hole	\$41	€36	£26.63
183009 3SV 45mm hole	\$41	€36	£26.63
183008 3SV Oval hole	\$41	€36	£26.63



BESTSELLER

Schwegler 1N Deep Nest Box

Material Woodcrete
W 200mm **H** 200mm **D** 300mm **kg** 5.6

Location Below 2m (Above 2m for Flycatchers)

Suitable for

The 1N is an extra deep nest box with a wooden insert to provide excellent predator protection for robins, spotted flycatchers and pied wagtails. The two entrances provide additional light which encourages nesting right at the back of the cavity. Made from Woodcrete, this nestbox will provide a safe nesting place for decades.

(Prices exclude VAT)

	\$	€	£
174792 1N Deep	\$39	€34	£24.96



Schwegler Nuthatch Nest Box 5KL

Material Woodcrete
H 300mm **Diameter** 250mm **kg** 8.4

Location 2–4m

Suitable for

Nuthatches prefer to occupy a nest box with a large internal diameter, rather than smaller nest boxes. This large box with 32mm entrance hole has been designed specifically for this uniquely agile species. To keep nuthatches out of owl boxes, it is advisable to hang a 5KL directly adjacent to your owl box.

(Prices exclude VAT)

	\$	€	£
189130 Nuthatch Nest Box 5KL	\$60	€53	£39.13



Schwegler 1ZA Wren Roundhouse

Material Woodcrete

Diameter 185mm **kg** 2

Location Below 2m, Undergrowth

Suitable for

Wrens nest near the ground in undergrowth and construct spherical nests. The 1ZA Wren Roundhouse provides perfect wren nesting habitat in warm and durable Woodcrete, particularly useful where natural nesting opportunities are lacking. The Wren Roundhouse can be hung in undergrowth, thick cover or in hedgerows. Available in two colours either to blend in or make a focal point in your garden.

(Prices exclude VAT)

	\$	€	£
174795 Ivy Green	\$45	€40	£29.13
174799 Autumn Light Red	\$45	€40	£29.13



Stockholm Birch Log Nest Box

Material FSC Birch
W 170mm H 270mm D 205mm
Location 2–4m
Suitable for W



The Stockholm Birch Log Nest Box is a natural looking nest box constructed from FSC certified birch logs. The boxes are available with either a 28mm, 32mm or 34mm entrance hole to attract specific species.

(Prices exclude VAT)	\$	€	£
216841 28mm hole	\$10	€9	£6.66
216842 32mm hole	\$10	€9	£6.66
216843 34mm hole	\$10	€9	£6.66



Modern Nest Box



Classic Nest Box

CedarPlus Nest Boxes

Material Cedar
Modern - W 156mm H 370mm D 175mm 1.7
Classic - W 160mm H 310mm D 160mm 1.7
Location 2–4m
Suitable for

These durable nest boxes are manufactured from beautiful Canadian Cedar to be long-lasting and warm for nesting and roosting garden birds. They have an inspection door with a rust-proof catch and are available with a 26mm hole to restrict occupancy to the smaller tit species or a 32mm hole to allow any of the smaller garden bird species to nest or roost.

(Prices exclude VAT)	\$	€	£
184946 26mm hole Modern	\$30	€26	£19.13
184947 32mm hole Modern	\$30	€26	£19.13
193070 26mm hole Classic	\$42	€37	£27.46
193071 32mm hole Classic	\$42	€37	£27.46

Schwegler Nest Box Accessories

(Prices exclude VAT)	\$	€	£
184773 Heavy Duty Aluminium Nail x1	\$0	€0	£0.25
183025 Nest Box Hanging Block	\$8	€7	£4.96

**Nest Box Protection Plate**

Stamped from quality copper sheeting, this durable plate safeguards the entrance to your wooden bird box against attack from squirrels, woodpeckers and other predators who may try to gnaw or peck their way in. Fixing screws included.

(Prices exclude VAT)	\$	€	£
194192 26mm hole	\$4	€3	£2.46
194191 32mm hole	\$4	€3	£2.46

Traditional Wooden Bird Nest Box

Material FSC Wood
W 140mm H 335mm D 180mm 1.7
Location 2–4m
Suitable for



This simple breathable wooden bird box has a sloping roof and four drainage holes and is ideal for providing crucial nesting and winter roosting spaces for the smaller garden birds. The 25mm entrance hole is suitable for the smaller tit species whilst the 32mm entrance hole will attract a wide range of garden birds including great tits, house sparrows and nuthatches. The open fronted nest box will attract species such as robins, wrens, spotted flycatchers and pied wagtails. The boxes can be expected to last 5–10 years.

(Prices exclude VAT)	\$	€	£
193704 25mm hole	\$15	€14	£10.00
193705 32mm hole	\$15	€14	£10.00
216946 Open fronted	\$15	€14	£10.00



Flycatcher



Robin

CedarPlus OpenFront Wooden Box

Material Cedar
W 156mm H 318mm D 175mm 1.3
Location 2–4m (flycatcher) or below 2m (robin)
Suitable for

The CedarPlus OpenFront Wooden Box range is beautifully built and caters for open-nesting species such as robins and spotted flycatchers. There are separate models for each species, designed carefully to meet their nesting requirements. The robin box should be sited in a hedge or bush, low to the ground, and the flycatcher nest box should be sited two to four metres above the ground in a creeping plant (e.g. ivy, rose) on a wall or tree trunk.

(Prices exclude VAT)	\$	€	£
193076 Robin	\$27	€24	£17.46
193077 Flycatcher	\$27	€24	£17.46

Tree Sparrow Nest Box

Material FSC Plywood
W 130mm H 240mm D 170mm 0.8
Location 2–4m
Suitable for

With a 28mm hole, this box has been thoughtfully designed to provide the ideal nesting and roosting habitat for tree sparrows. It has good drainage and ventilation and has a side fixing system (with nylon pegs) so that several boxes can be linked together or arranged to form a nesting colony.

(Prices exclude VAT)	\$	€	£
204602 Tree Sparrow Nest Box	\$17	€15	£11.25

**FSC Small Bird Boxes**

Material FSC Plywood
W 130mm H 300mm D 150mm 0.6 (Open fronted 0.9)
Location 2–4m, below 2m (open fronted)
Suitable for

Small Bird Boxes made from FSC plywood. Available with an open front for robins, blackbirds, wagtails, flycatchers, and wrens or with a 25mm hole (smaller tits), 28mm hole (larger tits and sparrows), or 32mm hole (larger tits, sparrows, nuthatches, and pied flycatcher). All boxes have drainage holes and are coated with a non-toxic water repellent finish.

(Prices exclude VAT)	\$	€	£
179129 Open Fronted	\$19	€17	£12.46
179128 25mm hole	\$23	€20	£14.96
179127 28mm hole	\$23	€20	£14.96
179126 32mm hole	\$23	€20	£14.96

Tall Roosting Nest Pocket

Material Woven material
W 90mm H 230mm D 90mm 0.1
Location 2–4m
Suitable for

These roost pockets provide essential protection for small birds on cold nights to preserve body fat and improve survival. They come complete with fixing wire and detailed instructions and are easy to fix in hedgerows, ivy, on pergolas, fencing, walls and small trees and bushes.

(Prices exclude VAT)	\$	€	£
183436 Tall Roosting Nest Pocket	\$3	€3	£2.08



BIRD BOXES FOR TREES, HEDGEROWS & WOODLAND

CedarPlus Open Front Wren Box

Material Cedar
W 156mm H 318mm D 175mm **kg** 1.3

Location Below 2m, undergrowth
Suitable for



The CedarPlus Open Front Wren Box is beautifully built and caters for wrens which are an open-nesting species. The 19mm thick Canadian cedar provides excellent insulation and strength and the hand-screwed construction reduces the risk of warping or splitting. Supplied with aluminium fixing nail.

(Prices exclude VAT)

193075 CedarPlus Wren Box **\$27** **€24** **£17.46**

Blackbird Nest Box

Material FSC Wood
W 170mm H 230mm D 210mm **kg** 1.9

Location Below 2m
Suitable for



With its open front and larger size, this nest box has been specially designed for blackbirds, but you may find that robins and wrens are also attracted to this box. Blackbirds can have up to five successful broods in one year so don't remove any old nests until the breeding season is over (October onwards).

(Prices exclude VAT)

193079 Blackbird Nest Box **\$26** **€23** **£16.63**

Aluminium Nails



Tree friendly aluminium nails, ideal for hanging nest boxes. 3.75 x 85mm.

(Prices exclude VAT)

216838 1 Nail	\$0	€0	£0.15
216860 100 Nails	\$15	€14	£10.00
216859 500 Nails	\$58	€51	£37.50

Long-Eared Owl and Hobby Nesting Basket

Material Willow
H 150mm Diameter 460mm **kg** 0.6

Location Treetop (hobbies), Hedgerow (owls)
Suitable for



These attractive woven baskets mimic old nests, which are the preferred nesting sites of long-eared owls and hobbies. They are made from willow and can be placed either in a hedgerow or tree. For long-eared owls the basket should be sited in the lower half of a tree in woodland, or in a dense hedgerow near to coarse grassland with tussocks. For hobbies it should be sited near the top of a tree near the edge of a woodland, overlooking farmland or wetland.

(Prices exclude VAT)

210781 Owl and Hobby Basket **\$26** **€23** **£16.66**

Robin and Wren FSC Nest Box

Material FSC Wood
W 215mm H 255mm D 145mm **kg** 1

Location Below 2m, undergrowth
Suitable for

This attractive, flat based open nest box has been designed for robins and wrens, who prefer a small open-fronted box. Site the box below 2m in an area well hidden with vegetation. It can be attached to a tree or wall (fixings not included).

(Prices exclude VAT)

193088 Robin and Wren Nest Box **\$17** **€15** **£10.79**

FSC Large Bird Boxes

Material FSC Plywood
45mm - W 160mm H 510mm D 180mm **kg** 1.4

Open - W 210mm H 520mm D 190mm **kg** 3

Location 3-4m

Suitable for

Large nesting boxes available with a 45mm diameter hole for woodpeckers and starlings or with an open front for owls, jackdaws, thrushes, and kestrels. Both boxes have a hinged roof, drainage holes, and are coated with a non-toxic water repellent finish.

(Prices exclude VAT)

179138 45mm hole **\$29** **€25** **£18.75**179130 Open Fronted **\$41** **€36** **£26.63**

Schwegler Kestrel Nest Box 28

Material Woodcrete
W 330mm H 360mm D 450mm **kg** 13.5

Location Above 6m

Suitable for

This large Woodcrete nest box has a perch to attract kestrels. Best sited in single trees, in barns or at the edge of quiet woods at a height of six metres or above. If used in towns place on larger buildings, chimneys or towers.

(Prices exclude VAT)

183028 Nest Box 28 **\$148** **€130** **£95.79**

Treecreeper Nest Box

Material FSC Wood
W 130mm H 350mm D 125mm **kg** 0.9

Location 2-4m
Suitable for

Treecreepers like to nest in narrow gaps or clefts such as behind the bark in mature trees. The shape of this box is specially designed to be suitable for treecreepers, fitting snugly against a tree trunk with an entrance right next to the bark. It should be fixed with a nail (not included) to a mature tree out of exposed sunlight and prevailing winds.

(Prices exclude VAT)

209579 Treecreeper Nest Box **\$19** **€17** **£12.46**

Jackdaw, Stock Dove & Tawny Owl Nest Box

Material Plywood
W 370mm H 555mm D 440mm **kg** 8

Location Above 3m

Suitable for

Stock doves and jackdaws, along with tawny owls, generally nest in tree cavities or buildings. As such sites are becoming increasingly rare, providing an artificial nesting site can be hugely beneficial for these species. A layer of loose dry material such as wood shavings or bark can be added to the nest box in December or January. The front of the box is hinged allowing it to be cleaned easily.

(Prices exclude VAT)

209235 Jackdaw and Stock Dove **\$96** **€85** **£62.50**

Kestrel Open Nest Box

Material Plywood
W 450mm H 340mm D 400mm **kg** 10.3

Location Above 5m

Suitable for

The Kestrel Open Nest Box is constructed from exterior grade plywood and has a felt covered roof. It has a large opening which is ideal for kestrels and should be sited at least 5m above the ground with a good view point. The box has a wooden bracket to allow it to be fixed to a tree or post.

(Prices exclude VAT)

218279 Kestrel Open Nest Box **\$90** **€79** **£58.29**

Eco Barn Owl Nest Box**Material** Recycled PlasticW 660mm H 670mm D 530mm **kg** 9.5**Location** 6–8m**Suitable for** inside barns

The Eco Barn Owl Nest Box is made almost entirely from recycled plastic, with the exception of the FSC chipboard floor. It is suitable for use both inside buildings and outside. This nest box is extremely robust, requiring virtually no maintenance and has a long life expectancy. The chipboard floor is intended to absorb moisture and should be replaced every few years. The box is secured using a separate fixing bracket which can be fitted to a tree or wall with screws or straps.

(Prices exclude VAT)

216867 Eco Barn Owl Nest Box

\$ 161 € 141 £ 104.17

218146 Replacement Floor for the Eco Barn Owl Nest Box

\$ 7 € 6 £ 4.58

**Schwegler Barn Owl Nest Box 23****Material** ChipboardW 1m H 500mm D 500mm **kg** 25.5**Location** 6–8m**Suitable for** inside barns or towers

Barn owl numbers are in decline and lack of nesting sites is one of the primary causes. This box is designed to be sited on the interior wall of barns or church towers, ideal barn owl nesting sites. Barn owls only need a small opening on the outside of the building to serve as an entrance. Made from water-resistant, formaldehyde-free chipboard with an inspection hatch.

Please note: This box must be delivered on a pallet incurring a minimum shipping charge of £35.00+ VAT for UK delivery.

(Prices exclude VAT)

183027 Barn Owl Nest Box 23

\$ 167 € 147 £ 108.29

**Little Owl Nest Box****Material** PlywoodW 290mm H 290mm D 1m **kg** 12**Location** Above 3m**Suitable for**

This plywood box has a bitumen covered lid for added protection. The 7cm hole is the ideal size for this species but is small enough to prevent access by tawny owls. It has a separate nesting area at the rear of the box which is beneficial for little owls, who prefer to nest in dark cavities. This box should be sited on a horizontal branch.

(Prices exclude VAT)

210776 Little Owl Nest Box

\$ 174 € 153 £ 112.50

Material WoodcreteH 440mm Diameter 250mm **kg** 9.2**Location** 4–6m**Suitable for**

This is suitable for tawny owls, stock doves, jackdaws and in suitable areas goldeneye and goosander. It is best hung four to six metres above the ground in quiet wooded areas. To prevent occupation by nuthatches, hang a Schwegler 5KL box nearby.

(Prices exclude VAT)

179006 No 5 Owl Box

Barn Owl Nest Box**BESTSELLER****Material** FSC PlywoodW 590mm H 740mm D 500mm **kg** 8**Location** 6–8m, inside barns**Suitable for**

The Barn Owl Nest Box has been designed in collaboration with the Barn Owl Trust and is suitable for use both inside buildings or outside. The box has a sturdy front platform for young owls to exercise on. There is a double inspection hatch allowing access to the whole floor area and designed to prevent rain coming in. The specially drilled backplate provides fixings above and below the nest box to ensure it is securely fixed and there are oversized holes to accommodate ropes for hauling the nest box into place.

(Prices exclude VAT)

216673 Barn Owl Nest Box

\$ 123 € 108 £ 80.00

**FSC Plywood Barn Owl Nest Box****Material** FSC PlywoodBox - W 890mm H 775mm D 440mm **kg** 11

Tray - W 150mm H 460mm D 345mm

Location 6–8m**Suitable for**

This Barn Owl Box is constructed from FSC Plywood. It has a large exercise platform with a lip which is vital for emerging chicks in the spring as it will be used as a place to stand and rest in the early stages of the fledging process.

The box should be installed on a tree in open farmland, on an isolated hedgerow or in the edge of woodland. The box is more likely to be occupied if the entrance hole is clearly visible.

(Prices exclude VAT)

209998 Barn Owl Nest Box

\$ 208 € 183 £ 135.00

**Schwegler No 5 Owl Box****Ornithology Books.**

See page 78



P78 >

Tawny Owl Nest Box**Material** FSC PlywoodW 20mm H 760mm D 200mm **kg** 4.9**Location** Above 4m**Suitable for**

The Tawny Owl Nest Box is constructed from exterior grade plywood and is designed to be fixed to the underside of a branch at an angle of approximately 45°. The box should be hung around 4m above the ground but in more remote locations 3m may be sufficient.



(Prices exclude VAT)

210770 Tawny Owl Nest Box

\$ 55 € 49 £ 35.79

\$ 81 € 71 £ 52.46

MAMMAL BOXES

Red squirrel and **dormouse** boxes are only recommended for use in sites where the presence of red squirrels or hazel dormice has been confirmed. Red squirrels can thrive in both broadleaved and coniferous woodland although the introduced grey squirrel has now driven them out of most broadleaved woodland in lowland Britain. Hazel dormice were also more common in the past but the loss of suitable habitat including appropriately managed woodland and hedgerows has negatively affected their numbers (see page 107 for further information about dormouse survey).



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**Dormouse Box****Material** FSC Wood**Standard** - W 137mm H 225mm D 185mm **kg** 1.6**Heavy Duty** - W 180mm H 200mm D 185mm **kg** 2.6**Location** 1.5m, Hedgerows and woodland edges**Suitable for**

Nest boxes for dormice are important for monitoring, habitat enhancement and re-introduction schemes. These nest boxes are available in solidly-built FSC softwood or FSC heavy duty marine plywood and have removable lids. Dormouse boxes should only be used if there is evidence that there are dormice in the area. Site boxes well away from public areas, near a routeway such as honeysuckle or leaning branches. Fix approximately 1.5m above ground, on trees with the hole facing inwards, using wire loops.

(Prices exclude VAT)

	\$	€	£
193083 Standard Dormouse Box	\$16	€14	£10.42
193086 FSC Heavy Duty Dormouse Box	\$22	€19	£14.16

Timber Dormouse Nesting Box**Material** FSC Wood**W** 130mm **H** 180mm **D** 140mm **kg** 1**Location** 1.5m, Hedgerows and woodland edges**Suitable for**

The Timber Dormouse Nesting Box is constructed from FSC certified timber and is designed to be fitted with the entrance facing the trunk, to prevent birds from occupying the box. A fixing bracket is located at the top of the box for siting.


\$
€
£

217284 Timber Dormouse Nesting Box

\$18 €16 £11.66

Red Squirrel House**Material** Plywood**W** 375mm **H** 440mm **D** 390mm **kg** 7.8**Location** 3–4 metres**Suitable for** 

Providing a nest box can be extremely helpful to this species and will provide a warm place for them to raise their young whilst also providing protection from predation. Squirrels may also use boxes in the winter to keep warm. This Red Squirrel House has been designed with a wide entrance hole that will allow squirrels to take their young into the house easily. A platform runs around the sides of the house which makes entering and exiting easier, particularly for juveniles.

(Prices exclude VAT)

	\$	€	£
210782 Red Squirrel House	\$84	€73	£54.17

**Hogitat Hedgehog Home****Material** Steel frame/ natural material outer**W** 430mm **H** 250mm **D** 500mm **kg** 1.4**Location** Ground**Suitable for**

The Hogitat Hedgehog Home is an attractive and safe retreat for hedgehogs suitable for any garden.

It features a sturdy, rust-proofed steel frame, a waterproofed felt roof with a natural brushwood finish, and a predator defence tunnel. Cover with leaves in the autumn for additional warmth.

(Prices exclude VAT)

	\$	€	£
191397 Hogitat	\$24	€21	£15.79

Igloo Hedgehog Home**Material** Steel frame / natural material outer**W** 590mm **H** 220mm **D** 530mm **kg** 1.5**Location** Ground**Suitable for**

The Igloo Hedgehog Home is designed to provide a safe retreat for hedgehogs, constructed from a sturdy steel frame with a water proof roof. The Igloo is spacious enough for a family of hedgehogs and may be used during hibernation if covered with additional garden waste.

(Prices exclude VAT)

	\$	€	£
216719 Igloo Hedgehog Home	\$23	€20	£14.96

Hedgehog Nest Box**Material** FSC Plywood**W** 380mm **H** 220mm **D** 470mm **kg** 6.2**Location** Ground**Suitable for**

Designed by the Hedgehog Preservation Society and approved by hedgehog expert Dr Pat Morris.

It has a safe nesting area away from the extended tunnel entrance, a low roof to allow hedgehogs to create a snug nest and ventilation and drainage holes to provide the ideal humidity and temperature levels.

(Prices exclude VAT)

	\$	€	£
179141 Hedgehog Nest Box	\$57	€50	£36.66

Collins Complete Guide to Garden Wildlife

Paul Sterry (2010)

An essential photographic guide to the plants and animals in your garden. With information on birds, mammals, insects, spiders, trees, wild flowers, fungi and pond life, the detailed descriptions and beautiful photographs will allow you to identify species quickly and easily.

185040 PBK \$26 €23 £16.99

**Wildlife of a Garden: A Thirty-year Study**

Jennifer Owen (2010)

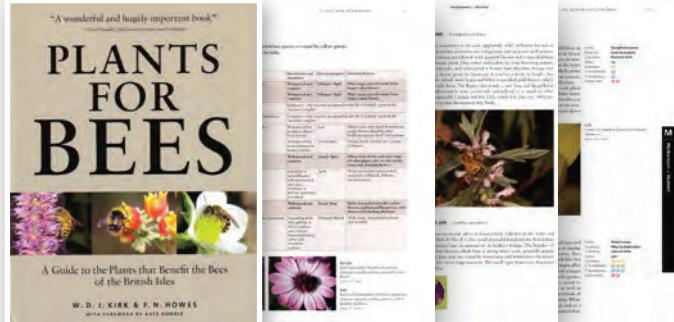


For thirty years, Jennifer Owen recorded all the wildlife in her Leicester garden, monitoring 2673 species of plants and animals. In this book she discusses diversity, abundance, seasonality and fluctuations, relating these to weather, surrounding land use and other ecological factors.

188696 HBK \$46 €41 £29.99

Plants for Bees: A Guide to the Plants that Benefit the Bees of the British Isles

WJD Kirk and FN Howes (2012)



This book explains the importance of planting flowers for both long- and short-tongued bee species. A simple key system allows gardeners to choose between more than 300 plants and the information is punctuated by stunning photography.

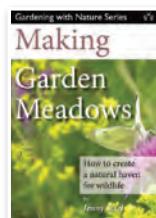
199007 HBK \$39 €34 £24.99

Making Garden Meadows

Jenny Steel (2013)

A native wildflower meadow is a delight and can attract a huge variety of wildlife. This book will instruct you how to create a wildflower meadow area in your garden and how to look after it to ensure its continued beauty through many years.

212003 PBK \$14 €12 £8.99

**The BTO Nestbox Guide**

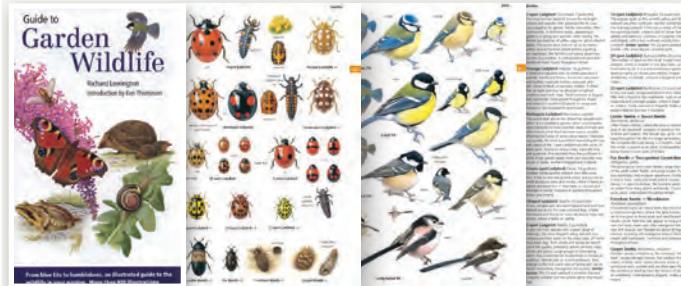
Chris du Feu (2003)

Whether you want to build your own nestboxes or buy them ready made, the BTO Nestbox Guide will give you instructions and guidance on the types preferred by the 24 species most likely to nest in and around your house and garden.

145109 PBK \$11 €10 £7.19

Guide to Garden Wildlife

Richard Lewington and Ken Thompson (2008)



The Guide to Garden Wildlife provides an extensive introduction to the ecology of the garden and the incredible array of animals that can be found there. Includes more than 900 colour illustrations and photographs of over 500 species as well as information on behaviour and life history. From blue tits to bumblebees and hedgehogs to hawkmoths, this guide has got it covered. The easy-to-use format shows artwork plates opposite text descriptions and lots of DIY projects are provided, with practical information on creating a pond for wildlife, making nest boxes and feeding birds.

174024 PBK \$20 €18 £12.95

RHS Nature's Gardener: How to Garden in the 21st Century

Matthew Wilson (2011)

The RHS Nature's Gardener considers how we should garden today and what the garden means in a changing environment. It covers sustainability and soil management as well as plant choice and structural design. Includes a year-round gardening chart and comprehensive glossary.

192911 PBK \$21 €18 £13.49

**RSPB Gardening for Wildlife: A Complete Guide to Nature-friendly Gardening**

Adrian Thomas (2010)

This complete guide provides information on garden wildlife species and habitat creation and includes a catalogue of over 300 of the best garden flower, shrubs and trees for wildlife. If you love wildlife and want to encourage more, this book is for you.

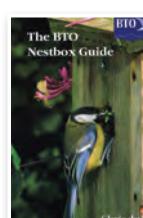
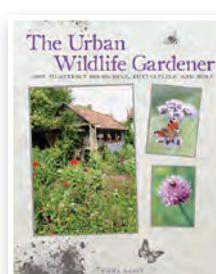
181775 HBK \$31 €27 £19.99

**The Urban Wildlife Gardener: How to Attract Birds, Bees, Butterflies and More**

Emma Hardy (2015)

Packed with planting ideas and simple gardening techniques, this guide for urban gardeners will show you how to attract birds, insects, mammals and amphibians to your outside space. No matter what size your plot - from a single window box to a full-sized garden - this book will provide you with hundreds of simple projects and essential know-how.

219579 HBK \$23 €20 £14.99

**The Wildlife Pond Handbook**

Louise Bardsley (2013)

This handbook offers clear step-by-step instructions on how to plan, design, site and build small and large ponds for wildlife. Illustrated with stunning photographs, it advises how to maintain your pond through the seasons and how to encourage a variety of plants and animals.

197517 PBK \$15 €14 £9.99



INSECT BOXES

Insect boxes - should be sited in a warm position near a nectar source and in a place where they will catch the morning sun. Most will do best if hung in a sunny corner, near foliage, at a height of 1–2m from the ground. If after 24 months the product has not been used, it may be worth choosing an alternative location and/or look to see what improvements you can make to provide a suitable environment for your target species (for example by adding nectar plants and other food plants, woodpiles, ponds and other habitat features).

Bumblebee boxes - should be sited on the ground, or in a hedge or low wall in a sheltered south facing position, out of direct sunlight and near flowers as a food source.



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Red Mason Bee Nest Box

Material Plastic
W 110mm H 100mm D 190mm **kg** 0.25

Location Below 2m

Suitable for

The Red Mason Bee Nest Box provides an excellent nesting site for solitary bees and is provided with 29 individual nesting tubes.

(Prices exclude VAT) \$13 €11 £8.29



Insect Tower

Material
W 210mm H 650mm D 125mm **kg** 3
Location Below 2m
Suitable for

The Insect Tower has a range of different habitats including bamboo tubes, pine cones and other refuge holes. It is designed to provide a habitat for a variety of insects including solitary bees, butterflies, ladybirds and lacewings.

(Prices exclude VAT) \$32 €28 £20.79



Bee Nesting Tubes

Material Bamboo
W 5 - 12mm H 5 - 12mm D 150mm **kg** 0.34

Location Below 2m

Suitable for

Bee Nesting Tubes can be used to replace tubes in an existing bee box or to make your own solitary bee nest box. These have been drilled to suit solitary bees such as red mason bees as well as providing a refuge for other overwintering insects, each pack contains 50 tubes of various diameters.

(Prices exclude VAT) \$12 €10 £7.49

WoodStone Insect Block

Material FSC WoodStone
W 90mm H 180mm D 260mm **kg** 2.8

Location Below 2m

Suitable for

The WoodStone Insect Block contains bamboo canes and provides a valuable habitat for a range of insects including solitary bees, lacewings and ladybirds.

(Prices exclude VAT) \$32 €28 £20.79



Big Insect Biome

Material FSC Wood
W 270mm H 650mm D 155mm **kg** 3

Location Ground Level

Suitable for

The Big Insect Biome has a range of features designed to attract a wide variety of insects including nesting tubes for solitary bees and a nectar feeding station for butterflies. A perspex viewing area allows over-wintering insects to be observed.

(Prices exclude VAT) \$59 €52 £38.33



Pollinating Bee Log

Material FSC Wood
W 160mm H 160mm D 160mm **kg** 1.5

Location 1–2m

Suitable for

The Pollinating Bee Log is made from solid FSC timber which provides good insulation during the winter. It is filled with natural cane nesting tubes for solitary bees and can be hung on a wall or trees using the strengthened seagrass hanging rope.

(Prices exclude VAT) \$16 €14 £10.42



Conservation Solitary Beehive

Material FSC Wood
W 520mm H 275mm D 260mm **kg** 4.25

Location Below 2m

Suitable for

This is a high quality, solitary beehive suitable for conservation and mitigation projects, fruit growers, landscapers and private gardeners. The hive incorporates three different nesting systems. The stackable trays on either side have retractable threaded screws allowing for inspection. The drilled block is designed to provide maximum insulation for larvae and nesting tubes are provided by 8mm cardboard tubes which can be replaced to prevent parasite build up. A hinged woodpecker guard on the front of the hive helps keep larvae out of reach of predators.

(Prices exclude VAT) \$219 €192 £141.66



Bee Hut

Material FSC Plywood and Canes
W 120mm H 240mm D 130mm **kg 0.9**

Location Below 2m

Suitable for

The Bee Hut provides lots of nooks and crannies in which bees and other insects can nest.

(Prices exclude VAT) **\$ 28 € 25 £ 18.29**



Bumblebee or Small Mammal Nest Box

Material FSC Wood and Recycled Plastic
W 320mm H 145mm D 240mm **kg 1.6**

Location Ground Level

Suitable for

Attractive and easy to locate in the garden, the overhanging roof opens allowing for the nest to be examined. The box is provided with nesting material and is painted to attract queen bumblebees. The box is designed to attract small mammals in the first instance as bumblebees often colonise disused mammal nests.

(Prices exclude VAT) **\$ 33 € 29 £ 21.66**

Schwegler Insect Nesting Aid, Reed

Material Woodcrete and Reed
W 225mm H 290mm D 205mm **kg 5**

Location Below 2m

Suitable for

This Nesting Aid is suitable for Hymenoptera such as wild bees, sand wasps and common wasps who use existing holes to construct their brood cells. Because they regulate the numbers of insects pests, Hymenoptera are of major ecological and agricultural importance.



(Prices exclude VAT) **\$ 44 € 38 £ 28.29**

Bug Box

Material FSC Wood and Canes
W 220mm H 155mm D 90mm **kg 0.8**

Location Below 2m

Suitable for

This small and attractive insect habitat is double chambered and is ideal for solitary bees, over-wintering ladybirds and lacewings.

(Prices exclude VAT) **\$ 13 € 11 £ 8.32**



Solitary Beehive

Material FSC Wood
W 160mm H 180mm D 170mm **kg 1.6**

Location Below 2m

Suitable for

Manufactured from durable FSC timber to provide valuable habitat for the bees in your garden. Designed to attract non-swarming bees like the red mason bee and leafcutter bee which are attracted to holes in wood. Great for education, the beehive can be easily dismantled to see the formation of small egg cells.



(Prices exclude VAT) **\$ 24 € 21 £ 15.79**

Schwegler Clay and Reed Insect Nest

Material Woodcrete, Clay and Reed
W 225mm H 290mm D 205mm **kg 5.7**

Location Below 2m

Suitable for

An attractive insect nest which can be hung in any sunny, sheltered spot. Reeds on either side of a clay central section provide a range of environments to suit different insects.



(Prices exclude VAT) **\$ 50 € 44 £ 32.46**

Bee and Bug Biome

Material FSC Wood and Canes
W 180mm H 250mm D 130mm **kg 1**

Location Below 2m

Suitable for

The mix of bamboo tubes, feeding hole, and pine cones in the Bee and Bug Biome will provide habitat for solitary bees, ladybirds, earwigs and lacewings.

(Prices exclude VAT) **\$ 24 € 21 £ 15.79**



Bumblebee Box

Material FSC Plywood
W 250mm H 170mm D 330mm **kg 2.4**

Location Ground level

Suitable for

Bumblebees are good pollinators and a bumblebee box placed in your garden may attract a queen bee in the spring. Sturdy box with transparent lid for viewing.

(Prices exclude VAT) **\$ 54 € 47 £ 34.99**

Butterfly and Insect Hibernation Box

Material Wood
W 195mm H 290mm D 170mm **kg 1.4**

Location Below 2m

Suitable for

This hibernation box provides butterflies and other insects with a safe and protected place to spend winter. The slots allow for easy access and provide sufficient air flow. Fixing screw and wallplug included.



(Prices exclude VAT) **\$ 19 € 17 £ 12.46**

BIRD TABLES & FEEDERS

WHAT AND WHEN TO FEED YOUR BIRDS

Feeding the birds in your garden, particularly in the winter, can make a huge difference to their survival. During cold winter months birds require high fat foods such as peanuts and fatballs, provided regularly. These foods will enable them to maintain their body fat reserves and keep warm. In the summer months, food shortages may still occur, so feeding less regularly is still recommended. At this time of year, high protein foods such as seeds or mealworm will be beneficial, especially while birds are moulting.

Keeping your feeders hygienic is very important and you should avoid letting old food sit around for long periods where it will become mouldy and/or attract rats. Clean and wash your feeders regularly (see the Wildkleen Sanitiser below) and remember to wash your hands when you have finishing handling them.



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Droll Yankees Lifetime Seed Feeder

Durable feeders made from chip- and fade-proof plastic and die cast aluminium with a lifetime guarantee. The seeds flow easily over patented seed baffles and birds can perch on the easy-fit perch rings. They can be hung or mounted on a Garden Pole. They are easy to clean and a seed tray can be added to the threaded base to keep the feeder area clean.

Available as a standard seed feeder or as a niger seed feeder for finches. Choose from three sizes with green rust-proof metal fittings.



Seed Feeders

	\$	€	£
176810 Small - 2 port, 0.5L	\$19	€17	£12.46
176811 Medium - 4 port, 1L	\$24	€21	£15.79
176812 Large - 6 port, 1.5L	\$31	€27	£19.96

Niger Seed Feeders

	\$	€	£
197047 Small - 4 port, 0.4L	\$19	€17	£12.46
190549 Medium - 6 port, 0.9L	\$24	€21	£15.79
197098 Large - 8 port, 1.3L	\$31	€27	£19.96

Defender Metal Seed Feeder

The Defender Metal Feeder is a tough, long feeder that offers great protection from squirrel damage. The feeding tube is made from UV stabilised polycarbonate and the base and hanger are made from corrosion resistant metal alloy. The feeder is available with two or four feeding ports, with perching rings.



	\$	€	£
216856 Two Port Feeder	\$15	€14	£9.96
216997 Four Port Feeder	\$21	€18	£13.29

Challenger Plastic Niger Seed Feeder

Plastic feeder specifically designed to be used with niger seed. Specially designed feeding ports have a smaller gauge than regular feeders to minimise spillage. Available with either four or six feeding ports, each with a perching ring, which enables birds to feed in a natural, forward facing position. Due to its design only small finches, such as goldfinch and redpoll, are able to use this feeder.



	\$	€	£
216850 Four Port Feeder	\$13	€11	£8.29
216851 Six Port Feeder	\$17	€15	£10.79

Droll Yankees Bird Lovers Seed Feeder

Feeders with high quality Droll Yankees design at an affordable price, perfect for young birders or as a first time buy. They can be hung or mounted on a Garden Pole and have a free-flowing port design and threaded base to attach a seed tray. Choose from three sizes. A suet ball feeder is also available.

	\$	€	£
176816 Small - 2 port, 0.5L	\$9	€8	£5.79
176817 Medium - 4 port, 1L	\$12	€10	£7.49
176818 Large - 6 port, 1.5L	\$14	€12	£9.16

Droll Yankees Bird Lovers Finch Feeder For Niger Seeds

This seed feeder is designed for use with niger seed and is ideal for attracting small finches such as goldfinches, siskins and redpolls. The tube is manufactured from high quality polycarbonate and the fittings are manufactured from metal and tough plastic. This feeder is available in three sizes.

	\$	€	£
208275 Four Perch	\$8	€7	£5.42
208276 Six Perch	\$11	€10	£7.08
208277 Eight Perch	\$13	€11	£8.29

Discovery Plastic Window Seed Feeder

This plastic window feeder is ideal for those with small gardens or balconies. This seed feeder has two feeding ports with ring perches to allow the birds to feed facing forward. The high-suction pads ensure the feeder is securely fixed to the window.

(Prices exclude VAT)

216852 Window Seed Feeder	\$6	€5	£3.75
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Guardian Seed Feeder Pack

These Guardian Seed Feeder Packs include a plastic feeder and a tough exterior cage designed to keep out larger birds and squirrels. The feeder is available with two, four or six feeding ports and can be dismantled for cleaning.

(Prices exclude VAT)

216847 Two Port Feeder	\$37	€33	£24.16
216848 Four Port Feeder	\$45	€40	£29.16
216849 Six Port Feeder	\$49	€43	£31.66



Observer Window Feeder

This high quality polycarbonate window feeder gives a fantastic view of birds, perfect for children. It has three suction cups to hold it firmly in place, and a roof to keep the food dry.

(Prices exclude VAT)

176821 Window Feeder	\$14	€12	£9.13
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Wildkleen Sanitiser Spray

Keeping your feeders and bird tables clean is very important. It is recommended that you wash them regularly and avoid letting old food build up. Wildkleen is an environmentally friendly sanitising spray packaged in a tough aluminium spray dispenser. The concentrated formula is tough on germs but safe to wildlife, humans and the environment. Wildkleen is suitable for disinfecting bird tables and feeders, nest boxes and survey equipment. Sold in a 200ml spray bottle.

(Prices exclude VAT)

216772 Wildkleen Sanitiser Spray	\$5	€4	£3.29
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Bird Bath /Water Bowl

Beautiful frost-resistant glazed ceramic bird bath with ripple effect to aid birds' footing and William Blake quotation around rim. The sturdy bowl comes with feet or a stand (available separately).

	\$	€	£
195520 Ceramic Bowl and Feet	\$26	€23	£16.66
195522 Bespoke Stand	\$27	€24	£17.66

**Pole Mounted Bird Table**

This Pole Mounted Bird Table can be used to feed a variety of seeds to birds in your garden. The high sides prevent food from being blown away and the mesh base drains excess water. A three piece sectional pole is provided with this table allowing it to be easily sited within the garden.

	\$	€	£
216853 Pole Mounted Bird Table	\$42	€37	£27.46

Ground Bird Table

This bird table provides a raised feeding area and can easily be moved around the garden. The stainless steel mesh bottom allows water to drain through preventing food from becoming damp.

	\$	€	£
216855 Ground Bird Table	\$23	€20	£14.99

Hanging Bird Table

This bird table is ideal for gardens with limited space and keeping food out of the reach of pets. The raised edges prevent food from being blown away in strong winds and the mesh bottom ensures water drains away.

	\$	€	£
216854 Hanging Bird Table	\$26	€23	£16.66

Hanging Bird Bath

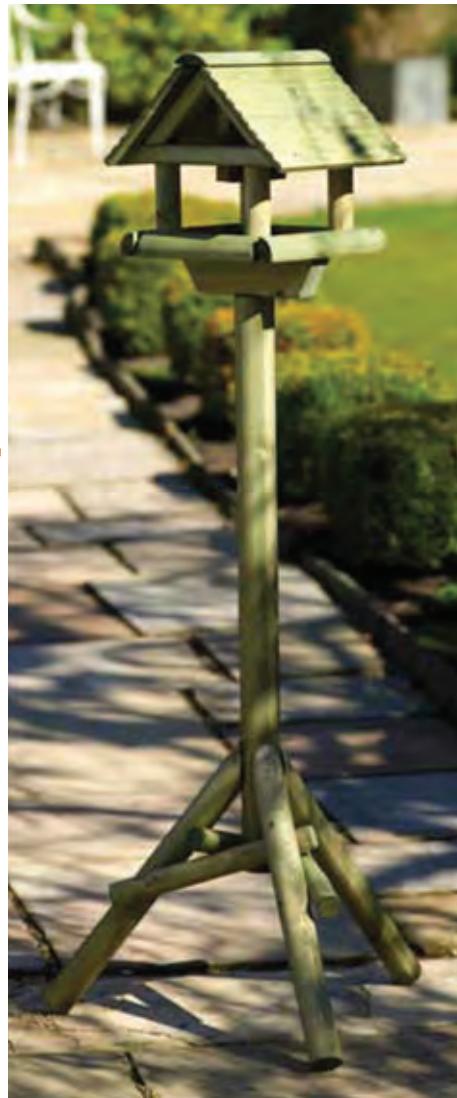
This bird bath is made from frost-resistant glazed ceramic and supplied with hanging chains. It provides garden birds with a source of fresh water and has a shallow end for smaller species and fledglings.

	\$	€	£
217281 Hanging Bird Bath	\$17	€15	£10.79

Wooden Bird Feeding Table

This bird table is a valuable resource for birds such as robins, dunnocks and chaffinches that prefer feeding on flat surfaces rather than on hanging feeders. It is manufactured in the UK from high quality FSC timber and stained a sage green using water-based wood stain. It has an integrated peanut feeder in the centre and a solid feeding table surface. Supplied flat packed.

	\$	€	£
204719 Bird Feeding Table	\$107	€94	£69.16

**Droll Yankees 4 port feeder****Garden Pole Bird Feeder Systems**

	\$	€	£
176826 Garden Pole Green	\$15	€14	£9.96
197105 Garden Pole Black	\$14	€12	£9.13
197107 Garden Pole Ext Green	\$6	€6	£4.13
197108 Garden Pole Ext Black	\$5	€4	£3.29
176827 Ground Socket	\$8	€7	£4.96
197113 Giant Seed Tray	\$33	€29	£21.63
197115 Squirrel Dome	\$33	€29	£21.63
176828 Wraparound Hooks - Med	\$6	€6	£4.16
176829 Wraparound Hooks - Large	\$8	€7	£4.99

Ground Bird Feeder Guardian

The Ground Bird Feeder Guard is the ideal way to protect ground bird tables from unwanted visitors such as squirrels, cats and larger birds. The guard is made from powder coated mild steel and is easily assembled using plastic clips. The top of the guard opens allowing the feeder to be refilled and four pegs are supplied to keep the guard in place. The mesh is available in two sizes: the small mesh (3 x 7cm) limits the feeder to small garden birds whilst the large mesh (6 x 6.5cm) allows larger birds, such as blackbirds, to use the feeder.

	\$	€	£
219719 Small Mesh (3 x 7cm)	\$37	€33	£24.16
219720 Large Mesh (6 x 6.5cm)	\$32	€28	£20.79

NEST BOX & FEEDER KITS ►►**BINOCULARS ►►****TRAIL CAMERAS ►►**

NIGHT VISION



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INTRODUCTION TO NIGHT VISION

Night vision scopes work by collecting available light and amplifying this, via an image intensifier, to generate an image which is visible to the human eye.

Night vision equipment is often categorised into 'Generations'. These correspond to U.S. military specifications defining components, performance and quality parameters. Generation One models are the most common and economical on the market and are suitable for use on clear nights or when near artificial light sources. They usually have a maximum range of around 80 to 90 metres and some distortion may appear around the edges of the image. Generation Two scopes have an additional microchannel plate which means that they are more effective in low-ambient light environments and have a maximum range of 600 metres and little or no edge distortion.

Night vision scopes are available as monoculars, binoculars and goggles. Monoculars are useful as they allow the user to retain night vision in one eye, and they tend to be cheaper and lighter than binocular versions. They can result in eye strain, however, if used for an extended period of time. Binoculars, conversely, reduce the risk of eye strain, but do not allow for the preservation of night vision in either eye. Night vision goggles are the best option when moving around or for continuous use as they leave your hands free and generally have only 1x magnification which means that depth perception is unaffected.



Newton NV Night Vision Monocular

- Ergonomically designed and lightweight
- Built-in IR illuminator
- Available with 2x, 3x or 4x magnification

Newton NV monoculars are an affordable range of generation one night vision devices. They are small and light and simple to use. The ergonomically designed shell is made from robust ABS plastic and has partial rubber armoured for a secure grip and protection from bumps. The focusable objective lenses maximise light transmission and help the image intensifier tube to amplify as much of the available light as possible. A built-in IR illuminator helps to improve performance in very low light conditions. Operational status LEDs show you immediately when the device is switched on: green for the image intensifier tube and red for the IR illuminator. A secure detachable wrist strap and soft carry case are also supplied. Available with 2x, 3x or 4x magnification which have 24mm, 42mm and 50mm lens diameters respectively.

(Prices exclude VAT)

	\$	€	£
220171 NV 2x24	\$206	€181	£133.29
220172 NV 3x42	\$219	€192	£141.63
220173 NV 4x50	\$231	€203	£149.96



Yukon Stringer Night Vision Monocular

- Record night vision images onto an SD card
- In-built eye-safe IR illuminator
- Compact and lightweight

The Yukon Stringer Night Vision Monocular is an affordable night vision solution with the ability to record video on to an SD memory card (max 32GB, 2GB card included) or directly onto a PC or laptop with 800 x 600 pixel resolution. It has a built-in infrared illuminator featuring a Class 1 Laser Safety compliant laser diode which provides good visibility even in the darkest conditions. The Stringer 5x50 model offers high power 5x magnification and a large 50mm diameter objective lens to improve clarity in low light. The Stringer 3.5x42 has 3.5x magnification and a 42mm lens diameter. Both models have three easy to use buttons (power, IR illuminator, start recording) making them simple to use. Powered by 2 x AA batteries (not included). Supplied with carrying case, wrist strap, 4GB SD card, USB cable and cleaning cloth.

(Prices exclude VAT)

	\$	€	£
216921 Stringer 3.5x42	\$328	€288	£212.50
212961 Stringer 5x50	\$386	€339	£249.96



Yukon MPR Mobile Player/Recorder

•Pre-set recording time and automatic shutdown

The Yukon MPR Mobile Player/Recorder allows you to record images and video clips from the Yukon Digital Ranger and view them on a built-in TFT 5cm display screen. Includes choice of recording resolutions, AV in/out ports, 70MB of built-in memory, long-lasting battery and SD card slot. The Player / Recorder can also take up to a 32GB memory card.

Designed to be attached to the Yukon Digital Ranger, it is also compatible with Pulsar handheld digital NV devices.

Includes charger, USB cable, AV cable and cable for the NV Digital Ranger. Dimensions: 65 x 55 x 17mm, Weight: 60g.

(Prices exclude VAT)

\$ 206 € 181 £ 133.33

Yukon Ranger Digital Night Vision Scope



•Digital scope

•5x magnification

The Yukon Digital Ranger combines the quality of a Generation Two or Three device with the affordability of a Generation One scope.

With both day and night usage capabilities it can't be damaged by bright lights such as car headlight or streetlamps. This feature makes it perfect for viewing at dusk or dawn.

The Ranger has the highest magnification available (x5) and gives a high quality clear image. This is because it utilises optical image magnification which means that there is no loss of image resolution. With an inbuilt light source it will work in complete darkness (e.g. in forests, away from urban areas and even inside buildings). The power output is controllable allowing you to alter image brightness/contrast.

The Ranger is designed to be versatile with a durable, compact body and unique innovations including a direct video output for video recording or remote viewing. It can also be used with the MPR Mobile Player/Recorder which allows you to record digital images or clips from your scope and view them during or after recording on the 5cm display screen.

Powered by 6 x AA batteries which will provide enough power for ten hours (without illuminator) or three hours (with illuminator) use. Dimensions: 170 x 116 x 76mm, Weight: 800g (with batteries); 650g (without batteries).

(Prices exclude VAT)

183227 Yukon Ranger Digital Night Vision Scope \$476 €418 £308.28

YUKON IR 'PULSE' SYSTEM

The Yukon 'Pulse' System utilises quick infrared energy bursts that penetrate the darkness further to increase distance, visibility and image quality. This system provides the highest level of illumination without significant battery drainage or untimely IR burnout.



Yukon NVMT Spartan 2x24 Night Vision Monocular

•2x magnification, 30° field of view

•Built-in short range Illuminator

The Yukon NVMT Spartan 2x24 night vision scope is an updated version of the earlier Yukon NVMT. The Spartan is probably the most versatile Generation One night vision device available: Ultra-compact, lightweight, easy to use and comfortable to hold. Its magnification and wide field of view makes it an excellent scope for general observation of wildlife. The built-in illuminator utilises the Yukon PULSE system, improving range and image quality. This model is powered by 1 x 3V CR123A battery (not included) and comes with a belt-mountable case. Dimensions: 142 x 82 x 80mm, Weight: 380g.

(Prices exclude VAT)

192078 Yukon NVMT Spartan \$219 €192 £141.67



Yukon Tracker NVG Night Vision Goggles

•Generation One goggles

•1x magnification, 30° field of view

For hands free night vision over a prolonged period of time the Tracker NVG is perfect. The head mount is padded for comfort and is fully adjustable. With its wide 30° field of view and built-in infrared illuminator, the Tracker NVG will enable viewing up to 200m away in ideal conditions. The illuminator utilises Yukon's exclusive PULSE system and the "Eclipse" lens cover system uses flip-up covers, eliminating lens cap hassles. The Tracker NVG comes with both the head mount and binocular scope which can be detached or flipped up. It is powered by a 3V CR123A battery and comes with a protective carry case. Dimensions: 175 x 123 x 72mm, Weight: 800g.

(Prices exclude VAT)

184098 Yukon Tracker NVG \$681 €599 £441.66



Cobra Optics 150mW High Power IR Illuminator

The Cobra Optics high power illuminator provides a total darkness capability of up to 200m with Generation One devices and 280m with Generation Two units.

Powered using a 3V Lithium CR123A battery (not included). Dimensions: 144 x 27 x 44mm, Weight: 96g.

(Prices exclude VAT)

193100 150mW IR Illuminator \$244 €215 £158.29



Yukon NVMT 100mW IR Illuminator

The 100mW NVMT Illuminator is compatible with Yukon NVMT monoculars and can also be handheld. This device can double or even triple the viewing distance of standard Generation One devices. Powered by 2 x 1.5V AA batteries. Dimensions: 230 x 30 x 55mm, Weight: 230g.

(Prices exclude VAT)

193101 100mW IR Illuminator \$90 €79 £58.29



NIGHT VISION AND THERMAL IMAGING TECHNOLOGY

Night Vision systems magnify available light (including the near infrared spectrum) and provide enhanced images based on the reflectance of this light by objects in front of the lens. This means that they can be ineffective when there is too much light (e.g. twilight) or at low light levels. Thermal Imaging systems work on an entirely different principle, constructing images based on the release of photons associated with thermal energy (heat). Thermal Imaging uses the lower invisible portion of the infrared spectrum and is associated with light being emitted by an object, rather than light being reflected off an object. This means that Thermal Imaging systems can be used in daylight or complete darkness, and because they actually visualise the differential in heat (or heat signature) between objects, they can even see heat signatures through fog and are used to detect electrical component failure, disturbed soil or animals hidden in foliage. The thermogram detected by the sensor in the device presents the data as a heatmap so that you can easily see warm areas and colder areas, outlining the shapes of animals, trees and buildings. Thermal Imaging devices are ideal for viewing warm-blooded animals at night and provide images of bats and owls in flight or animals at roost in dark places.

Choosing a Thermal Imaging System

There are several factors that you should consider to help you decide which Thermal Imaging system to choose.

Resolution - The resolution of the detector determines how sharp your image is as it represents the number of heat sampling points. Resolution is measured in pixels and the higher the resolution, the easier it is to spot small animals at distance, partly due to increased field of view.

Refresh Rate - The refresh rate determines how often the screen is refreshed with a set of measurements. This is particularly important for fast-moving animals such as bats and birds when a refresh rate of 30Hz or more is required.

Zoom - Some thermal imaging cameras have a zoom function to magnify your subject

Field of View - The field of view is the horizontal and vertical angle of view that you can see through the Thermal Imaging device. A wider field of view is useful when detecting small animals.

Maximum Detection Range - The maximum detection range gives an indication of how far the device will be able to detect a man-sized object effectively.

Recording Capability - Many thermal imaging cameras do not have a built-in recording capability but can be connected to an external recorder.



Guide IR510 Thermal Imaging Monocular

- 2x zoom or 2 - 4x zoom model
- Inbuilt LED torch
- Waterproof and robust

The Guide IR510 range provides entry level, compact thermal imaging monoculars that are housed in a robust and waterproof rubber case. They can be used both at night and during the day and in fog and rain and are great for closer range thermal imaging work. The heat signature of larger animals will be visible through foliage. The uncooled microbolometer sensor provides a heatmap of the surroundings and does not require an external light source, meaning that the Guide IR510 models can be used even in bright light.

The IR510 is available in two models. The IR510-160 has a 160x120 resolution sensor, 14.5mm lens, a field of view of 15.4° x 11.5° and 2x digital zoom. It allows man-sized detection at a distance of up to 300m and is great for use particularly with larger animals. The IR510-384 has a 384x288 resolution sensor, 19mm lens, a field of view of 28.3° x 21.4° and switchable 2x - 4x digital zoom. Man-sized detection is possible at a distance of up to 400m so the IR510-384 is also suitable for viewing smaller animals at greater distances. A simple four button interface

(power, brightness, mode and zoom) makes the monoculars easy to use and the focusing dial is easily adjusted in the dark and with gloved hands.

There are five colour viewing modes: Black hot, White hot, Red hot 1, Red hot 2 & Red hot 3 so you can adjust the colour contrast to suit the conditions. With a video frame rate of 50Hz, the Guide IR510 range is great for observing fast-moving animals at night, particularly at close quarters so would be ideal for roost emergence monitoring.

The Guide IR510 is powered by an internal rechargeable battery that provides a run time of up to eight hours. A 1/4" tripod socket provides a flexible mounting option and a micro-USB port can be used for connecting both the mains charger and the USB cable (used for updating firmware). The unit also has a video out port so it can be used in conjunction with an external recorder such as the Newton CVR640 Video Recorder. A built-in short-range white LED torch can be activated while the thermal imager is off. The IR510 comes with a three year warranty. Supplied with: mains charger, USB cable, wrist strap, soft bag, CD-ROM, quick start guide.

		\$	€	£
217058	Guide IR510-160	\$2,379	€2,091	£1,541.67
217059	Guide IR510-384	\$2,829	€2,486	£1,833.29

PULSAR QUANTUM S SERIES THERMAL IMAGING SCOPES

Pulsar Quantum S Series Thermal Imaging scopes can be used both at night-time and during the day, and in inclement weather conditions such as fog, smog and rain. They can be used to see through obstacles such as branches, tall grass and bushes and are an excellent tool for the nocturnal surveyor. The scopes all have a good level of detector resolution (384 x 288 pixels), providing excellent value for money, and varying detector ranges and refresh rates. Scopes with higher frame rates (30Hz) can be used to observe fast moving animals and are ideal for watching bat roosts.

Quantum thermal imaging scopes possess an IR sensor (uncooled microbolometer) which, unlike image intensifier tube based night vision devices, does not require an external light source and is not

affected by bright light exposure. The body is made of fibreglass reinforced plastic that is able to withstand impact, moisture and dust which allows the units to be used in extreme conditions and the rubber armouring ensures secure grip of the unit.

The buttons for all of the main control functions are located on the upper panel and are designed to be easy to use with both gloved and bare hands. Brightness and contrast are altered using the controller wheel next to the lens. The Quantum S gives the user three options for calibration: automatic ("A"), semi-automatic ("H") and silent manual mode ("M"). Supplied with: carrying case, user manual, video cable, hand strap, cigarette lighter adapter, spare battery container, cleaning cloth and warranty card.



Quantum S Series Models

19S Series - the 19S series is the entry level model, providing magnification of 1.1x, a field of view of 26.8° x 20.8° and a detection range of 500m for a man sized object. Resolution is 384 x 288. Available with a 9Hz (LD19S) or 30Hz (HD19S) refresh rate.

38S Series - the 38S series provides an improved detection range and higher magnification, with magnification of 2.1x, a field of view of 14.4° x 10.8° and a detection range of 950m for a man sized object. Resolution is 384 x 288. Available with a 9Hz (LD38S) or 30Hz (HD38S) refresh rate.

50S Series - the 50S series offers top of the range specifications, with magnification of 2.8x, a field of view of 11° x 8.3° and a detection range of 1250m for a man sized object. Resolution is 384 x 288. Available with a 9Hz (LD50S) or 30Hz (HD50S) refresh rate.

Operating modes

The Quantum S has three operating modes to cover different viewing conditions. "City" provides enhanced contrast, "Forest" provides low contrast and "Identification" gives improved rendering of hot object details. In addition to these options, users can choose between "white hot" and "black hot" viewing modes.

Rechargeable Lithium Batteries

• Extend the battery life of your night vision device

These rechargeable lithium polymer battery packs are designed for use with the Pulsar



Quantum Thermal Imaging Scopes and are also compatible with the Yukon Ranger and Yukon Ranger pro 5x42 Night Vision Scopes. The EPS3 has a 2.4Ah capacity and can be installed on any device with a Weaver rail. It also comes with a Weaver to 1/4" screw thread adapter for attachment to a standard tripod socket and a 1m extension cable. The EPS5 has a 5Ah capacity and is fitted with a 1m cable as standard. This allows the battery pack to be placed under clothing for use in freezing conditions. It also comes with a carrying case with belt strap.

(Prices exclude VAT)

	\$	€	£
211162 EPS3: 2.4Ah	\$109	€96	£70.79
211163 EPS5: 5Ah	\$129	€113	£83.29

Power supply

The Quantum S is powered by four AA batteries, which can provide up to 5.5 hours of continuous use. The scope can also be used with an external power such as the EPS3 or EPS5 (available to purchase separately). An LED indicator shows when battery levels are low.

Video output

Quantum scopes are equipped with an analogue video output and will allow you to connect an external recording device such as the Newton CVR640 (available to purchase separately).

(Prices exclude VAT)

	\$	€	£
211158 LD19S: 1.1x, 9Hz	\$2,636	€2,316	£1,708.33
211159 HD19S: 1.1x, 30Hz	\$2,829	€2,486	£1,833.29
211160 LD38S: 2.1x, 9Hz	\$3,470	€3,050	£2,249.17
211161 HD38S: 2.1x, 30Hz	\$3,663	€3,219	£2,374.17
217266 LD50S: 2.8x, 9Hz	\$4,178	€3,671	£2,707.50
217265 HD50S: 2.8x, 30Hz	\$4,306	€3,784	£2,790.83

Newton CVR640 Video Recorder

• Record images from your night vision device onto an SD card

The CVR640 is a compact unit designed to record the image produced by night vision devices possessing a video out socket. It is compatible with Quantum Thermal Imaging Scopes as well as the Yukon Ranger and Yukon Ranger Pro night vision monoculars. It requires three AAA batteries and has an operating time of up to seven hours. The recorder is connected to your night vision device using the supplied cable and is fitted with a Weaver mount (Weaver to 1.4" tripod socket adapter also included). Videos are recorded onto an SD card (included) and can be downloaded to your PC directly using the supplied USB cable. Compatible with Windows XP, Vista and 7.

(Prices exclude VAT)

	\$	€	£
211164 CVR640 Video Recorder	\$167	€147	£108.29



BUYERS GUIDE ▶ 2015

Magnification - The magnification is the first digit in the standard binocular classification (e.g. 8 x 42). Higher magnification increases image size, but the binoculars are more susceptible to hand movement and reduce the field of view.

Objective Lens Diameter - The objective lens diameter is measured in millimetres and is the second digit in the classification (e.g. 8 x 42 binoculars have 8x magnification and a lens diameter of 42mm). Larger lenses provide sharper images in poor light conditions but can be heavier.

Extra-low Dispersion / Fluoride Glass (ED / FL) - Extra-low Dispersion (ED) glass reduces chromatic aberrations to minimise colour fringing and provide crystal clear images. Fluoride (FL) glass provides even better colour reproduction and high detail resolution.

Lens Coatings - Lens or prism coatings reduce internal reflectance and maintain sharper images. Lenses can be multi-coated (MC) with multiple layers of anti-reflective lens coating or fully multi-coated (FMC) with all lens surfaces coated with multiple layers of anti-

CHOOSING A PAIR OF BINOCULARS

Binoculars vary in their magnification and the quality of image that they provide. All of the models in the NHBS range are roof prism binoculars, hermetically sealed and treated or filled with nitrogen or argon gas to ensure that they are fog- and waterproof and able to maintain performance in cold or humid conditions. All binoculars are supplied with a case and neck strap.

reflective coating. Manufacturers offer proprietary specialist coatings to improve image clarity further to improve light transmittance.

Prism Coatings - A Phase Correction prism coating (PC) greatly improves image contrast on roof prism binoculars and a dielectric prism coating (DC) on certain types of prism increases light transmittance to as much as 99% for razor sharp definition.

Field of View (FOV) - The field of view is how wide an image can be seen through the binoculars at a specified distance (1000m). A wider field of view is useful for fast moving animals or scanning large landscapes.

Close Focus (CF) - The minimum distance at which the binoculars are able to focus, useful if they are to be used to view insects such as dragonflies and butterflies.

Eye Relief (ER) - Particularly important for spectacle wearers. Measures the maximum distance from the eyepiece lens at which the full width of the image is visible without a black ring appearing (vignetting).

► Minox

The Minox range represents precision-engineered optics in beautifully designed binoculars

Minox BV

- Amazingly lightweight compact binoculars
- Crystal clear optics

The Minox BV compact binoculars provide fantastic optical performance in an exceptionally light aluminium body. With fully multi-coated optics the BV binoculars represent a versatile option for travelling or fieldwork or a high quality yet affordable gift. Covered by Minox 30 Year Warranty.

(Prices exclude VAT)	\$	€	£
188673 8 x 25 - Model 62030	\$153	€134	£99.17
188675 10 x 25 - Model 62031	\$161	€141	£104.17



Minox BL HD

- High quality HD optics, made in Germany
- Wider field of view

The Minox BL binoculars have a lightweight open hinge design that enables single-handed operation. The ED glass, phase correction prism coating and fully multi-coated images provide brilliant images. The wider field of view and increased objective lens diameter allow sharp images with high definition even following in low light conditions. Covered by Minox 30 Year Warranty.

(Prices exclude VAT)	\$	€	£
212689 8 x 44 - Model 62048	\$487	€428	£315.83
212690 10 x 44 - Model 62049	\$487	€428	£315.83



Minox HG

- Precision-engineered high grade optics
- Made in Germany

The Minox HG binoculars offer crystal clear optics comparable with the top brands. They are argon filled and the lenses are fully multi-coated with a 21-layer M* coating. The silver-bearing Minobright coated phase corrected prisms provide maximum transmittance in a lightweight magnesium body. Covered by Minox 30 Year Warranty.

(Prices exclude VAT)	\$	€	£
188836 8 x 43 - Model 62182	\$1,027	€903	£665.83
188837 10 x 43 - Model 62183	\$1,027	€903	£665.83



MINOX SPECIFICATIONS

CODE	MODEL	SIZE	ED / FL GLASS	LENS COATING	PC	FOV	ER	CF	DIMENSIONS	WEIGHT
188673	Minox BV	8x25	No	FMC	No	119m	15.5mm	1.5m	109 x 98mm	306g
188675	Minox BV	10x25	No	FMC	No	96m	15.5mm	1.5m	109 x 98mm	306g
201896	Minox BL HD	8x44	ED	FMC HD	Yes	136m	19.5mm	2.5m	150 x 133mm	740g
201897	Minox BL HD	10x44	ED	FMC HD	Yes	115m	17mm	2.5m	150 x 133mm	740g
188836	Minox HG	8x43	ED	FMC 21 layer M*	Yes	126m	19mm	2.5m	153 x 131mm	649g
188837	Minox HG	10x43	ED	FMC 21 layer M*	Yes	114m	17mm	2.5m	153 x 131mm	649g

KEY: ED - Extra Low Dispersion, FL - Fluoride PC - Phase Correction Prism Coating, FOV - Field Of View, ER - Eye Relief, CF - Close Focus

► Hawke Optics

The Hawke Optics range of binoculars combines great value for money with high quality performance

Hawke Optics Premier Compact

•Pocket sized binoculars

•Extensive field of view

The versatile Premier binoculars have an open hinge design and fold down to pocket size. Their wide angle makes them suitable for general use. They are available in 8 x 25, 10 x 25 or 12 x 25 sizes. The Premier binoculars have multicoated lenses for sharper images and twist up eye cups to adjust the eyepoint. Covered by the Hawke Limited Lifetime Guarantee.

(Prices exclude VAT)

	\$	€	£
209823 8 x 25 - HA4130	\$64	€56	£41.63
193522 10 x 25 - HA4131	\$71	€62	£45.79
193524 12 x 25 - HA4132	\$77	€68	£49.96



Hawke Optics Endurance PC

•Phase Correction prism coating

•Fully multi-coated lenses

The Endurance binoculars offer high quality optical performance, with fully multi-coated lenses and a Phase Correction prism coating for exceptional light transmittance, edge to edge clarity and impressive depth of field. With a tough rubber-armoured exterior, hermetically sealed and nitrogen purged body and attached lens caps, they provide top optical performance in the most challenging conditions. Covered by the Hawke Limited Lifetime Guarantee.

(Prices exclude VAT)

	\$	€	£
193514 8 x 42 - HA3944	\$194	€170	£125.42
193512 10 x 42 - HA3945	\$206	€181	£133.75



HAWKE OPTICS SPECIFICATIONS

CODE	MODEL	SIZE	ED / FL GLASS	LENS COATING	PC	FOV	ER	CF	DIMENSIONS	WEIGHT
209823	Premier	8x25	No	MC	No	119m	15mm	3.5m	109 x 110mm	320g
193522	Premier	10x25	No	MC	No	114m	13mm	3.5m	109 x 110mm	320g
193524	Premier	12x25	No	MC	No	94m	13mm	3.5m	109 x 110mm	320g
212966	Nature-Trek	8x42	No	FMC	No	129m	18mm	2m	144 x 127mm	630g
212967	Nature-Trek	10x42	No	FMC	No	101m	13mm	2m	144 x 127mm	630g
212968	Nature-Trek	10x50	No	FMC	No	101m	18mm	2.5m	162 x 132mm	829g
193514	Endurance PC	8x42	No	FMC	Yes	142m	18mm	2m	149 x 140mm	713g
193512	Endurance PC	10x42	No	FMC	Yes	113m	15mm	2m	149 x 140mm	713g
219418	Sapphire ED	8x42	ED	FMC	Yes	142m	18mm	2m	140 x 130mm	730g
219419	Sapphire ED	10x42	ED	FMC	Yes	113m	15mm	2m	140 x 130mm	730g

KEY:- **ED** - Extra Low Dispersion, **FL** - Fluoride

PC - Phase Correction Prism Coating, **FOV** - Field Of View, **ER** - Eye Relief, **CF** - Close Focus

BINOCULAR ACCESSORIES



Opticron Universal Mount

Clamps horizontally or vertically, panhead with 1/4" thread.

(Prices exclude VAT)

	\$	€	£
193279 Universal Mount	\$59	€52	£38.33

OP/TECH Bino/ Cam Harness

Self-adjusting webbing harness to balance binoculars comfortably in use or against the body. Available with elastic or webbing straps.

(Prices exclude VAT)

	\$	€	£
174506 Webbing Harness	\$13	€11	£8.33
174507 Elastic Harness	\$22	€19	£14.16



Bushnell Lens Cleaning Kit

Microfibre cleaning cloth, retractable lens brush, cleaning solution and storage bag, ideal for binoculars and trail camera lenses.

(Prices exclude VAT)

	\$	€	£
217959 Cleaning Kit	\$14	€12	£9.16



OPTICRON BINOCULARS

► Opticron

The Opticron range of binoculars offers fantastic optical precision at affordable prices

Opticron Oregon 4 LE WP

•High quality entry-level binoculars

These Opticron Oregon binoculars have fully multi-coated lenses to provide impressively sharp and neutral images in a robust but sleek rubber-armoured casing. Nitrogen filled to make them fog- and waterproof and have twist up eye cups and long eye relief. They have a wide easy focussing wheel and attached lens caps.



(Prices exclude VAT)

		\$	€	£
210209	8 x 32 - 30525	\$120	€105	£77.50
210210	8 x 42 - 30526	\$132	€116	£85.83
210211	10 x 42 - 30527	\$145	€128	£94.17
210212	10 x 50 - 30528	\$158	€139	£102.50

Opticron Countryman BGA HD

•Great field of view for surveying

The Opticron Countryman binoculars offer high definition optics with 64 layer Oasis prism coating that renders sharp images, brighter than ever. Fantastic field of view, great for surveying large landscapes or fast-moving animals. With a rugged exterior, wide wheel glide focussing, these are top quality binoculars at a great price.



(Prices exclude VAT)

		\$	€	£
196549	8 x 42 - 30605	\$436	€383	£282.50
196550	10 x 42 - 30606	\$449	€394	£290.83
196551	10 x 50 - 30607	\$469	€412	£304.17

Opticron Traveller BGA Mg

•Ultra-lightweight full specification binoculars

The Opticron Traveller binoculars offer all the optical quality of full size binoculars in a compact and lightweight body, making them ideal for travelling. With Oasis 64 layer prism coating and phase correction, they provide neutral images with minimal edge distortion and both fantastic field of view and close focus.



(Prices exclude VAT)

		\$	€	£
209796	6 x 32 - 30497	\$333	€293	£215.83
209797	8 x 32 - 30498	\$346	€304	£224.17
209798	10 x 32 - 30499	\$372	€327	£240.83

OPTICRON SPECIFICATIONS

CODE	MODEL	SIZE	ED / FL GLASS	LENS COATING	PC	FOV	ER	CF	DIMENSIONS	WEIGHT
210209	Oregon 4	8x32	No	FMC	No	142m	15mm	1.8m	109 x 116mm	497g
210210	Oregon 4	8x42	No	FMC	No	114m	22mm	2.9m	150 x 125mm	677g
210211	Oregon 4	10x42	No	FMC	No	102m	19mm	2.9m	150 x 125mm	681g
210212	Oregon 4	10x50	No	FMC	No	81m	22mm	2.5m	170 x 130mm	845g
209782	Natura	8x42	No	FMC 64 layer Oasis	Yes	109m	19mm	2.9m	138 x 126mm	660g
209783	Natura	10x42	No	FMC 64 layer Oasis	Yes	88m	18mm	2.7m	138 x 126mm	668g
196549	Countryman	8x42	No	FMC 64 layer Oasis	Yes	122m	22mm	2.3m	138 x 126mm	682g
196550	Countryman	10x42	No	FMC 64 layer Oasis	Yes	105m	17mm	2.3m	138 x 126mm	701g
196551	Countryman	10x50	No	FMC 64 layer Oasis	Yes	88m	19mm	4.0m	167 x 131mm	797g
209793	Verano	8x32	No	FMC 64 layer Oasis F Type	Yes	140m	17mm	1.5m	128 x 122mm	609g
209794	Verano	8x42	No	FMC 64 layer Oasis F Type	Yes	122m	22mm	2.0m	152 x 128mm	739g
209795	Verano	10x42	No	FMC 64 layer Oasis F Type	Yes	113m	21mm	2.0m	152 x 128mm	738g
209786	Explorer	8x42	No	FMC	Yes	131m	17mm	2.0m	140 x 126mm	672g
209787	Explorer	10x42	No	FMC	Yes	113m	15mm	2.5m	140 x 126mm	638g
209796	Traveller	6x32	No	FMC 64 layer Oasis	Yes	141m	19mm	1.5m	98 x 118mm	367g
209797	Traveller	8x32	No	FMC 64 layer Oasis	Yes	111m	19mm	1.5m	98 x 118mm	380g
209798	Traveller	10x32	No	FMC 64 layer Oasis	Yes	90m	16mm	1.5m	98 x 118mm	370g

KEY:- ED – Extra Low Dispersion Glass, PC – Phase Correction Prism Coating, FOV – Field Of View, ER – Eye Relief, CF – Close Focus

Opticron Natura BGA

BESTSELLER

•Lightweight double hinged body



The Opticron Natura BGA binoculars are made in Japan to the highest specification, with 64 layer Oasis prism coating and phase correction to provide excellent colour definition. Lightweight with an open hinge design so they can be used single-handed and with natural rubber armouring and attached lens caps, they are ideal for fieldwork.

(Prices exclude VAT)

		\$	€	£
209782	8 x 42 - 30629	\$346	€304	£224.17
209783	10 x 42 - 30630	\$359	€315	£232.50

Opticron Verano BGA HD

•Recommended by the British Trust for Ornithology



The Opticron Verano binoculars deliver exceptional optical performance for their price. Outstanding specifications including F type multi-coating on PGK prisms, phase correction and Oasis 64 layer prism coating, to provide crystal clear images with optimised colour contrast. Tough, lightweight polycarbonate double-hinged body.

(Prices exclude VAT)

		\$	€	£
209793	8 x 32 - 30600	\$513	€451	£332.50
209794	8 x 42 - 30601	\$526	€462	£340.83
209795	10 x 42 - 30602	\$539	€473	£349.17

Opticron Explorer WA

•Wide angle field of view



The Opticron Explorer binoculars deliver an impressive wide-angle field of view with minimum edge distortion, perfect for surveying large landscapes or fast moving animals. They have phase-corrected prisms and fully multi-coated lenses for crisp images with good tonal reproduction. The lightweight magnesium alloy body provides excellent balance and they are fully nitrogen waterproofed.

(Prices exclude VAT)

		\$	€	£
209786	8 x 42 - 30614	\$256	€225	£165.83
209787	10 x 42 - 30615	\$269	€236	£174.17

► Nikon

The Nikon range of binoculars is renowned for top quality crystal clear optical performance

Nikon Prostaff 5

•Entry-level high quality binoculars

The Nikon Prostaff 5 range provides quality optical performance in a rugged shock-resistant yet lightweight polycarbonate body, perfect for general field surveying. Fully multilayer coated lenses for bright, clear images and made from Nikon's environmentally safe 'Eco-glass', free from lead and arsenic. They are nitrogen gas filled to ensure that they are fogproof and waterproof.



(Prices exclude VAT)

		\$	€	£
211132	8 x 42 - BAA820SA	\$217	€191	£140.83
211133	10 x 42 - BAA821SA	\$230	€202	£149.17
211134	10 x 50 - BAA822SA	\$251	€220	£162.50
211135	12 x 50 - BAA823SA	\$282	€247	£182.50

Nikon Monarch 5

•Acclaimed mid-range binoculars with ED glass

The Nikon Monarch range is reknowned for providing exceptional yet affordable image quality. Improved range with Nikon's extra-low dispersion (ED) 'Eco-glass' to reduce chromatic aberration. All lens and prism surfaces are fully multilayer coated, and with a dielectric high-reflective coating and phase correction, the Monarch 5 prism provides superior light transmittance, brighter images with exceptional resolution and more natural colours. In a tough rubber-armoured waterproof shell on a lightweight nitrogen-filled body, these are top performing binoculars for birdwatching or surveying.



(Prices exclude VAT)

		\$	€	£
211085	8 x 42 - BAA830SA	\$384	€338	£249.17
211086	10 x 42 - BAA831SA	\$417	€366	£270.00
211087	12 x 42 - BAA832SA	\$4,401	€3,868	£2852.50

Nikon Sportstar EX DCF Compact

•Ultra-lightweight, perfect for travelling

The Nikon Sportstar EX DCF Compact Binoculars are pocket-sized and ultra-lightweight. They feature Nikon's 'Eco-glass' with multilayer coated lenses to deliver bright, clear images with well-balanced colour and a fantastic field of view. Nitrogen-filled to make them waterproof and fog-free, with a sleek rubber coating. Available in two sizes and two colours.



Nikon Prostaff 7S

•Fully multi-coated optics with phase correction

The Nikon Prostaff 7S range provides top quality optical performance in a shock-resistant, lightweight body, perfect for birdwatching or general field surveying. All lenses and prisms are 'Eco-glass' and fully multilayer coated for bright, sharp images and the high-reflection mirror-coated prisms have a phase-correction coating for high resolution. Nitrogen gas filled to make them fog- and waterproof.

(Prices exclude VAT)

		\$	€	£
211136	8 x 42 - BAA840SA	\$276	€243	£179.17
211137	10 x 42 - BAA841SA	\$289	€254	£187.50



Nikon Monarch 7

•Exceptional ED glass optics with wider field of view

The redesigned Monarch 7 range offers a wider field of view whilst ensuring exceptional image quality with Nikon's extra-low dispersion (ED) 'Eco-glass' to reduce chromatic aberration. All lenses and prisms are fully multilayer coated, and the phase corrected prisms have a dielectric high-reflective multilayer coating for superior light transmittance, brighter images, clearer whites and more natural colours. With a waterproof, rubber-armoured shell for shock resistance, nitrogen-filled lightweight body, and a scratch-resistant lens coating (8 x 42 and 10 x 42 models), these robust binoculars are perfect for birdwatching or surveying.

(Prices exclude VAT)

		\$	€	£
211127	8 x 30 - BAA787SA	\$346	€304	£224.17
211128	10 x 30 - BAA788SA	\$372	€327	£240.83
211129	8 x 42 - BAA785SA	\$539	€473	£349.17
211130	10 x 42 - BAA786SA	\$577	€507	£374.17



(Prices exclude VAT)

		\$	€	£
211614	8 x 25 Charcoal Grey - BAA710AA	\$102	€89	£65.83
211615	8 x 25 Silver Grey - BAA710AA	\$102	€89	£65.83
211616	10 x 25 Charcoal Grey - BAA711AA	\$127	€112	£82.50
211617	10 x 25 Silver Grey - BAA711AA	\$127	€112	£82.50

NIKON SPECIFICATIONS

CODE	MODEL	SIZE	ED / FL GLASS	LENS COATING	PC	FOV	ER	CF	DIMENSIONS	WEIGHT
211132	Prostaff 5	8x42	No	FMC	No	110m	17.6mm	5.0m	165 x 130mm	645g
211133	Prostaff 5	10x42	No	FMC	No	98m	15.2mm	5.0m	163 x 130mm	650g
211134	Prostaff 5	10x50	No	FMC	No	98m	19.6mm	5.0m	187 x 140mm	815g
211135	Prostaff 5	12x50	No	FMC	No	52.4m	15.5mm	5.0m	183 x 140mm	790g
211136	Prostaff 7S	8x42	No	FMC	Yes	119m	19.5mm	4.0m	167 x 129mm	650g
211137	Prostaff 7S	10x42	No	FMC	Yes	108m	15.5mm	4.0m	164 x 129mm	645g
211085	Monarch 5	8x42	Yes ED	FMC Dielectric Multilayer	Yes	110m	19.5mm	2.5m	145 x 129mm	590g
211086	Monarch 5	10x42	Yes ED	FMC Dielectric Multilayer	Yes	96m	18.4mm	2.5m	145 x 129mm	600g
211087	Monarch 5	12x42	Yes ED	FMC Dielectric Multilayer	Yes	87m	15.1mm	2.5m	145 x 129mm	600g
211127	Monarch 7	8x30	Yes ED	FMC Dielectric Multilayer	Yes	145m	15.1mm	2.0m	119 x 123mm	435g
211128	Monarch 7	10x30	Yes ED	FMC Dielectric Multilayer	Yes	117m	15.8mm	2.0m	119 x 123mm	440g
211129	Monarch 7	8x42	Yes ED	FMC Dielectric Multilayer	Yes	140m	17.1mm	2.5m	142 x 130mm	650g
211130	Monarch 7	10x42	Yes ED	FMC Dielectric Multilayer	Yes	117m	16.5mm	2.5m	142 x 130mm	660g
211614	Sportstar	8x25	No	MC	No	143m	10.0mm	2.5m	103 x 114mm	300g
211615	Sportstar	8x25	No	MC	No	143m	10.0mm	2.5m	103 x 114mm	300g
211616	Sportstar	10x25	No	MC	No	114m	10.0mm	3.5m	103 x 114mm	300g
211617	Sportstar	10x25	No	MC	No	114m	10.0mm	3.5m	103 x 114mm	300g

KEY:- **ED** - Extra Low Dispersion, **FL** - Fluoride **PC** - Phase Correction Prism Coating, **FOV** - Field Of View, **ER** - Eye Relief, **CF** - Close Focus

ZEISS BINOCULARS

► Zeiss

The Carl Zeiss name is associated with optical performance of the highest quality

Terra ED

- Entry level Zeiss binoculars
- ED glass for clear bright images

The Terra ED range provides Zeiss quality optical performance in a robust body. With ED glass to reduce colour fringing and phase-corrected Schmidt-Pechan prisms for brilliant images, they also have an excellent close focus distance. The body is lightweight and compact, making them ideal for everyday use. Supplied with velvet carrying pouch, covered by Zeiss two year warranty.



(Prices exclude VAT)

	\$	€	£
213349 8 x 42 - 524205	\$436	€383	£282.50
213350 10 x 42 - 524206	\$487	€428	£315.83

Victory HT

- Schott high transmission lenses
- 95%+ light transmission

The Victory HT binoculars are the brightest premium binoculars on the market with light transmission of 95%+, perfect for using in low light. They have fluoride glass, Schott high transmission lenses, Zeiss T* multilayer coating and an Abbe König prism system, for superior optical performance. With the LotuTec exterior lens coating, a wide field of view and good close focus, the Victory HT binoculars are ideal for birdwatching in all conditions. Ten year warranty.



(Prices exclude VAT)

	\$	€	£
219019 8 x 42 - 524528	\$1,961	€1,723	£1,270.83
219020 10 x 42 - 524529	\$1,996	€1,754	£1,293.75

Conquest Compact T*

- Lightweight ultra compact design
- Zeiss T* multilayer coating

The Conquest Compact binoculars are the lightest premium compacts on the market with an ultra compact Z folding design that makes them the ideal binoculars for travelling. They offer all the optical performance of the full sized Conquest range, with Zeiss T* multilayer coating and phase corrected Schmidt Pechan prisms, for brilliant images even in low light conditions. Ten year warranty.



(Prices exclude VAT)

	\$	€	£
219065 8 x 20 - 522073	\$424	€373	£275.00
219066 10 x 25 - 522074	\$487	€428	£315.83

ZEISS SPECIFICATIONS

CODE	MODEL	SIZE	ED / FL GLASS	LENS COATING	PC	FOV	ER	CF	DIMENSIONS	WEIGHT
213349	Terra ED	8x42	ED	FMC	Yes	125m	18mm	1.6m	142 x 110mm	690g
213350	Terra ED	10x42	ED	FMC	Yes	110m	18mm	1.6m	142 x 110mm	690g
217268	Conquest	8x32	ED	Zeiss T* Multilayer	Yes	140m	16mm	1.5m	132 x 118mm	630g
217269	Conquest	10x32	ED	Zeiss T* Multilayer	Yes	118m	16mm	1.5m	132 x 118mm	630g
217270	Conquest	8x42	ED	Zeiss T* Multilayer	Yes	128m	18mm	2.0m	150 x 120mm	795g
217271	Conquest	10x42	ED	Zeiss T* Multilayer	Yes	115m	18mm	2.0m	150 x 120mm	795g
219019	Victory HT	8x42	FL	Zeiss T* Multilayer	Yes	136m	16mm	1.9m	167 x 128mm	830g
219020	Victory HT	10x42	FL	Zeiss T* Multilayer	Yes	110m	16mm	1.9m	167 x 128mm	850g
217973	Victory SF	8x42	Ultra-FL	Zeiss T* Multilayer	Yes	148m	18mm	1.5m	173 x 125mm	780g
217974	Victory SF	10x42	Ultra-FL	Zeiss T* Multilayer	Yes	120m	18mm	1.5m	173 x 125mm	780g
219065	Conquest Compact	8x20	No	Zeiss T* Multilayer	Yes	110m	15mm	3.0m	102 x 93mm	185g
219066	Conquest Compact	10x25	No	Zeiss T* Multilayer	Yes	88m	15mm	5.0m	119 x 97mm	200g
219063	Victory Compact	8x20	FL	Zeiss T* Multilayer	Yes	118m	13.5mm	2.6m	93 x 97mm	225g
219064	Victory Compact	10x25	FL	Zeiss T* Multilayer	Yes	95m	13.5mm	4m	110 x 97mm	250g

KEY:- ED - Extra Low Dispersion, FL - Fluoride PC - Phase Correction Prism Coating, FOV - Field Of View, ER - Eye Relief, CF - Close Focus

Conquest HD

- Zeiss T* multilayer coating
- 90%+ light transmission

The Conquest HD range combines ED glass with the proprietary Zeiss T* multilayer coating for brilliant contrast even in low light. With an extra wide field of view for scanning large landscapes and excellent close focus distance for insect work, they are the ideal all purpose binoculars. The Conquest HD range also has a LotuTec exterior lens coating to repel water and dirt. Ten year warranty.



(Prices exclude VAT)

	\$	€	£
217268 8 x 32 - 523211	\$817	€718	£529.17
217269 10 x 32 - 523212	\$868	€763	£562.50
217270 8 x 42 - 524211	\$899	€790	£582.50
217271 10 x 42 - 524212	\$950	€835	£615.83

Victory SF

- Multiple Ultra-FL lenses with field flattener
- 92% light transmission

The new Victory SF range provides an extra wide field of view, excellent close focus and unparalleled optical performance. With the Schott glass Ultra-FL lens system, and a seven lens eyepiece with field flattener, they offer brilliant contrast and colour reproduction with edge to edge clarity. Victory SF binoculars are ergonomic and perfectly balanced for extended use, with a LotuTec exterior lens coating and a new SMART FOCUS system for fast focusing. Ten year warranty.



(Prices exclude VAT)

	\$	€	£
217973 8 x 42 - 524221	\$2,636	€2,316	£1,708.33
217974 10 x 42 - 524222	\$2,668	€2,345	£1,729.17

Victory Compact T*

- FL glass for reduced colour fringing
- Zeiss T* multilayer coating

The Zeiss Victory Compact range offers premium optical performance in a compact, lightweight body. With FL glass and Zeiss T* multilayer coating, they provide sharp, bright images even in low light, and the waterproof body and LotuTec lens coating make them ideal for all conditions. Due to the balanced design, one-handed use is easy, perfect for rugged terrain. Ten year warranty.



(Prices exclude VAT)

	\$	€	£
219063 8 x 20 - 522078	\$629	€553	£407.50
219064 10 x 25 - 522079	\$662	€582	£429.17

► Swarovski

Swarovski binoculars are hand assembled in Austria for outstanding build quality and exceptional performance

Swarovski SLC

- HD fluoride lenses minimise colour fringing
- SWAROBRIGHT, SWAROTOP and SWARODUR coatings
- Wide angle eyepiece

The Swarovski SLC range offers top quality general purpose binoculars. The HD fluoride lenses provide natural colour rendition and razor sharp images and combine with enhanced lens and phase prism coatings, SWAROBRIGHT, SWAROTOP and SWARODUR, for better colour reproduction and light transmission. The SWAROCLEAN coating on the exterior lens surface adds a non-stick effect so that they are easier to clean. They have a wide angle eyepiece that gives a large field of view with edge to edge sharpness, ensuring excellent performance at dusk and dawn. The SLC binoculars are rugged and perfectly balanced so that long observations become more comfortable and there is a thread connection for tripod mounting. Ten year warranty.



(Prices exclude VAT)

	\$	€	£
219552 8x42	\$1,516	€1,332	£982.50
219553 10x42	\$1,601	€1,407	£1,037.50
219554 8x56	\$1,903	€1,672	£1,233.33
219555 10x56	\$1,961	€1,723	£1,270.83
219556 15x56	\$2,019	€1,774	£1,308.33

Swarovski CL Pocket

- SWAROBRIGHT lens coating
- Lightweight and compact

The Swarovski CL Pocket binoculars offer fantastic optical performance in a compact body that can be easily tucked into a pocket. The high quality SWAROBRIGHT lens and prism coatings ensure excellent performance even at low light, and the wide field of view and precision focusing mean that you can easily focus on fast moving animals or large landscapes. The rubber armouring protects the binoculars against shocks and they are nitrogen purged to eliminate fogging. The CL Pocket range is waterproof to 4m so ideal for use in even the toughest of weather conditions. Available in green, black or sand brown colours. Ten year warranty.



(Prices exclude VAT)

	\$	€	£
220990 8x25 Green	\$636	€559	£412.50
220993 10x25 Green	\$681	€599	£441.67

SWAROVSKI SPECIFICATIONS

CODE	MODEL	SIZE	ED / FL GLASS	LENS COATING	PC	FOV	ER	CF	DIMENSIONS	WEIGHT
219552	SLC	8x42	FL	SWB, SWD, SWT	Yes	136m	18.5mm	3.2m	149 x 120mm	810g
219553	SLC	10x42	FL	SWB, SWD, SWT	Yes	110m	16.0mm	3.2m	144 x 122mm	790g
219554	SLC	8x56	FL	SWB, SWD, SWT	Yes	133m	23.0mm	3.9m	194 x 141mm	1225g
219555	SLC	10x56	FL	SWB, SWD, SWT	Yes	110m	19.5mm	3.9m	192 x 141mm	1195g
219556	SLC	15x56	FL	SWB, SWD, SWT	Yes	78m	16.0mm	3.9m	192 x 141mm	1200g
219144	EL	8x32	FL	SWAROVISION	Yes	141m	20.0mm	1.9m	138 x 110mm	580g
219145	EL	10x32	FL	SWAROVISION	Yes	120m	20.0mm	1.9m	138 x 110mm	580g
219146	EL	8.5x42	FL	SWAROVISION	Yes	133m	20.0mm	1.5m	160 x 122mm	835g
219147	EL	10x42	FL	SWAROVISION	Yes	112m	20.0mm	1.5m	160 x 122mm	840g
219148	EL	10x50	FL	SWAROVISION	Yes	115m	20.0mm	2.8m	174 x 134mm	998g
219149	EL	12x50	FL	SWAROVISION	Yes	100m	19.0mm	2.8m	174 x 134mm	998g
220990	CL Pocket	8x25	No	SWB	Yes	119m	17.0mm	2.5m	110 x 98mm	345g
220993	CL Pocket	10x25	No	SWB	Yes	98m	17.0mm	2.5m	110 x 98mm	350g
219871	CL Companion	8x30	No	SWB	Yes	124m	15.0mm	3.0m	119 x 114m	500g
219874	CL Companion	10x30	No	SWB	Yes	100m	14.0mm	3.0m	119 x 114m	515g

KEY:- ED - Extra Low Dispersion, FL - Fluoride PC - Phase Correction Prism Coating, FOV - Field Of View, ER - Eye Relief, CF - Close Focus



Swarovski EL

- SWAROVISION technology
- Bright, crisp images to the very edge of lens
- Great close focus

The EL binoculars feature unique SWAROVISION technology and precise ergonomic design to give premium performance and comfortable use. SWAROVISION incorporates field flattener lenses, HD fluoride glass, Eye Relief Plus and the enhanced lens and prism coatings SWARODUR, SWAROTOP and SWAROBRIGHT for optimal optical performance. This results in bright, clear images, with minimal colour distortion, that extend to the very edge of the lens, even for wearers of spectacles. The wide angle eyepiece provides an exceptionally large field of view and they have a short close focus distance. The EL binoculars feature SWAROCLEAN for easier cleaning and have rugged magnesium housing with rubber armouring and a strong twin bridge construction. Ten year warranty. Colour: green.

(Prices exclude VAT)

	\$	€	£
219144 8x32	\$1,852	€1,627	£1,200.00
219145 10x32	\$1,890	€1,661	£1,225.00
219146 8.5x42	\$2,269	€1,994	£1,470.83
219147 10x42	\$2,295	€2,017	£1,487.50
219148 10x50	\$2,442	€2,146	£1,582.50
219149 12x50	\$2,469	€2,170	£1,600.00

Swarovski CL Companion

- SWAROBRIGHT lens coating
- Ideal for travelling

The CL Companion binoculars provide specifications that are comparable with standard sized binoculars, but in a pocket sized form that is perfect for travelling. The SWAROBRIGHT lens and prism coatings ensure noticeably better colour reproduction and light transmission with maximum colour fidelity across the whole spectrum. They have a wide field of view and precision focusing for fast moving animals and large landscapes. With a lightweight, ergonomically balanced top hinge design and thumb recesses on the underside, they can be used for hours without fatigue. Available in green, black or sand brown colours. Ten year warranty.

(Prices exclude VAT)

	\$	€	£
219871 8x30 Green	\$963	€846	£624.17
219874 10x30 Green	\$984	€864	£637.50

SPOTTING SCOPES


Hawke Optics
Nature Spotting Scope
•Entry-level Spotting Scope kit, ideal for beginners

The Nature Spotting Scope has fully multi-coated optics to provide bright images. It has a zoom eyepiece and provides either 20–60 x 60 or 24–72 x 70 magnification ranges on a body with a 45° eyepiece angle to make viewing easier. This scope has a tough rubber waterproof coating and is provided with a hard storage case, soft carrying pouch and aluminium tripod.

	\$	€	£
196543 Nature Spotting Scope 20–60 x 60	\$154	€136	£99.96
195850 Nature Spotting Scope 24–72 x 70	\$193	€169	£124.96

Velbon Sherpa 200R Tripod
•Versatile lightweight tripod for use with scopes or cameras

The Velbon Sherpa 200R Tripod is manufactured from high-quality aluminium, making it lightweight but also stable. It is equipped with a central column adjustment and 3-way panhead quick-release platform system that allows locking of pan and tilt movements with one twist.

	\$	€	£
202321 Velbon Sherpa Tripod	\$96	€85	£62.50

MONOCULARS

Opticron BGA
•Versatile monocular for distance or close focus

The BGA monocular has a large objective lens, fully multi-coated optics and high quality Morita roof prism to deliver viewing akin to binoculars in a pocket size. It has nitrogen waterproofing and long eye relief with a close focus of 2m for insect work. Supplied with lens caps, belt holster case, neck strap and microfibre cloth.



	\$	€	£
180373 8 x 42	\$192	€168	£124.17
180375 10 x 42	\$204	€180	£132.50

BESTSELLER
Opticron
MM3 50 ED
Travelscope
•Compact scope with high quality optics

The MM3 is an ideal travelscope, with bright fully multi-coated ED (extra-low dispersion) optics and measuring only 21cm for portability. The MM3 is available in a straight through or 45° angle version and as a kit with body, waterproof case, Velbon Sherpa 200R Tripod and HR-MM3 13–39x zoom eyepiece. Individual components can also be purchased separately. The MM3 has full compatibility with HR, HDF and SDL eyepieces.

(Prices exclude VAT)

	\$	€	£
211607 MM3 50 Kit	\$706	€620	£457.50
211627 MM3 50/45 Kit	\$706	€620	£457.50
211152 MM3 50 Body	\$366	€321	£237.08
211153 MM3 50/45 Body	\$366	€321	£237.08
211648 MM3 50 Case	\$72	€63	£46.67
211649 MM3 50/45 Case	\$72	€63	£46.67
211154 HR-MM3 13–39x Eyepiece	\$182	€160	£117.92



MM3 50 Body



Case



Eyepiece



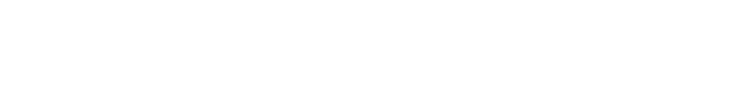
Eyepiece

Opticron IS 60 WP
Fieldscope
•High quality lightweight spotting scope for birdwatching or surveying

The IS 60 delivers great resolution and depth of field with bright fully multi-coated optics. It has a 60mm objective lens and is available with the option of a straight through (model IS 60 WP) or 45° angled body (model IS 60/45 WP). Available either as a kit with the body, waterproof case and Opticron IS 18–54x zoom eyepiece or as the individual components.

(Prices exclude VAT)

	\$	€	£
196560 IS 60 WP Kit	\$294	€259	£190.83
196561 IS 60/45 WP Kit	\$294	€259	£190.83
196562 IS 60 WP Body	\$192	€168	£124.17
196563 IS 60/45 WP Body	\$192	€168	£124.17
196565 IS 60 WP Case	\$76	€67	£49.17
196566 IS 60/45 WP Case	\$76	€67	£49.17
196564 IS 18–54x Eyepiece	\$96	€85	£62.50



Case

Opticron Gallery Scope
•Fantastic pocket sized monocular that converts into a microscope

The Opticron Gallery Scope is a multi-functional compact monocular weighing only 100g. It has a great field of view and fully-coated roof prism for distance viewing but a close focus of 0.3m for macro work with insects or plants. It converts into x24 microscope with additional LED stand. Supplied with lens caps, leatherette case and neck strap.



	\$	€	£
193275 Gallery Scope	\$114	€101	£74.17
193737 Microstand with LED	\$50	€44	£32.50

Minox Macroscope MS 8 x 25
•High quality waterproof monocular for distance viewing or macro work

The Minox Macroscope MS provides top optical performance at both the distance and macro scale, with a field of view of 119m and a close focus of 0.35m. It has a Minox Quick Close Focus wheel and bright multi-coated Porro Prism optics in a lightweight waterproof body. Supplied with a stay-on case and strap, perfect for field work or walking in any weather.



	\$	€	£
188701 Silver	\$174	€153	£112.50
188704 Black	\$174	€153	£112.50

Hides.

See page 84

P84 »



Nest Boxes

See page 38–59

P38–59 »



Sound Recording

See page 98–105

P98–105 »



Outdoor Clothing

See page 198–199

P198–199 »



Opticron Smartphone Photoadapters

• Connect your Smartphone to your spotting scope

Opticron Smartphone Photoadapters allow you to easily connect your Smartphone to the eyepiece of your spotting scope, enabling you to take high magnification images and videos with your phone. These easy to use adapters are available for use with the iPhone 4, 4S, 5 and 5S as well as the Samsung S3 and S4. The adapters listed below are compatible with the Opticron HR 13–39x MM3 Zoom Eyepiece (Opticron code 40933) and can be used with the MM3 50 ED Travelscope Kit.

	\$	€	£
221758 iPhone 4/4S	\$58	€51	£37.46
221759 iPhone 5/5S	\$58	€51	£37.46
221760 Samsung S3	\$71	€62	£45.79
221761 Samsung S4	\$71	€62	£45.79



Mitex PMR 446 Two-Way Radio

• No licence required

The Mitex PMR 446 two-way hand-held radio is a compact and lightweight walkie-talkie which is supplied pre-programmed and therefore requires minimal setup or training. They are ideal for all short range communication needs and will transmit up to 10km in optimum conditions. These radios can be used licence free in most European countries and come complete with lithium-ion battery pack, intelligent charger pod, wrist strap and user manual. Sold singly.

(Prices exclude VAT)

215265 Mitex PMR 446



\$	€	£
\$96	€85	£62.46

Stainless Steel Hand-Held Counter

BESTSELLER



Quality 4-digit metal body mechanical counter with push button actuator and reset button. Ergonomically designed, this counter features a finger ring and sturdy chrome plated steel construction. Counts from 0 to 9999.

(Prices exclude VAT)

183511 Hand-Held Counter

\$	€	£
\$10	€9	£6.46

Telescopic Inspection Mirror

This telescopic inspection mirror can be used for checking natural cavities, such as woodpecker holes, as well as nest boxes and other spaces with limited visual access.

It consists of a small mirror (55mm diameter) mounted on a telescopic pole that extends from 250mm to a total length of 780mm.

(Prices exclude VAT)

210619 Inspection Mirror

\$	€	£
\$17	€15	£10.83

Birder's Pocket Logbook

• Includes a checklist of British species



The Birder's Pocket Logbook is ideal for keeping your personal records and for sending your observations to your county recorder. It is designed to be tough and hardwearing and has a tactile dark green cover and book sections, sewn along the spine for extra strength. An elasticated divider prevents the pages from flapping when writing your notes.

(Prices exclude VAT)

208628 Birder's Pocket Logbook

\$	€	£
\$10	€9	£6.66

Rite in the Rain Birder's Journal

• Made from waterproof paper



The Birder's Journal is made from all-weather paper which will survive torrential rain and extreme heat. It is side spiral bound and has 64 pages (32 sheets). Each page has one side for a sketch or photograph whilst the other contains spaces for information on date, time, weather, location and other notes.

(Prices exclude VAT)

207780 Birder's Journal

\$	€	£
\$11	€10	£7.45



Bird-Spot Laser Pointer

This green laser makes it easy to point out the location of a bird to fellow observers. The 4–5mW laser is certified for bird and human safety and the pointer is completely waterproof. Powered by a CR123A battery (included) which will power the laser for approximately six hours. Measures 126 x 24 x 24mm; Weight 108g.

(Prices exclude VAT)

221783 Bird-Spot Laser Pointer

\$	€	£
\$96	€85	£62.49

MIST NETS



Purchasing Restrictions: Mist nets will only be sold to people licensed to use them. If you are a licensed bird ringer with a mist net endorsement, or licensed to catch bats, please supply a copy of your BTO, NE, CCW or SNH licence. If you are purchasing from overseas, please contact us for requirements.



Choosing a mist net - The choice of mist nets for a catching session should be tailored to the target species, location and conditions of use. The number of nets used should be determined by the number of people extracting; higher total net area requires careful monitoring because of potentially large catches.

Net Dimensions - The length of net used is determined by the area of coverage required. All net dimensions are given without loops and stretched to a standard tension. Shorter nets are ideal for small spaces whereas longer nets can aid with sparse distribution of target species.

Mesh Size - The mesh size chosen is determined by which species of bird or bat is being caught; smaller species will escape or become more entangled in larger mesh, whereas larger species will escape from smaller mesh. Mesh size is measured by two sides of the square mesh for Avinet nets (i.e. 30mm is a 15 x 15mm square mesh) or by one side of the square mesh for Ecotone nets (i.e. 16mm is a 16 x 16mm square mesh). The appropriate species for each net is indicated in the product description.

Shelves - The number of shelves refers to the number of rows of pocket on the net and is predominantly determined by net height. Nets with fewer shelves, and deeper pockets, may be more suitable for larger or fast-flying species or in shorter vegetation where a taller net would be easily visible.

Denier and Ply - The denier and ply of a net provide an indication of the thickness, visibility and strength of the net. Denier refers to the weight in grams of 9000 metres of thread. Ply refers to the number of threads of a given denier wound round one another to make the fibre of the net. The smaller the denier and ply, the lighter and thinner the net, e.g. a 70 denier/2 ply net is lighter, less visible, but normally less strong than a 210 denier/3 ply net. Differing materials can also affect net weight, e.g. polyester is heavier than nylon so the same denier net will be finer in polyester than in nylon.



► Avinet

These superior quality nets are manufactured in the USA by Avinet and are available in a wide range of standard mesh sizes, weights and lengths. Avinet also manufacture speciality nets such as the canopy net for catching birds or bats in forest canopies and the Dho-Gaza net (for which a separate licence is required) for trapping raptors. NHBS is the sole UK distributor of Avinet products.

Avinet PQ Mist Net (30mm mesh nylon)

Nets with fine mesh suitable for small sparrow-sized birds. 30mm mesh in 70 denier nylon. 4 shelves. Height 2.6m.

(Prices exclude VAT)	\$	€	£
193850 PQ6 - L 6m	\$105	€93	£68.33
193851 PQ9 - L 9m	\$134	€118	£86.67
193852 PQ12 - L 12m	\$162	€142	£105.00
193853 PQ18 - L 18m	\$196	€172	£127.08

Avinet TQ Mist Net (30mm polyester)

Fine mesh suitable for small sparrow-sized birds. 30mm mesh in 75 denier 2 ply polyester. 4 shelves. Height 2.6m.

(Prices exclude VAT)	\$	€	£
193639 TQ6 - L 6m	\$106	€93	£68.75
193640 TQ9 - L 9m	\$135	€119	£87.50
193641 TQ12 - L 12m	\$167	€147	£108.33
193642 TQ18 - L 18m	\$215	€189	£139.17

Avinet TH Mist Net (38mm polyester)

Small mesh to catch birds from sparrow to jay-sized. 38mm mesh in 50 denier 2 ply polyester. 4 shelves. Height 2.6m.

(Prices exclude VAT)	\$	€	£
193854 TH6 - L 6m	\$102	€89	£65.83
193855 TH9 - L 9m	\$126	€111	£81.67
193856 TH12 - L 12m	\$152	€133	£98.33
193857 TH18 - L 18m	\$188	€166	£122.08

Avinet RT Mist Net (60mm nylon)

Medium mesh suitable for pigeon-sized birds and waders. 60mm mesh in 110 denier 2 ply nylon. 4 shelves. Height 2.6m

(Prices exclude VAT)	\$	€	£
193858 RT6 - L 6m	\$89	€78	£57.49
193859 RT9 - L 9m	\$118	€104	£76.66
193860 RT12 - L 12m	\$141	€124	£91.67
193861 RT18 - L 18m	\$173	€152	£112.08

Avinet CT Mist Net (60mm nylon)

Large mesh for medium-sized passersines, waders, small ducks and small to medium-sized terns. 60mm mesh in 210 denier 2 ply nylon. 4 shelves. Height 2.6m.

(Prices exclude VAT)	\$	€	£
196217 CT6 - L 6m	\$90	€79	£58.33
196218 CT9 - L 9m	\$120	€105	£77.49
195109 CT12 - L 12m	\$141	€124	£91.67
196219 CT18 - L 18m	\$174	€153	£112.50

Avinet DF Mist Net (100mm nylon)

Nets with large mesh for catching small hawks and medium-sized waders (shorebirds). 100mm mesh in 210 denier 4 ply nylon. 5 shelves. Height 3m.

(Prices exclude VAT)	\$	€	£
193645 DF506 - L 6m	\$107	€94	£69.58
193646 DF509 - L 9m	\$132	€116	£85.42
193647 DF512 - L 12m	\$174	€153	£112.50
193648 DF518 - L 18m	\$206	€181	£133.75

Avinet DV Mist Net (127mm nylon)

Nets with the largest mesh, suitable for larger birds such as hawks and ducks. 127mm mesh in 210 denier 4 ply nylon. 4 shelves. Height 2.6m.

(Prices exclude VAT)	\$	€	£
193649 DV6 - L 6m	\$94	€82	£60.83
193650 DV9 - L 9m	\$116	€102	£74.99
193651 DV12 - L 12m	\$142	€125	£92.08
193652 DV18 - L 18m	\$175	€154	£113.33

Avinet Canopy Mist Net

For birds or bats, these nets are oriented sideways to capture in the forest canopy. 38mm mesh in 50 denier 2 ply nylon. 6 sideways shelves. Height 3m.

(Prices exclude VAT)	\$	€	£
193643 CAN-BH6 - L 6m	\$131	€115	£84.58
193644 CAN-BH12 - L 12m	\$177	€156	£115.00

Avinet DG4 Dho-Gaza Net (100mm nylon)

Single panel net for catching raptors. Please note that the use of Dho-Gaza nets requires an additional licence. 100mm mesh in 210 denier 4 ply nylon. No shelves. Height 1.2m.

(Prices exclude VAT)	\$	€	£
193862 DG4X4 - L 1.2m	\$49	€43	£31.66
193863 DG4X6 - L 1.8m	\$57	€50	£37.08

► Ecotone

Excellent quality mist nets, made in Poland. These nets are available in a wide range of mesh sizes, weights and lengths, suitable for a wide range of bird and bat species.

Series 700 Mist Net (16mm Mesh)

Fine nets with a small mesh suitable for small passerines and day catching of storm petrels. 16mm mesh in 70 denier 2 ply nylon. 5 shelves, height 2.5m except 192583 (716/12L) which is 2 shelves, height 1m.

(Prices exclude VAT)	\$	€	£
192583 716/12L - L 12m	\$44	€38	£28.33
187218 716/3 - L 3m	\$31	€27	£19.99
187219 716/6 - L 6m	\$49	€43	£31.66
187181 716/9 - L 9m	\$66	€58	£42.49
187158 716/12 - L 12m	\$80	€71	£52.08
187183 716/15 - L 15m	\$95	€84	£61.66
187221 716/18 - L 18m	\$112	€98	£72.50



Series 700P (Polyester) Mist Net (16mm Mesh)

Small mesh suitable for bats or small passerines. 16mm mesh in 75 denier 2 ply polyester. 5 shelves, height 2.5m.

(Prices exclude VAT)	\$	€	£
187214 716/3P - L 3m	\$41	€36	£26.66
187215 716/6P - L 6m	\$64	€56	£41.66
187185 716/9P - L 9m	\$81	€71	£52.49
187186 716/12P - L 12m	\$103	€90	£66.63
187216 716/15P - L 15m	\$117	€103	£75.83
187217 716/18P - L 18m	\$127	€112	£82.50

Series 700 Mist Net (19mm Mesh)

Small mesh for catching small to medium-sized passerines. 19mm mesh in 70 denier 2 ply nylon. 5 shelves, height 3m.

(Prices exclude VAT)	\$	€	£
187222 719/3 - L 3m	\$35	€30	£22.49
187223 719/6 - L 6m	\$49	€43	£31.66
187224 719/9 - L 9m	\$64	€56	£41.66
187226 719/12 - L 12m	\$78	€69	£50.83
187227 719/15 - L 15m	\$91	€80	£59.16
187228 719/18 - L 18m	\$111	€97	£71.67

Series 700 Mist Net (30mm Mesh)

Medium mesh suitable for bats, medium-sized passerines, waders, small ducks and small to medium-sized terns. 30mm mesh in 70 denier 2 ply nylon. 4 shelves, height 3.2m.

(Prices exclude VAT)	\$	€	£
187229 730/9 - L 9m	\$58	€51	£37.49
187230 730/12 - L 12m	\$71	€62	£45.83
187231 730/15 - L 15m	\$81	€71	£52.50
187232 730/18 - L 18m	\$93	€81	£60

Series 1000 Mist Net (16mm Mesh)

Heavier nets with a small mesh for catching small passerines or storm petrels at night. 16mm mesh in 110 denier 2 ply nylon. 5 shelves, height 2.5m.

(Prices exclude VAT)	\$	€	£
187238 1016/3 - L 3m	\$41	€36	£26.66
187239 1016/6 - L 6m	\$54	€47	£34.99
187187 1016/9 - L 9m	\$68	€60	£44.16
187188 1016/12 - L 12m	\$81	€71	£52.49
187241 1016/15 - L 15m	\$95	€84	£61.66
187242 1016/18 - L 18m	\$111	€97	£71.67

Series 1000 Mist Net (19mm Mesh)

Hard-wearing net for medium-sized passerines, waders, small ducks and small to medium-sized terns. 19mm mesh in 110 denier 2 ply nylon. 5 shelves, height 3m.

(Prices exclude VAT)	\$	€	£
187243 1019/6 - L 6m	\$55	€49	£35.83
187245 1019/9 - L 9m	\$68	€60	£44.16
187247 1019/12 - L 12m	\$78	€69	£50.82
187248 1019/15 - L 15m	\$94	€82	£60.83
187250 1019/18 - L 18m	\$109	€96	£70.83

Series 1000 Mist Net (22mm Mesh)

Suitable for medium to large waders, small ducks, small to medium-sized terns, small owls and small raptors. 22mm mesh in 110 denier 2 ply nylon. 2 shelves, (height 1.6m) or 4 shelves (height 3.2m).

(Prices exclude VAT)	\$	€	£
187251 1022/12L - H 1.6m, L 12m	\$55	€48	£35.42
187254 1022/12 - H 3.2m, L 12m	\$84	€73	£54.16
187255 1022/18L - H 1.6m, L 18m	\$69	€61	£44.99
187257 1022/18 - H 3.2m, L 18m	\$114	€101	£74.17

Series 1000 Mist Net (30mm Mesh)

Heavyweight nets with large mesh for catching owls, small to medium-sized raptors, medium to large-sized waders and medium to large-sized ducks. 30mm mesh in 210 denier 2 ply nylon. 2 shelves (height 1.6m) or 4 shelves (height 3.2m).

(Prices exclude VAT)	\$	€	£
187270 1030/12L - H 1.6m, L 12m	\$49	€43	£31.65
187271 1030/12 - H 3.2m, L 12m	\$73	€64	£47.49
187272 1030/15 - H 3.2m, L 15m	\$89	€78	£57.50
187273 1030/18L - H 1.6m, L 18m	\$62	€54	£39.99
187274 1030/18 - H 3.2m, L 18m	\$100	€88	£64.99

Series 1000 Mist Net (45mm Mesh)

Large mesh suitable for owls, small to medium-sized raptors, medium to large-sized waders and medium to large-sized ducks. 45mm mesh in 110 denier 2 ply nylon. 4 shelves, height 3.4m.

(Prices exclude VAT)	\$	€	£
187275 1045/12 - L 12m	\$78	€69	£50.83
187276 1045/18 - L 18m	\$107	€94	£69.17

Series 2000 Mist Net (19mm Mesh)

Series 2000 mist nets are very strong and durable intended for use in shaded locations or roost catching. The 2019 range is intended for night use catching medium and large-sized waders, small ducks, small and medium-sized terns, small owls and raptors. 19mm mesh in 210 denier 3 ply nylon. 3 shelves, height 2.1m.

(Prices exclude VAT)	\$	€	£
187280 2019/12 - L 12m	\$105	€93	£68.33
187281 2019/18 - L 18m	\$144	€127	£93.33

Series 2000 Mist Net (30mm Mesh)

Heavyweight nets with large mesh for catching owls, small to medium-sized raptors, medium to large-sized waders and medium to large-sized ducks. 30mm mesh in 210 denier 2 ply nylon. 2 shelves (height 1.5m) or 4 shelves (height 3.2m).

(Prices exclude VAT)	\$	€	£
187277 2030/12L - H 1.5m, L 12m	\$66	€58	£42.49
187278 2030/12 - H 3.2m, L 12m	\$104	€92	£67.50
187279 2030/18 - H 3.2m, L 18m	\$143	€125	£92.42

(Prices exclude VAT)	\$	€	£
187282 2045/12 - L 12m	\$90	€79	£58.33
187283 2045/18 - L 18m	\$127	€112	£82.50

Series 2000 Mist Net (70mm mesh)

Strong mist net with extra large mesh suitable for catching owls, small to medium-sized raptors, medium to large-sized waders and medium to large-sized ducks. 70mm mesh in 210 denier 3 ply nylon. 4 shelves, height 3.2m.

(Prices exclude VAT)	\$	€	£
187284 2070/21 - L 21m	\$129	€113	£83.33

Mist Net Repair Kit

Keep your mist nets in good condition with these mist net repair essentials. The mist net repair kit contains a shuttle for weaving (available separately), 3 x 60-yard spools of repair thread, and instructions. The mist net trammel line is a 100 yard reel of braided Dacron polyester for repairing shelf strings. 20lb line - for top and bottom trammels, tether of 25–38mm mesh nets. 30lb line - for top and bottom trammels, tether of 60+ mm mesh nets, side and middle trammels of 25–38mm mesh nets, and short lines of canopy nets. 50lb line - for side and middle trammels of 60+ mm mesh nets. 80lb line - for long lines of canopy nets.

(Prices exclude VAT)	\$	€	£
193379 Mist Net Repair Kit	\$7	€6	£4.58
193380 Mist Net Shuttle	\$4	€3	£2.49
193653 Mist Net Trammel - 20lb	\$12	€10	£7.49
193654 Mist Net Trammel - 30lb	\$12	€11	£7.92
193655 Mist Net Trammel - 50lb	\$13	€11	£8.32
193656 Mist Net Trammel - 80lb	\$17	€15	£10.83

Mist Net Bags

Strong solid-fabric water-resistant nylon bags with sewn-in string cord lock for protective storage of mist nets. The small size is suitable for fine nets measuring 6 or 9m in length and the large size is suitable for nets measuring 12 or 18m in length.



(Prices exclude VAT)	\$	€	£
193661 Small Red	\$7	€6	£4.58
193662 Small Green	\$7	€6	£4.58
193663 Small Blue	\$7	€6	£4.58
193664 Small Sand	\$7	€6	£4.58
193873 Large Red	\$8	€7	£5.42
193874 Large Green	\$8	€7	£5.42
193875 Large Blue	\$8	€7	£5.42
193876 Large Sand	\$8	€7	£5.42
199352 Large White	\$8	€7	£5.42

BIRD RINGING EQUIPMENT

Aluminium Mist Net Poles

These high quality segmented aluminium mist net poles are lightweight, durable and rust-proof with either a black paint (Ecotone) or a green anodised finish (Avinet). Each section has a hole at the top to anchor guy ropes and the Ecotone poles have a second hole for extra rope to raise and lower the net. The working length of the assembled 3-section poles is 2.84m (Ecotone) or 2.7m (Avinet) and the Avinet poles are available in two diameters. Pole sections are available separately or in sets of three (Ecotone) or six sections (Avinet). A pole carrier is available which can carry up to 10 sets of 18mm poles, i.e. 60 sections).



(Prices exclude VAT)	\$	€	£
203063 Ecotone Top Section	\$28	€25	£18.33
203064 Ecotone Bottom Section	\$37	€33	£24.16
203062 Ecotone - 3 sections (One complete pole)	\$77	€68	£49.99
193868 Avinet - 6 sections, 18mm	\$238	€209	£154.17
193869 Avinet - 6 sections, 26mm	\$257	€226	£166.66
194088 Avinet Pole Pounder	\$59	€52	£38.33
193385 Mist Net Pole Carrier	\$30	€27	£19.58



Bird Ringing Circlip Pliers

These de-ringing circlip pliers are essential for bird ringers and should always be carried during ringing sessions in case a metal ring needs to be removed or replaced. They are also useful for fitting plastic or darvic colour rings.

The de-ringing pliers come in two sizes for opening rings of 0–3mm (BTO sizes AA to CC) or 4–5mm (BTO sizes C and D). The smaller (black) circlip pliers have fixed extra-fine tips and the larger (red) pliers have interchangeable tips to provide either fine straight or angled tips.

(Prices exclude VAT)	\$	€	£
199303 Circlip Pliers (0–3mm)	\$32	€28	£20.83
199304 Circlip Pliers (4–5mm)	\$35	€30	£22.49

BIRD HOLDING BAGS



Guy Ropes and Pegs

We stock 2.5mm white braided polypropylene on 100m reels to make your own guy rope lengths and basic tent pegs for anchoring guy ropes when mist netting. The Mist Net Mounting Set includes two 4m lengths of rubber rope and four pegs, enough to anchor two mist net poles whilst protecting the net against overstretching. The set comes in two sizes, 6mm diameter rope for anchoring nets of 3–15m and 8mm diameter rope for anchoring nets of 15–21m length. The Avinet Guy Line Kit contains two 8m lengths of nylon cord, two tent pegs and two line tighteners.



(Prices exclude VAT)	\$	€	£
203099 Guy Cord - 100m reel	\$24	€21	£15.83
203008 Tent Pegs - Pack of 10	\$2	€2	£1.54
187170 Mounting Set (3–15m)	\$26	€23	£16.66
187171 Mounting Set (15–21m)	\$30	€26	£19.16
199292 Guy Line Kit	\$10	€9	£6.66



Bird Ringing Pliers

BESTSELLER

Bird Ringing Pliers for use with split rings - as used by most national birding schemes including BTO, SAFRING, USFWS and ABBBS. The new design features computer-engineered holes, ensuring even and complete closure of rings. Made of stainless steel with soft rubber easy-grip coating on the handles. Available in two sizes to close rings up to 8mm in diameter (small, BTO sizes AA to E) or 22mm (large, BTO sizes F to L). Supplied with lanyard.

(Prices exclude VAT)	\$	€	£
174622 5 Hole Pliers	\$44	€38	£28.32
174623 2 Hole Pliers	\$45	€40	£29.16

Cotton Bird Holding Bags

Fabric bag with circular bottom to aid in removing birds, drawstring and cord lock.



(Prices exclude VAT)	\$	€	£
193870 Red Cotton Holding Bag	\$8	€7	£5.42
193871 White Cotton Holding Bag	\$8	€7	£5.42
193872 Blue Cotton Holding Bag	\$8	€7	£5.42

Mesh Holding Bags

Soft laundry-bag-type mesh fabric with drawstring and cord lock. Available with solid fabric bottom.



(Prices exclude VAT)	\$	€	£
193384 Mesh Holding Bag	\$10	€8	£6.25
193383 Solid Bottom Holding Bag	\$10	€8	£6.25



BESTSELLER

Telescopic Mist Net Pole

This unique Telescopic Mist Net Pole is designed for use with mist nets and has a lightweight telescoping construction for easy transportation and operation. It is strong enough to support 20m+ nets and the weight of heavy birds. All surfaces are finished in matt black and the bottom section has a spike for secure anchoring. The pole can be easily retracted during use to remove birds or bats from the net. They are made from non-conductive fibreglass and measure 3.46m when extended and 96cm when folded. Each pole weighs 980g. The Ecotone Mist Net Pole Bag will carry four of the telescopic poles.

(Prices exclude VAT)	\$	€	£
212965 Telescopic Pole x 1	\$35	€30	£22.49
187286 Mist Net Pole Bag	\$23	€20	£14.99



Bird Holding Bags

Double-seamed breathable cotton bags with dual-pull drawstring system.

(Prices exclude VAT)	\$	€	£
176554 Holding Bag - Small	\$3	€2	£1.66
176555 Holding Bag - Large	\$4	€3	£2.49

Ecotone Bird Holding Bags

Simple bag in lightweight cotton with drawstring and toggle. Available in three sizes: small (yellow), medium (red) and large (turquoise). Sold in packs of 10.



(Prices exclude VAT)	\$	€	£
209370 Small	\$18	€16	£11.66
209371 Medium	\$24	€21	£15.83
209372 Large	\$30	€26	£19.16

BESTSELLER

High Flier Mist Net Support System

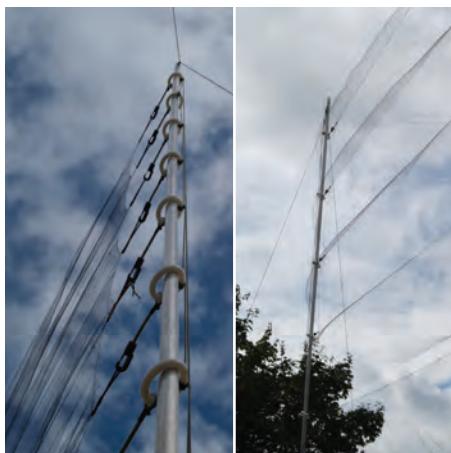
The High Flier Mist Net Support System allows you to operate one, two or three mist nets at any height from 450mm above the ground up to a maximum height of seven metres. This helps to improve catch rates at existing sites and can also make mist netting possible in locations that weren't previously viable. Constructed from 1 1/4" aluminium poles which are strong and lightweight, the system is easy to erect; with practice two people can assemble it in around 20 minutes. The strong guy ropes provided clip quickly onto the poles and if required, the system can be left in place indefinitely.

It is compatible with most standard mist nets which are clipped onto the sliding net carriers. A shock cord link keeps tension correct, preventing net sag, and helps with minor variations in net length. A pulley system lets you lower one net at a time to a height which is comfortable for extraction.

The High Flier can be carried and stored in the strong carrying bag (included). When packed away it measures 2.6m in length and weighs less than 12kg. Everything required to set up the system, including guy ropes and pegs, are included with the High Flier.

Available in three sizes which are suitable for one, two or three mist nets.

(Prices exclude VAT)	\$	€	£
219193 Single Net	\$752	€661	£487.50
219194 Double Net	\$817	€718	£529.17
219195 Triple Net	\$881	€774	£570.83



Digital Calipers

Hardwearing stainless steel/polycarbonate digital calipers. These calipers are suitable for taking measurements from small mammals, birds and reptiles and have an LCD display for easy reading of measurements. They can display measurements in mm or inches and are supplied with a vinyl pouch. Two dust and water resistant (to IP54) versions are also available to measure up to 150 or 300mm, allowing field measurements in more difficult conditions.

(Prices exclude VAT)	\$	€	£
180586 Digital Caliper	\$37	€33	£24.16
180587 Water Resistant (150mm)	\$93	€81	£59.99
199008 Water Resistant (300mm)	\$167	€147	£108.33

Pesola MS500 Electronic Scale

Professional digital pocket scale with raised platform, four different weighing units, precise measuring even at the edge of the platform and overload resistance. Stable hinged cover, protecting the whole scale from dirt and damage.



Quick user guide inside the cover. Three year warranty.

(Prices exclude VAT)	\$	€	£
176700 Pesola MS500	\$71	€63	£46.25

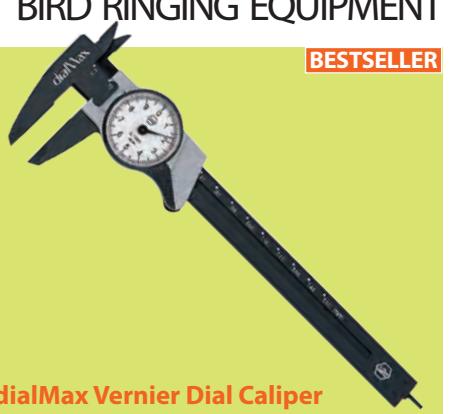
(Prices exclude VAT)	\$	€	£
181849 Tail Rule	\$3	€2	£1.66
193866 150mm R-Hand	\$31	€27	£19.99
193864 150mm L-Hand	\$31	€27	£19.99
193867 300mm R-Hand	\$54	€47	£34.99
193865 300mm L-Hand	\$54	€47	£34.99
193378 Economy Wing Rule	\$13	€11	£8.29

Tail Rule



Clear plastic 130mm rule for measuring tail length.

(Prices exclude VAT)	\$	€	£
181849 Tail Rule	\$3	€2	£1.66



dialMax Vernier Dial Caliper

Lightweight 150mm analogue vernier dial calipers suitable for taking measurements from small mammals, birds and reptiles, with a 0.1mm scale. Particularly useful for tarsus and head-bill measurements during bird ringing. These durable calipers are manufactured from non-metallic material with a 50% fiberglass content. They can provide inside, outside and depth measurements with the plastic rod. The impact-resistant dial can be recalibrated to zero.

(Prices exclude VAT)	\$	€	£
202858 Vernier Dial Caliper	\$33	€29	£21.66

Pesola Bird Cone (5 Pack)

Suitable for repeated use weighing birds or other small animals with Pesola spring scales. The white plastic cone gently holds the bird. No sharp edges and can be cut to size, packs flat for transportation.

(Prices exclude VAT)	\$	€	£
176699 Pesola Bird Cones	\$27	€24	£17.49



Mist Net Strand Cutter

This quick unpick mist net strand cutter is crucial for mist netting sessions when individual strands of net may need to be cut to ensure safe extraction of birds or bats. A safer alternative to scissors. Colours may vary.

(Prices exclude VAT)	\$	€	£
200761 Mist Net Strand Cutter	\$1	€1	£0.63



Pesola Spring Balances

Precision-engineered Swiss balances for accurate measurement of bird mass. Supplied either with a clip or hook for attachment to cones or bird bags. Made from durable anodised aluminium tubes.

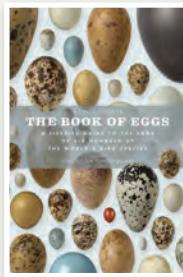
(Prices exclude VAT)	\$	€	£
193757 Pesola MicroLine 30g	\$48	€42	£31.25
193758 Pesola MicroLine 100g	\$48	€42	£31.25
185606 Pesola MedioLine 300g	\$59	€52	£38.29
196727 Pesola MedioLine 2.5kg	\$62	€55	£40.42

ORNITHOLOGY BOOKS

NATURAL HISTORY

The Book of Eggs: A Lifesize Guide to the Eggs of Six Hundred of the World's Bird Species

Mark Hauber (2014)



The Book of Eggs explores 600 examples at actual size, alongside pattern details, clutch images, breeding range maps, and engravings of all the birds. A table of field-guide information identifies order, family, breeding range, nesting habitat, nest characteristics, and conservation status.

211070 HBK

\$46 €41 £29.99

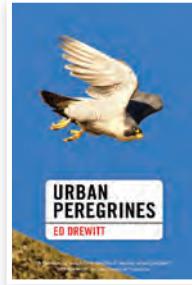
Urban Peregrines

Ed Drewitt (2014)

This beautifully illustrated book is the first in-depth focus on the lives of Peregrines in towns and cities. In words and stunning photographs, Ed Drewitt reveals the latest information on Peregrine behavior including how they are adapting to, and taking advantage of, the urban environment.

209906 HBK

\$39 €34 £24.99

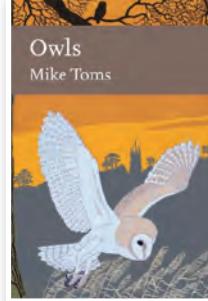
**Owls: A Natural History of the British and Irish Species**

Mike Toms (2014)

Owls have been a source of inspiration to writers, artists, historians and naturalists alike. In a much-anticipated volume on one of Britain's most fascinating group of birds, Mike Toms draws on a wealth of experience and research, providing a comprehensive natural history of British owls.

192666 PBK

\$43 €38 £27.99

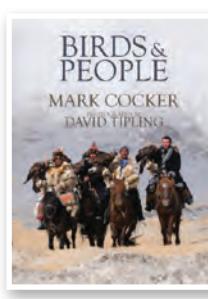
**Birds and People**

Mark Cocker (2014)

Birds and People explores and celebrates this extraordinary relationship. Part natural history and part cultural study, it describes and maps the entire spectrum of our engagements with birds, drawing in themes of history, literature, art, cuisine, language, lore, politics and the environment.

202711 HBK

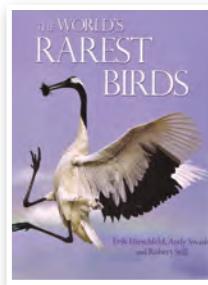
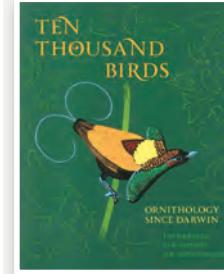
\$62 €54 £39.99

**The World's Rarest Birds**Erik Hirschfeld *et al.* (2013)

The World's Rarest Birds is divided into seven regional sections. Each section includes an illustrated directory to the bird species under threat there, and gives a concise description of distribution, status, population, key threats, and conservation needs.

198783 HBK

\$49 €43 £31.46

**Ten Thousand Birds: Ornithology Since Darwin**Tim Birkhead *et al.* (2014)

Ten Thousand Birds provides a thoroughly engaging and authoritative history of modern ornithology, tracing how the study of birds has been shaped by a succession of visionary and often-controversial personalities, and by the unique social and scientific contexts in which these extraordinary individuals worked.

207470 HBK

\$46 €41 £29.95

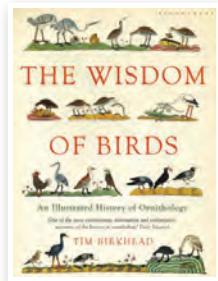
The Wisdom of Birds: An Illustrated History of Ornithology

Tim Birkhead (2011)

In The Wisdom of Birds, Birkhead takes the reader on a journey that not only tells us about the extraordinary lives of birds - from conception and egg, through territory and song, to migration and fully fledged breeder - but also shows how, over centuries, we have overcome superstition and untested 'truths' to know what we know, and how recent some of that knowledge is.

181019 PBK

\$31 €27 £19.99

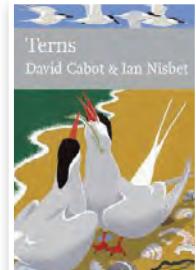
**Terns**

David Cabot and Ian Nisbet (2013)

Drawing on a wealth of new information and research, the authors focus on migrations, food and feeding ecology as well as breeding biology and behaviour. Perhaps most importantly, they highlight recent conservation issues and prospects, and what this means for the future of terns.

191130 PBK

\$43 €38 £27.99

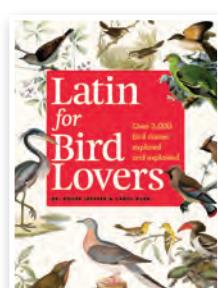
**Latin for Bird Lovers: Over 3,000 Bird Names Explored and Explained**

Roger Lederer and Carol Burr (2014)

Latin for Bird Lovers is an accessible, informative, and beautifully illustrated guide to the mysteries of ornithological Latin. It reveals the meaning, origin, and pronunciation of Latin binomials, helping readers to get to grips with the highly useful information that these names contain, and also to communicate more effectively with other birders.

212824 HBK

\$23 €20 £14.99

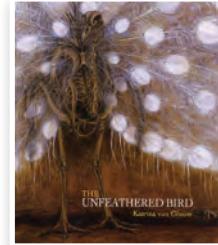
**The Unfeathered Bird**

Katrina van Grouw (2012)

With over 300 stunning drawings depicting 200 species. The birds are shown in lifelike positions and engaged in behavior typical of the species: an underwater view of the skeleton of a swimming loon, the musculature of a porpoising penguin, and an unfeathered sparrowhawk plucking its prey.

198784 HBK

\$54 €47 £34.95



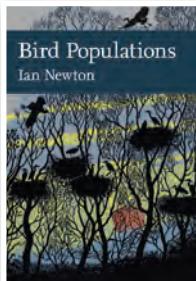
ECOLOGY & CONSERVATION

Bird Populations

Ian Newton (2013)

In *Bird Populations*, the latest addition to the New Naturalist series, Ian Newton explores bird populations and what causes their fluctuation – food supplies, competitors, predators, parasites and human activity.

199404 PBK \$43 €38 £27.99

**Birds and Habitat: Relationships in Changing Landscapes**

Robert Fuller (2012)

Birds and Habitat provides the first major review of avian habitat selection in over twenty years. It offers a synthesis of concepts, patterns and issues that will interest students, researchers and conservation practitioners. Spatial scales ranging from landscape to habitat patch are covered, and examples of responses to habitat change are examined.

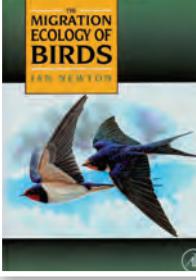
199328 PBK \$69 €61 £44.99

**The Migration Ecology of Birds**

Ian Newton (2007)

The Migration Ecology of Birds presents an up-to-date, detailed and thorough review. The emphasis throughout is on ecological aspects: on the different types of bird movements, including dispersal and nomadism, and how they relate to food supplies and other external conditions.

169548 HBK \$154 €136 £99.99

**Birds and Climate Change**

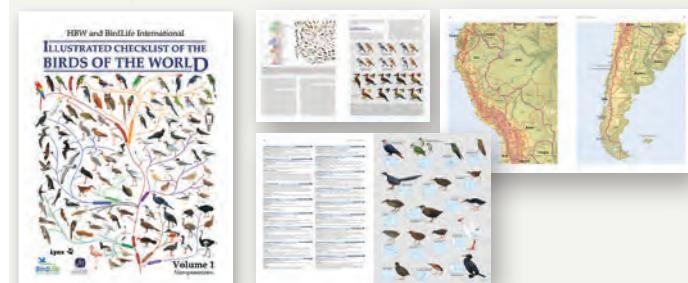
James Pearce-Higgins and Rhys Green (2014)

Birds and Climate Change begins with a critical review of the existing impacts of climate change on birds, including changes in the timing of migration and breeding and effects on bird populations around the world. The second part considers how conservationists can assess potential future impacts, quantifying how extinction risk is linked to the magnitude of global change and synthesising the evidence in support of likely conservation responses.

208970 PBK \$62 €54 £39.99



DISTRIBUTION

HBW and Birdlife International Illustrated Checklist of the Birds of the World, Volume 1Josep Del Hoyo *et al.* (2014)

The first ever Illustrated Checklist of the Birds of the World. Includes a complete checklist whose taxonomy incorporates the most up-to-date information and an exhaustive methodology as well as illustrations and distribution maps for every bird species in the world.

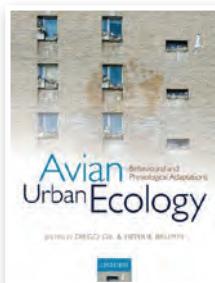
204303 HBK \$239 €210 £155.00

Avian Urban Ecology: Behavioural and Physiological Adaptations

Ed. by Diego Gil and Henrik Brumm (2013)

This accessible text focuses on the behavioural and physiological mechanisms which facilitate adaptation and on the evolutionary process that ensues. It discusses topics such as acoustics, reproductive cues, disease, and artificial feeding, and includes a series of case studies illustrating cutting edge research on these areas.

207689 PBK \$58 €51 £37.50

**Interspecific Competition in Birds**

André Dhondt (2011)

Competition, predation, and mutualism all exert powerful selection pressures and shape communities. However, the question of how important interspecific competition in nature really is remains controversial and unresolved. This book provides a critical and exhaustive review of the topic.

192099 PBK \$57 €50 £36.99

**Facing Extinction: The World's Rarest Birds and the Race to Save Them**Paul Donald *et al.* (2013)

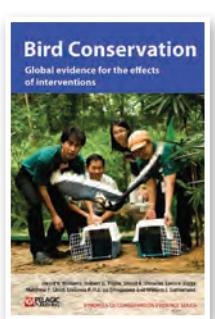
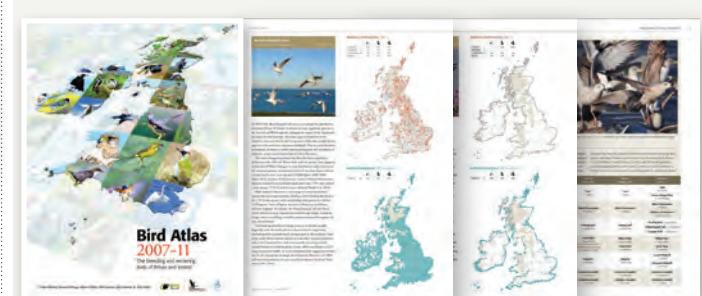
Facing Extinction includes chapters on the nature of rarity, how and why birds become rare, and why island species are so vulnerable to human impact. Attention then focuses on efforts to save the world's rarest birds, showing that it is rarely too late to intervene to prevent extinction.

202325 PBK \$39 €34 £24.99

**Bird Conservation**David Williams *et al.* (2013)

Bird Conservation: Evidence for the Effects of Interventions summarises studies captured by the Conservation Evidence project, where that intervention has been tested and its effects on birds quantified. The result is a thorough guide to what is known, or not known, about the effectiveness of bird conservation actions throughout the world.

203496 PBK \$54 €47 £34.99

**Bird Atlas 2007–11: The Breeding and Wintering Birds of Britain and Ireland**Dawn Balmer *et al.* (2013)

Bird Atlas 2007–11 is the most complete and comprehensive overview of bird distribution and change in Britain and Ireland, and contains over 1300 maps describing patterns of distribution, abundance and change for nearly 300 species.

207225 HBK \$108 €95 £69.99

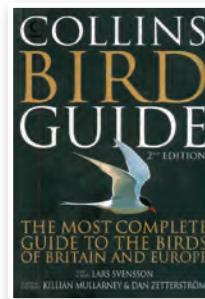
ORNITHOLOGY BOOKS

FIELD GUIDES : UK

Collins Bird Guide: The Most Complete Guide to the Birds of Britain and Europe
Lars Svensson (2010)

Written by one of Europe's leading ornithologists and illustrated by two of the world's finest bird illustrators – Killian Mullarney and Dan Zetterström (with a translation by David Christie). Covering Britain and Europe, the book provides all the information needed to identify any species at any time of year, with detailed text on size, habitat, range, identification and voice.

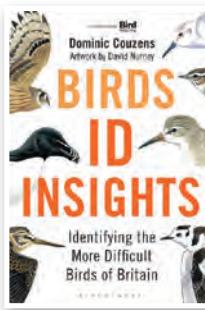
170498 PBK \$31 €27 £19.99

**Birds: ID Insights: Identifying the More Difficult Birds of Britain**

Dominic Couzens and David Nurney (2014)

The perfect field guide for any birder. Its unique layout, comparing the plumages of similar pairs and groups of species, makes it ideal for getting to grips with the more trick-to-identify birds found in Britain and the rest of Europe. And its handy pocket size is practical for taking out into the field.

210679 HBK \$26 €23 £16.99

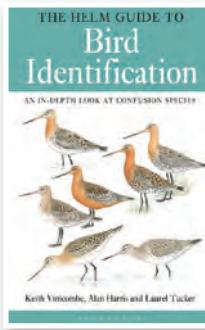


ADVANCED IDENTIFICATION GUIDES

The Helm Guide to Bird Identification: An In-Depth Look at Confusion Species
Keith Vinicombe (2014)

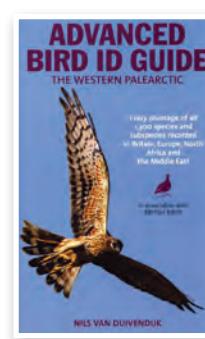
The Helm Guide to Bird Identification covers difficult identification issues by looking at tricky species pairs or groups of birds, and comparing and contrasting their respective features. Designed as a field companion, it supplements the standard field guides and provides much additional information.

208922 PBK \$39 €34 £24.99

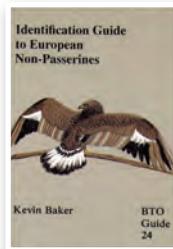
**Advanced Bird ID Guide: The Western Palearctic**
Nils Van Duijendijk (2014)

This innovative guide is an essential addition to the library of any serious birder. It accurately describes every key detail of every plumage of all 900 species that have ever occurred in Europe, North Africa and the Middle East – the region known to all birdwatchers as the Western Palearctic. Its level of detail is unprecedented for a book of this size.

183860 PBK 14.99 €20 £14.99

**Identification Guide to European Non-Passerines**
Kevin Baker (1993)

A major guide, which complements Lars Svensson's Identification Guide to European Passerines. It covers 119 species, with descriptions of ageing and sexing methods, moult, biometrics and racial differences, making it an invaluable tool for ringers and museum workers, as well as keen birders.



29342 PBK \$21 €18 £13.49

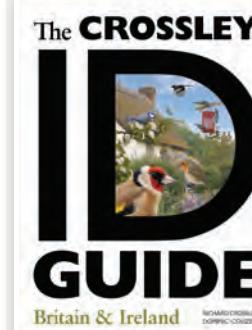
Feathers: Identification for Bird Conservation
Marian Cieslak and Boleslaw Dul (2006)

Feathers: Identification for Bird Conservation presents the feathers of 60 species of bird, of which 38 are included in Annex I of the EU's Birds Directive. With details on moult, feather morphology, research and feather identification.

165379 HBK

The Crossley ID Guide: Britain & Ireland

Richard Crossley and Dominic Couzens (2013)



The Crossley ID Guide: Britain & Ireland's attractive pages provide a real-life approach to bird identification. Beautiful, in-focus scenes present birds in various plumages and in lifelike poses set in identifiable British and Irish habitats. The plates also illustrate how a bird's appearance changes with distance.

205538 PBK

\$26 €23 £16.95

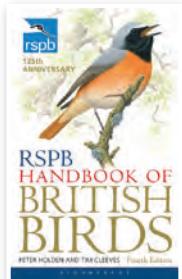
RSPB Handbook of British Birds

Peter Holden and Tim Cleeves (2014)

This unique guide provides a 'biography' of each of the 280 commonest British bird species. It covers all aspects of field identification, using illustrations from the highly acclaimed Handbook of Bird Identification to show all common plumage forms.

210303 PBK

\$15 €14 £9.99

**Identification Guide to European Passerines**

Lars Svensson (2006)

The ringer's bible, completely revised and updated to include 229 species, with valid subspecies, of passerines regularly occurring in Europe, plus some rare vagrants. Data include wing formulae, measurements, plumage, and other criteria for determining sex and age.

889 PBK

\$31 €27 £19.99

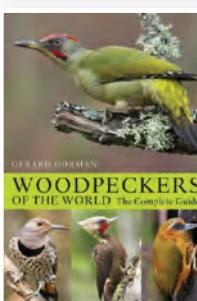
**Woodpeckers of the World: The Complete Guide**

Gerard Gorman (2014)

Woodpeckers of the World is the first definitive guide to woodpeckers; it covers all 239 species. Detailed text looks at the biology of the birds, with particular emphasis on field identification, along with voice, habitat, status, racial variation and distribution.

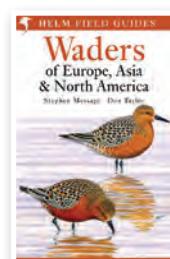
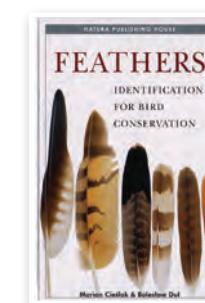
210311 HBK

\$54 €47 £34.99

**Waders of Europe, Asia and North America**

Don Taylor and Stephen Message (2005)

This field guide offers a complete identification reference to all of the sandpipers, plovers, stints and other waders found in Europe, Asia and North America. Plates (by Stephen Message, a much admired artist) show birds at rest and in flight, in every plumage variant likely to be encountered in the region.



152435 PBK

\$46 €41 £29.99

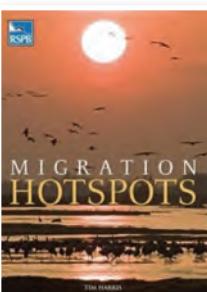
FIELD GUIDES: INTERNATIONAL

Migration Hotspots: The World's Best Bird Migration Sites

Tim Harris (2013)

Migration Hotspots: The World's Best Bird Migration Sites covers each of the world's major avian flyways and features stunning photography throughout. The geographical reasons for the importance of each hotspot are explained, with a summary of the different birds that pass through and the best times of year to see them.

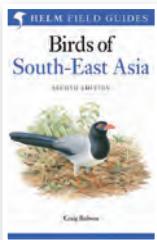
202483 PBK \$39 €34 £24.99

**Birds Of South-East Asia**

Craig Robson (2014)

This award-winning book was fully updated in 2008 to include 76 new species for the region. This comprehensive field guide to the birds of South-East Asia covers all of the 1327 species recorded in the region and each has been fully illustrated.

219460 PBK \$39 €34 £24.99

**The North American Bird Guide**

David Allen Sibley (2014)

This important work brings the genius of David Sibley to the world once again in a thoroughly updated and expanded volume that every birder must own. It is set to cement its reputation as the North American equivalent of the Collins Bird Guide.

210310 PBK \$39 €34 £24.99



SURVEY, MONITORING & RINGING

Raptors: A Field Guide for Surveys and MonitoringJon Hardey *et al.* (2013)

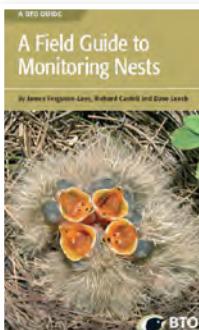
This is the Third Edition of the extremely popular and bestselling field guide to surveys and monitoring of raptors. *Raptors: A Field Guide for Surveys and Monitoring* aims to promote best practice for fieldwork, drawing on the knowledge and experience of more than 300 raptor specialists.

209822 PBK \$29 €26 £18.90

A Field Guide to Monitoring NestsJames Ferguson-Lees *et al.* (2011)

Written and illustrated by experts, this richly illustrated book is an indispensable field guide, containing a wealth of information for 146 British and Irish species. There are introductory sections on nest-monitoring techniques, nest identification, legislation, the BTO Nest Record Scheme and tips on improving your nest-finding skills.

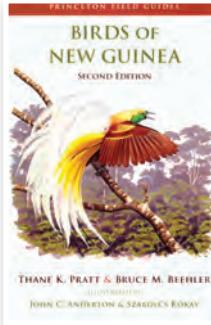
189706 PBK \$35 €30 £22.49

**Birds of New Guinea**

Thane Pratt and Bruce Beehler (2014)

Birds of New Guinea is the only guide to cover all 780 bird species reported in the area, including 366 endemics. Expanding its coverage with 111 vibrant color plates – twice as many as the first edition – and the addition of 635 range maps, *The Birds of New Guinea* also contains updated species accounts with new information about identification, voice, habits, and range.

153459 PBK \$54 €47 £34.95

**Hummingbirds: A Life-Size Guide to Every Species**Michael Fogden *et al.* (2014)

Hummingbirds presents every species, arranged taxonomically, with over 300 birds shown in dazzling, life-size, cut-out photography. Concise descriptions, written by two of the world's leading experts, are digitally enhanced through QR-code links to movie footage of flight, sound, and behaviour.

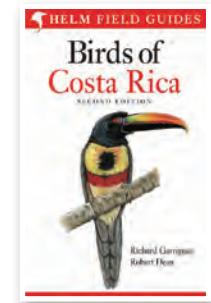
211065 PBK \$31 €27 £19.99

**Birds of Costa Rica**

Richard Garrigues and Robert Dean (2014)

This is the one compact, portable, and user-friendly field guide the novice or experienced birder needs to identify birds in the field in the diverse habitats found in Costa Rica. It features descriptions and illustrations of all 903 species definitely known from Costa Rica, including pelagics and species regular to Cocos Island.

216904 PBK \$39 €34 £24.99

**Moult, Ageing and Sexing of Finnish Owls / Suomen Pöllöjen Sulksadon, Iän ja Sukupuolen Määritysopas**

Heimo Mikkola and Jouni Lamminmäki (2014)



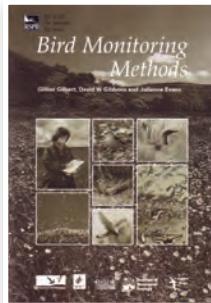
In *Moult, Ageing and Sexing of Finnish Owls* the authors explore how colour and moult patterns can be used for ageing owls in the field. Includes measurements and colour differences to be used in sexing all 13 European and Finnish owl species.

218042 PBK \$31 €27 £19.99

Bird Monitoring Methods: A Manual of Techniques for Key UK SpeciesGillian Gilbert *et al.* (2012)

Bird Monitoring Methods: A Manual of Techniques for Key UK Species is a practical guide to surveying and monitoring techniques for use in the breeding season – in assessing breeding success as well as population levels – and during the winter. It gives instructions for more than 120 UK bird species, mainly those of conservation concern.

196444 PBK \$54 €47 £34.99



► TrailMaster

The world leader in infrared trail monitoring. TrailMaster monitoring systems are used by researchers, biologists and photographers. TrailMasters can be used to collect data on animal movements within a specific area and can also be used to trigger a camera. The TrailMasters are available as either an passive or active system. Whichever system you chose, you will also need a TrailMaster Camera Cable to link your camera to the trail monitor. Please see www.nhbs.com for details of which cables can be used with different camera models.



TRAILMASTER ACTIVE SYSTEM INFRARED TRAIL MONITORS

The active trail monitors are two piece infrared trail monitoring systems. An infrared beam is passed from a transmitter to a receiver, when this beam is broken the transmitter will record an event.

WHICH ACTIVE SYSTEM IS BEST FOR YOU?

TM1550 - The standard model has no additional features and consists of the transmitter and the receiver. It is also available with an increased maximum events capacity through the 4k, 8k and 16k versions which can record 4000, 8000 and 16000 events respectively rather than the standard 1000.

TM1550-BAT - The BAT version has a special transmitter which can detect bats and other fast moving animals. This allows the user to select the transmitter pulse spacing, which is the time that the receiver would need to be blocked to record an event. On the standard model this is fixed at 0.048 seconds, the BAT transmitter allows the user to select from one of four options: 0.096, 0.048, 0.012 and 0.006 seconds to ensure even the fastest moving animals will be recorded. The BAT also has a reduced range control which allows the transmitter and receiver to be placed much closer together than the standard model. This is particularly useful to monitor a cave opening for example. If a bat were to fly through the beam of the standard version when the transmitter and receiver were located close together the bats wings would not block the beam due to their translucency. However, with the BAT version the sensitivity of the receiver has been altered meaning that at short ranges a bat passing through would also trigger the system.

TM1550-PS - The PS model has additional camera controls. With the PS the user can set the length of the camera activation signal. The PS system also allows users to determine both how many consecutive photos to take when an event occurs and the delay between each photo. Finally the user can determine whether or not additional photos will be taken if the IR beam is no longer broken when it is



time to take the next photo. For example, it is possible for the system to get the camera to take as many photos as possible for 1.5 seconds after an event occurs.

TM1550-PS-BAT - The TM1550-PS-BAT includes all the additional camera settings from the TM1550-PS with the ability to set the transmitter pulse spacing and reduced range control from the TM1550BAT. This model is also available with a maximum of 16000 events rather than the standard 1000.

	\$	€	£
193701 TM1550	\$328	€288	£212.50
193937 TM1550-4k	\$450	€396	£291.67
193938 TM1550-8k	\$513	€451	£332.50
193939 TM1550-16k	\$559	€492	£362.50
193940 TM1550-BAT	\$469	€412	£304.17
193941 TM1550-PS	\$458	€402	£296.67
193942 TM1550-PS-BAT	\$482	€424	£312.50
193428 TM1550-16k-PS-BAT	\$642	€564	£415.83



TrailMaster Passive System Infrared Trail Monitors

The Passive Trail Monitors detect a combination of body heat and motion within a specific area. The sensor has a range of up to 20m within a 150° wide area. As an animal moves into the detection area the TrailMaster will register an event with a time and date stamp. The sensor divides the detection area into multiple zones and can be set so that more than one zone has to be broken before an event is registered. This makes the system less sensitive to small animals and moving foliage.

The TM300 is a stand-alone system where event data is read manually from the unit. The TM550 is more flexible allowing a camera or data collector to be connected.

	\$	€	£
193906 TM300 Passive Infrared Monitor	\$165	€145	£106.66
193905 TM550 Passive Infrared Monitor	\$238	€209	£153.95
193907 TM550-4k Passive Infrared Monitor	\$269	€237	£174.43
193908 TM550-8k Passive Infrared Monitor	\$384	€338	£249.17
193414 TM700v	\$579	€509	£375.06
193409 TM700v_RT	\$706	€621	£457.87



BUYERS GUIDE ▶ 2015

► TriggerSmart

TriggerSmart is an innovative way to trigger your camera using motion, light and sound. The infrared motion sensors are ideal for use in wildlife photography and the modular design allows you to add more sensors to create a "sweet spot" to help you get the perfect photo. Whichever system you chose, you will also need a TriggerSmart Camera Cable to link your camera to the trail monitor. Please see www.nhbs.com for details of which cables can be used with different camera models.

TriggerSmart Wildlife Kit

The Wildlife Kit is used in conjunction with the TriggerSmart Kit to improve the kit's functionality for wildlife photography. The kit includes stake pods and weather proof covers for the sensors making them more suitable for outdoor use. It also includes two additional sensors which can be used to set up an infrared beam to trigger a camera. The kit also includes an alignment aid to help set up the infrared sensors, two sensor cables, two cable hooks and a 2 degree baffle to narrow the beam for even more control.

(Prices exclude VAT)

\$ € £

221762 Wildlife Kit

\$199 €175 £129.17

TriggerScout PIR Kit

The TriggerScout PIR Kit is a compact passive infrared sensor device that can be used to capture images by detecting movement and heat. The sensor has a range of up to 20m, depending on the ambient conditions, and a cone of sensitivity of 10° or 6° when used with the provided baffle. When a warm body moves into this detection zone the PIR will activate and trigger a camera or the TriggerSmart system. The TriggerScout PIR sensor can be connected directly to a camera using the appropriate cable, a 3.5mm to 2.5mm jack cable is supplied. The PIR sensor has a standard 1/4" fitting for mounting, and the kit includes a stakepod, which can be deployed in soft ground.

(Prices exclude VAT)

\$ € £

221308 TriggerScout PIR Kit

\$153 €134 £99.00



TriggerSmart Kit

The TriggerSmart Kit comes with everything you need to start capturing images. It comes with two multi-mode sensors which can be used together to create an infrared beam to detect motion or individually to detect sound or flashes of light respectively. The kit also includes a control box which allows you to adjust a range of settings such as sensitivity and delay time. Cables to connect the sensors to the control box are included as is a trigger cable to connect to a camera using a 2.5mm jack.

(Prices exclude VAT)

221695 TriggerSmart Kit

\$306 €269 £198.33



TriggerBeam Pro Kit

The TriggerBeam Pro Kit is a long range infra red beam device that works by triggering a camera when the infrared beam is broken. The infrared beam has a range of up to 30m and can be connected directly to a camera using the appropriate cable. The kit can also be used in conjunction with the MCT-1 control box which allows the user to control the sensitivity of the sensors and delay the trigger of the connected camera. The infrared sensor and receiver have a standard 1/4" fitting for mounting, and the kit includes two stakepods, which can be deployed in soft ground.

(Prices exclude VAT)

\$ € £

221523 TriggerBeam Pro Kit

\$153 €134 £99.00



BUYERS GUIDE ▶ 2015

CHOOSING AND USING A HIDE

To take really great wildlife pictures you will need to choose the right site and then remain well hidden until your subject appears. Photography hides can provide cover and a little comfort during these long waits. There are three basic types of hide - chair hides, bag hides, and pop-up hides. Chair hides have an integrated seat and so are a little heavier in total but more comfortable than most other hides. Pop-up hides are the most spacious and provide excellent 360° views but you will need to carry a chair or padded seat to be comfortable. Bag hides are the lightest weight option but can restrict movement and again you may need to carry a chair or seat for comfort.



Stealth Gear Chair Hide

- Heavy duty waterproof hide
- Comes with carry backpack

The Stealth Gear Chair Hides integrate a hide and seat but are lightweight and very simple to assemble. Get closer to your wildlife subject and be comfortable and protected from the elements. The hides make use of the "Camo-Tree" camouflage pattern designed for UK countryside and has a rear window and internal storage pockets. Available in one and two person versions. One man hide: 110 x 80 x 135cm (L x W x H), 5.3kg. Two man hide: 155 x 132 x 152cm (L x W x H), 8kg.

(Prices exclude VAT)	\$	€	£
180117 One Man Hide	\$154	€136	£99.99
180118 Two Man Hide	\$180	€158	£116.66



Stealth Gear Square Hide

- Pop-up hide
- 360° viewing

Gives you 360° viewing from the four large windows which also have a mesh camouflage layer. Lightweight and automatically folds out making it very simple to assemble. Large enough for one photographer to work comfortably. Made from shower-proof polyester and comes with tent poles, pegs and a carry backpack.

(Prices exclude VAT)	\$	€	£
195580 Square Hide	\$167	€147	£108.29



BESTSELLER

Ground Mat

- Reversible pattern
- Measures 26cm x 36cm

This comfortable waterproof mat has a material cover over closed cell foam. The top features the Advantage camouflage pattern whilst the bottom is waterproof olive green nylon. The mat is super lightweight (only 80g) and when not in use can be rolled up or used as a rucksack liner. A Velcro strap is included for easy storage. Unrolled, the mat is 26cm by 36cm.

(Prices exclude VAT)	\$	€	£
183498 Ground Mat	\$16	€14	£10.42



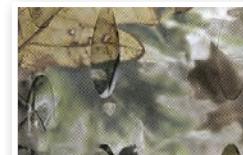
Double Photographer's Bean Bag

- Made to last with reinforced corners and double stitching
- Velcro opening for easy filling

The double bean bag is designed to give extra support and better grip, and is ideal for draping over car doors, rocks, window sills, etc.

The double bean bag is made up of two bean bags joined together side by side and off centre. Made in the Advantage leaf pattern the bean bag is made to last with reinforced corners and double stitching. The bag comes unfilled and includes two joined bags each measuring 27 x 21cm. Also available as a Single Bean Bag of 25 x 19cm.

(Prices exclude VAT)	\$	€	£
183500 Double Bean Bag	\$41	€36	£26.66
183499 Single Bean Bag	\$24	€21	£15.82



Leaf Scrim Net

- Measures 3m x 1.4m
- Lightweight

The Leaf Scrim net is constructed from soft, lightweight material and printed with an all-purpose green pattern with leaf cuts to give a 3D natural look and movement. It is quick drying and compact, ideal for covering yourself or equipment. Size: 3m x 1.4m

(Prices exclude VAT)	\$	€	£
202418 Leaf Scrim Net	\$45	€40	£29.13

Binoculars & Spotting Scopes. See page 66-72



Bag Hide

- Advantage Timber camouflage
- No poles or pegs

Well camouflaged throw over bag hides to cover you, your camera, tripod & seat. The lightweight Bag Hide weighs just 450g and the waterproof Medium Weight Hide weighs 1.2kg. Both have one opening window with insect and scrim net.

(Prices exclude VAT)	\$	€	£
183546 Lightweight	\$108	€95	£69.99
183547 Medium Weight	\$113	€99	£73.32

All-In-One Camera and Lens Cover

- Protection from heat, cold, dust and water
- Camouflage Outer layer



This popular camera and lens cover is perfect for protecting your valuable equipment. It features a double layer reversible cover of waterproofed poly-cotton. On one side is an Advantage camouflage pattern providing perfect cover, whilst on the other side the waterproof olive PU nylon will keep your camera and lens dry. Features an elasticated lens opening and draw cord back and a velcro slit to accommodate a tripod.

(Prices exclude VAT)	\$	€	£
183548 Size 1	\$35	€30	£22.49
183549 Size 1.5	\$64	€56	£41.66
183550 Size 2	\$82	€72	£53.32
183551 Size 2.5	\$100	€88	£64.99
183552 Size 3	\$114	€101	£74.16

OP/TECH Bino/Cam Harness

- For use with cameras and binoculars
- Quickly snaps into place

The Bino/Cam Harness self-adjusts to comfortably balance gear while in use or in the idle position against the body. The unique loop attachment system enables the harness to quickly snap in place and the binoculars to slide along the strap for use. The elastic version allows your camera or binoculars to be held tighter against the body while still allowing the camera or binoculars to be brought up to the eyes for use.



(Prices exclude VAT)	\$	€	£
174507 Elastic	\$22	€19	£14.16
174506 Webbing	\$13	€11	£8.33

Extreme Close-Up Photography and Focus Stacking

Julia Cremona (2014)



This practical book explains what is meant by macro photography and how to get even closer to your subject. Including techniques suited to any budget, and looks at ways to photograph virtually any creature, whether terrestrial, marine or freshwater. All the key elements to achieve extreme close-ups are covered, with special attention given to focus stacking including software and further enhancements.

212508 PBK

\$26 €23 £16.99

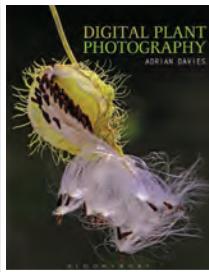
Digital Plant Photography

Adrian Davies (2013)

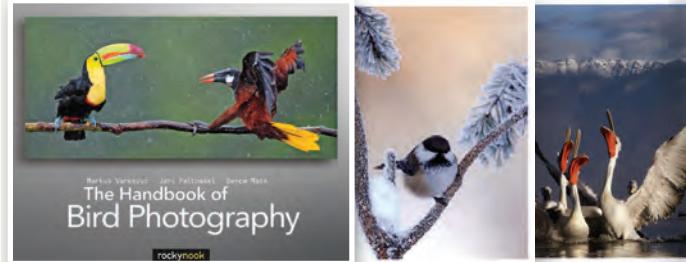
This beautifully illustrated guide is aimed both at photographers wishing to use plants as a rich source of subject matter, and at naturalist gardeners who want to record plants in a meaningful yet attractive way. Numerous practical skills, both basic and complex, are explained.

206099 PBK

\$28 €24 £17.99

**The Handbook of Bird Photography**

Markus Varesvuo et al. (2013)



This handbook distills the knowledge, talent and experience of three well-known professional wildlife photographers in one beautifully illustrated volume. It offers fresh insight and practical tips that will broaden horizons for nature and bird photographers.

202059 PBK

\$50 €44 £32.50

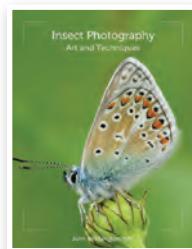
Insect Photography: Art and Techniques

John Bebbington (2012)

This practical book explains how to reliably take stunning photographs of insects. Through an introduction to different species and their behaviour, along with advice on techniques, it shows how to capture an individual moment to dramatic effect.

196452 PBK

\$26 €23 £16.99

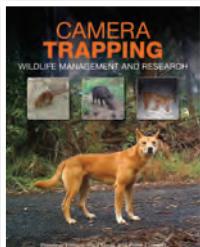
**Camera Trapping**

Paul Meek et al. (2014)

Camera Trapping brings together papers from presentations given at the First International Camera Trapping Colloquium in Sydney. The book provides a benchmark of the international developments and uses of camera traps for monitoring wildlife for research and management.

216263 PBK

\$119 €104 £76.95

**The House in the Woods**

Kai Fagerström et al. (2011)



In this book, Heikki Willamo and Kai Fagerström create a magical pictorial world of decaying houses that have been reclaimed by nature. Photographs are accompanied by Willamo's gripping prose and the poetry of Risto Rasa. This beautiful book reached the final of the WWF Nature Book of the Year Competition in 2010 and Kai Fagerström's photographs won him the top prize in his category in the Nature Photographer of the Year competition in 2010.

206252 HBK

\$77 €68 £49.99

The Oldest Living Things in the World

Rachel Sussman et al. (2014)



This book will take you on an epic journey through past and time. Travelling the world from Antarctica to the Mojave Desert, artist Rachel Sussman has photographed living organisms that are all over 2000 years old. The result is a stunning and unique visual collection of species unlike anything that has been created before. Alongside the photographs is included tales of her worldly adventures and informative insights from the scientists studying her subjects and their environments.

211534 HBK

\$49 €43 £31.50

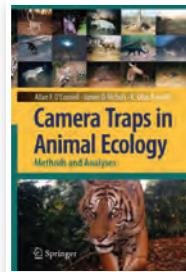
Camera Traps in Animal Ecology: Methods and Analyses

Allan F O'Connell et al. (2010)

Guiding the practitioner through the entire process of using camera traps, this book is the first to compile state-of-the-art sampling techniques for the purpose of conducting high quality science or effective management.

186538 HBK

\$222 €195 £144.00

**50 Years of Wildlife Photographer of the Year**

Rosamund Kidman Cox (2014)



A collection of the most beautiful and memorable pictures taken over the 50-year history of what is now the world's most prestigious wildlife photography competition. The pictures also tell the story of how the competition has marked the development of nature photography over the past half century. Images are organised chronologically within each subject group and captions are included to both put the photograph in context and tell the relevant story.

214935 HBK

\$54 €47 £34.99



Bushnell NatureView



Spypoint 12HD



Reconyx HC600

HOW TO CHOOSE THE TRAIL CAMERA THAT'S RIGHT FOR YOU

Trail camera technology is developing all the time, and the range of products on the market constantly expanding. While this is exciting, it can also be incredibly confusing, especially when you're trying to choose which model is best suited to your needs. Here are seven things you should consider when deciding which camera is right for you:

1. Type of LEDs / Flash Range

The infrared LEDs on a trail camera provide the illumination needed to take pictures at night. Generally speaking, these come in two types: standard or low glow. Standard LEDs (have a shorter wavelength which means that they will emit a small amount of visible light when activated. No glow LEDs () have a longer wavelength and do not produce this tell-tale red glow however, standard LEDs typically have a longer flash range allowing you to 'see' further in the dark.

2. Trigger speed 0.2s

Trigger speed is the time taken for an image or video to be recorded after the infrared motion sensor has been triggered. If your subject is fast moving then a quicker trigger speed will help to ensure you capture great images. The fastest trigger speeds are currently around 0.2 seconds.

3. Picture and video resolution 640 x 480

As with any type of camera, image and video resolution are key. Most trail cameras will give you the option to alter the resolution using compression or interpolation methods. This can be useful if you are deploying your camera for long periods, when memory card capacity may become an issue.

4. Does it record audio?

Some cameras also have a built-in microphone which means that audio can be captured along with your videos. This can add great atmosphere to your wildlife footage.

5. Does it have a viewing screen?

Having an image preview screen in your trail camera is beneficial in a number of ways. Firstly, it allows you to quickly check the images that you have recorded without having to remove the SD card or plug it into a laptop. Secondly, and perhaps more importantly, it lets you take a few test images. By walking (or running) in front of the camera and checking the image captured, you can be assured that your camera angle and position is exactly right.

6. Camera settings

All trail cameras will give you some control over the capture settings. Most will allow you to change the number of images taken per trigger as well as the length of video recorded. It is also usually possible, to specify the delay between photos and/or trigger events. Time lapse options allow you to take photographs at regular intervals between hours of your choice, and some cameras can be set with two separate time lapse windows. This is useful if you are interested in both dusk and dawn activities.

7. Wireless functionality

Cameras with wireless functionality will send images directly to your mobile phone or email account. This offers huge time saving benefits, as well as reducing the amount of disturbance at your survey site. Several cameras now have wireless capabilities, and some will even allow you to alter your camera settings remotely. An activated SIM card is required to use these features.

Minox DTC 1000

1280 x 720 <1s

The DTC 1000 Trail Camera from Minox is an 8MP camera with built-in wireless module and GSM (Global System for Mobile Communications) function. This feature means that you can receive up-to-date information about the activity at your chosen survey site via your mobile phone or email, no matter where you are. A daily report will also provide information on the total number of pictures and videos captured in the past 24 hours, together with remaining battery power and space on the SD card.

The motion sensor has adjustable sensitivity. Night vision is provided by the 48-LED infrared flash which is invisible to animals and humans. This flash has an effective range of over 15m. Images and videos are in colour during the day and black and white at night or in very low light situations. The camera can be programmed to record between one and three images per trigger, or will record HD video (1280x720p) with audio in 10–30 second clips.

All data is saved onto an SD card (up to 32GB supported) and the camera is powered by twelve AA batteries. The camera is completely weatherproof. The DTC 1000 comes with a fixing strap, USB cable and 4GB SD card.

(Prices exclude VAT)

209868 Minox DTC 1000

\$ 513

€ 451 £ 332.50



► Reconyx Trail Cameras

Reconyx cameras are manufactured in the U.S. and are well known for their incredibly robust design. No-glow infrared LEDs and an impressive motion sensor range of 30.5m makes them ideal for wildlife recording. All Reconyx cameras are supplied with an adjustable bungee cord for mounting and a copy of BuckView Image Management Software. This software allows you to map your camera locations and organise all of your images geographically. When online, the software will work in conjunction with Google Maps, and for use offline you can upload your own maps.



Reconyx Hyperfire HC600



The Reconyx HyperFire HC600 has a remarkably fast trigger speed of just 0.2 seconds. This ensures that you won't miss even the fastest moving animals. It also features no-glow output covert infrared technology, which eliminates the red glow common to many infrared cameras. This has obvious benefits when recording wildlife. The infrared flash illuminates up to 15m and exposure is adjustable. The motion sensor has an impressive range of 30.5m; much further than most other trail cameras on the market. Sensitivity of the motion sensor can be altered if required. The HC600 is fully programmable; choose how many images are taken per trigger, the time between images and the delay between triggers.

The camera is housed in a robust case with camouflage design and is completely weatherproof. A breathable air vent allows pressure inside the casing to equalise whilst maintaining weatherproofing. It is powered by 12 x AA batteries (NiMH or Li-ion only) which will last for up to a year. Images and videos are saved onto an SD/SDHC card (up to 32GB supported).

The HC600 comes with an adjustable bungee cord for mounting and BuckView Advanced software (see information box). A security enclosure, swivel mount and ratchet strap are available to purchase separately.

(Prices exclude VAT)

	\$	€	£
196572 Hyperfire HC600	\$552	€485	£357.50
218971 Hyperfire Security Enclosure	\$51	€45	£33.29
218972 Heavy-Duty Swivel Mount	\$58	€51	£37.46
219227 Ratchet Strap	\$12	€10	£7.49



Reconyx UltraFire XR6



The Reconyx UltraFire XR6 records 1080p video and 8MP images with stereo sound. Images are in full colour during the day and black and white at night. The motion sensor is effective up to a range of 30.5m and sensitivity is adjustable. No-glow infrared LEDs provide crisp night vision images with a range of up to 25m. A built-in 6cm colour screen lets you preview your images and videos in the field. Unlike most trail cameras the XR6 has two camera lenses; one for daytime images and another for night. This means that there is no need for an infrared cut, making the camera completely silent. Trigger speed is approximately one second.

The XR6 allows you to choose the number of photos taken per trigger (1–10) or the length of video recorded (10, 20 or 30 seconds). It is also possible to record both images and video for a single trigger. A time lapse function will take images at regular intervals; choose between 1, 5, 15, 30 or 60 minutes.

The camera is powered by 12 x AA batteries (NiMH or Li-ion only) and SD/SDHC cards of up to 32GB are supported (Class 6 or greater recommended). The grey casing is robust and fully weatherproof. An adjustable bungee cord is supplied for attaching the camera to a tree or post. Also included with the camera is BuckView Advanced image management software. This package allows you to geographically organise and access your images using Google Maps. A security enclosure, swivel mount and ratchet strap are available to purchase separately.

(Prices exclude VAT)

	\$	€	£
218939 UltraFire XR6	\$598	€525	£387.49
218970 UltraFire Security Enclosure	\$51	€45	£33.29
218972 Heavy-Duty Swivel Mount	\$58	€51	£37.46
219227 Ratchet Strap	\$12	€10	£7.49

Hyperfire Security Enclosure

Heavy Duty swivel mount

Ultrafire XR6



RECONYX & MINOX COMPARISON

	MP 8 IMAGE QUALITY	640 x 480 VIDEO RESOLUTION	AUDIO	0.2s TRIGGER SPEED	10m LED TYPE / RANGE	txt DISPLAY	WIRELESS	PRICE (GBP)
Reconyx HC600	3.1MP	1920 x 1080	No	0.2s	No glow 15m	Text only	No	£357.50
Reconyx XR6	8MP	1920 x 1080	Yes	~ 1s	No glow 25m	Full colour	No	£387.49
Minox DTC 1000	8MP	1280 x 720	Yes	< 1s	No glow 15m	Full colour	Yes	£332.50



► Bushnell Trail Cameras

All Bushnell trail cameras come with a host of features that make them ideal for filming and photographing wildlife. The Hyper PIR feature gives the motion sensor a range of up to 18 metres and has adjustable sensitivity (low, medium, high or auto) to make sure you get your shot. All Bushnell cameras also have the 2x Field Scan function which triggers the camera at set intervals within two time slots, allowing you to monitor both dusk and dawn. This works without the PIR having to be triggered allowing you to monitor a larger area. All images are stamped with the date, temperature and moon phase at time of trigger.

Accessories such as security cases and mounting brackets are also available. All models of camera can also be purchased as part of a starter bundle which includes batteries and a 4GB SD card.

BUSHNELL COMPARISON

	MP 8	IMAGE QUALITY	640 480	VIDEO RESOLUTION	AUDIO	0.2s	TRIGGER SPEED	10m	LED TYPE / RANGE	txt	DISPLAY	WIRELESS	PRICE (GBP)
Trophy Cam 2014	5MP		720 x 480		Yes	0.8s		Standard 15m		Text only		No	£107.50
Trophy Cam HD 2014	5MP		1280 x 720		Yes	0.3s		No glow 18m		Text only		No	£178.33
Trophy Cam HD Max 2014	5MP		1920 x 1080		Yes	0.2s		No glow 18m		Text only		No	£219.17
NatureView HD	5MP		1280 x 720		Yes	0.6s		Standard 18m		Text only		No	£129.16
NatureView HD Max	5MP		1920 x 1080		Yes	0.7s		No glow 18m		Full Colour		No	£218.29



Bushnell NatureView HD

MP 1280 x 720 0.6s 18m The NatureView HD is designed for keen wildlife observers and will let you take motion triggered videos and images of wildlife, saving them all onto an SD card. Resolution of the images recorded is 5MP although 3MP compression and 8MP interpolation can also be selected. Videos are recorded with a resolution of 1280 x 720. In hybrid capture mode both images and videos can be recorded for the same trigger event. Footage is taken in full colour during the day and in black and white at night. The motion sensor is activated up to a distance of 15m and the night vision flash has a range of 18m. Trigger speed is 0.6 seconds. The NatureView HD is powered by 4-8 AA batteries and comes with an adjustable web belt for attachment to a tree or post.



(Prices exclude VAT)

222105 NatureView HD	\$199	€175	£129.16
222272 NatureView HD Starter Kit	\$212	€186	£137.49
201058 Security Case	\$58	€51	£37.50

Bushnell NatureView HD Max

MP 1920 x 1080 0.7s 18m

The Bushnell NatureView HD Max Camera has several great features that make wildlife photography even more exciting. It is the only trail camera on the market that comes with two additional close focus lenses which are attached very easily by screwing them onto the front of the camera. These provide a minimum focal distance of 25cm and 46cm – ideal for siting the camera near to a bird feeder, burrow entrance or roosting spot. Use the camera without the lenses to get a great idea of animal movement and behaviour over a bigger range, then with the close-focus lenses you can get superb images of your subjects up close. The camera captures still images (5 megapixel camera) or true 1080p HD video with sound during the day and night and has a time lapse function. The NatureView records onto an SD card, and the handy built-in LCD colour screen lets you view your images and videos on the camera. The NatureView is robust and waterproof, with Hyper Night Vision, no-glow black LED's and temperature sensitivity regulation. Comes in a natural green colour with an adjustable web belt for easy attachment to trees.

The Starter Kit contains the NatureView HD Max, 12 x AA batteries and a 4GB SD card.

(Prices exclude VAT)

206086 NatureView Camera HD Max	\$337	€296	£218.29
206864 NatureView Camera HD Max - Starter Kit	\$352	€309	£227.92
201058 Security Case	\$58	€51	£37.50

Bushnell Trophy Cam HD Max 2014

MP 1920 x 1080 0.2s 18m

The Bushnell Trophy Cam HD Max 2014 has an impressive trigger speed of just 0.2 seconds. Videos are captured in super high resolution (1920 x 1080) with audio. The no glow LEDs ensure the camera remains hidden whilst allowing for high quality images and video to be captured day or night. The 2x field scan function allows you to monitor both dusk and dawn at your survey site. The camera has a standard tripod socket and comes with a web belt for attaching to a tree or post. Images and video are saved onto an SD card and power is supplied by 4–12 AA batteries (not included).

A Starter Kit is also available which contains the Trophy Cam HD, 12 x AA batteries and a 4GB SD card.

(Prices exclude VAT)

	\$	€	£
214044 Trophy Cam HD Max 2014	\$338	€297	£219.17
214359 Trophy Cam HD Max 2014 - Starter Kit	\$353	€310	£228.75
219133 Security Case	\$45	€40	£29.17



Bushnell Trophy Cam 2014

MP 720 x 480 0.8s 15m

The Bushnell Trophy Cam 2014 is Bushnell's entry level trail camera with a trigger speed of 0.8 seconds. The camera can take both still images and video with audio. Hyper NightVision technology ensures that images taken at night are crisp and clear. The 2x Field Scan function allows you to monitor both dusk and dawn at your survey site. Images and video are saved onto an SD card and power is supplied by 8 AA batteries (not included).

A Starter Kit is also available which contains the Trophy Cam, 8 x AA batteries and a 4GB SD card.

(Prices exclude VAT)

	\$	€	£
214043 Trophy Cam 2014	\$166	€146	£107.50
214358 Trophy Cam 2014 - Starter Kit	\$179	€157	£115.79
201058 Security Case	\$58	€51	£37.50



HOW TO TAKE GREAT PICTURES WITH A TRAIL CAMERA

With trail camera technology advancing rapidly, it is now possible to obtain high quality pictures and video footage from your trail camera by following a few simple guidelines.

Siting your camera - Choosing your location wisely will vastly improve your chance of getting great images. If possible, point your camera along a trail or aim it at a known feeding or nesting point where you know that animals will be visiting. The best height at which to position the camera will be largely dependent on the species you are trying to capture, so keep this in mind during the setup process. Some cameras have a handy test mode that allows you to check the position and range at which the sensor is triggered. It is also advisable to check that you have the camera set at the correct height and distance (at least 3m from your target for most models) by taking some test photos and viewing them on an internal screen or laptop before leaving your trail camera in position.

Infrared sensitivity - The PIR sensitivity will affect how easily the camera will be triggered. Most trail cameras have temperature correction functions that can compensate for decreased sensitivity in warm weather, otherwise make sure that you set the trigger sensitivity to 'high' at warmer temperatures. Also, if you are setting up your camera in an area with lots of vegetation which could trigger the

Bushnell Trophy Cam HD 2014

MP 1280 x 720 0.3s 18m

The Bushnell Trophy Cam HD 2014 has an extremely fast trigger speed of just 0.3 seconds. It can capture high definition video (1280 x 720) with audio as well as still images, capturing up to three images per trigger. The no glow LEDs are invisible to animals, which helps avoid the startle response which can occur with standard LEDs. The 2x Field Scan function allows you to monitor both dusk and dawn at your survey site. The camera has a standard tripod socket and comes with a web belt for attaching to a tree or post. Images and video are saved onto an SD card and power is supplied by 4–8 AA batteries (not included).

A Starter Kit is also available which contains the Trophy Cam HD, 8 x AA batteries and a 4GB SD card.

(Prices exclude VAT)

	\$	€	£
214028 Trophy Cam HD 2014 (Black)	\$275	€242	£178.33
214029 Trophy Cam HD 2014 (Camouflage)	\$291	€256	£188.75
214342 Trophy Cam HD 2014 - Starter Kit (Black)	\$285	€250	£184.58
214343 Trophy Cam HD 2014 - Starter Kit (Camouflage)	\$303	€267	£196.67
221830 Security Case	\$58	€51	£37.50

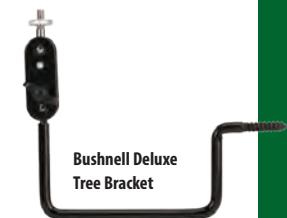


Bushnell Trail Camera Accessories

Security cases are available to fit all Bushnell NatureView and Trophy Cam Trail Cameras. These are designed to fit each individual camera and appropriate models are listed with each product. The Deluxe Tree Bracket provides a versatile mounting solution for all Bushnell cameras and will screw into any tree or post. It can also be used with the security case. The Python Mini Cable lock threads through the loops on the rear of the trail camera (or security box) and will allow you to keep your camera secure in the field. A Lens Cleaning Kit is useful for keeping your lens free from dust and dirt and will make sure your images stay clear.

(Prices exclude VAT)

	\$	€	£
190801 Deluxe Tree Bracket	\$23	€20	£14.99
202241 Python Mini Cable Lock	\$24	€21	£15.83
217959 Lens Cleaning Kit	\$14	€12	£9.16



Spypoint 12HD



Reconyx HC600

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camera, you may wish to select a lower sensitivity to avoid it triggering every time the wind blows.

Exposure - Trail cameras tend to have automatic exposure during the daytime, so make sure that your camera is not pointed towards the sunrise or sunset. In the open, it is best to face trail cameras north or south wherever possible.

Functionality - Different models of trail camera all have different features and capabilities. Make sure you read your manual and familiarise yourself with these before you venture into the field, and don't be afraid to experiment with settings until you figure out what works best for your chosen site and subject.

And finally - Don't forget to check your batteries and make sure that there is plenty of space on your SD card. If your camera is going to be sited in a location where security may be an issue, it might also be a good idea to secure it with a cable lock or use a security box.

LTL ACORN TRAIL CAMERAS

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► Ltl Acorns

Ltl Acorn trail cameras are compact trail cameras which record images and video directly onto an internal SD card. These trail cameras use three built in motion sensors, including two side sensors to ensure you get optimum footage of your subject. The LED array on the cameras allows video and pictures to be taken in complete darkness. All of the Ltl Acorn cameras have the option of either standard or no glow LEDs.

The standard LEDs offer a greater range but emit a faint red glow, the no glow LEDs do not glow when in use but have a reduced range. The Ltl Acorn trail cameras are also available with a cellular module which allows the camera to send pictures to a mobile phone or e-mail address when triggered, this will also require a SIM card. The latest models of Ltl Acorn cameras are available with the option of a wide angle lens, increasing the field of view to 100°. Please see below for a full comparison chart.

All of our Ltl Acorn trail cameras are available as a starter bundle which includes the camera, 4 GB SD card and batteries.



Ltl ACORN COMPARISON

	MP 8 IMAGE QUALITY	640 x 480 VIDEO RESOLUTION	AUDIO	0.2s TRIGGER SPEED	10m LED TYPE / RANGE	txt DISPLAY	WIRELESS	PRICE (GBP)
5210A - 850nm IR	5MP	640 x 480	No	0.8s	Standard 19.8m	Full colour	No	£107.50
5210A - 940nm IR	5MP	640 x 480	No	0.8s	No glow 10.7m	Full colour	No	£107.50
5210MG - 940nm IR	5MP	640 x 480	No	0.8s	No glow 10.7m	Full colour	Yes	£195.83
5310A - 850nm IR	5MP	1280 x 720	No	0.6s	Standard 21m	Full colour	No	£115.83
5310A - 940nm IR	5MP	1280 x 720	No	0.6s	No glow 16m	Full colour	No	£115.83
5310MG - 940nm IR	5MP	1280 x 720	No	0.6s	No glow 16m	Full colour	Yes	£207.50
5310WA - 850nm IR	5MP	1280 x 720	No	0.6s	Standard 16m	Full colour	No	£120.83
5310WA - 940nm IR	5MP	1280 x 720	No	0.6s	No glow 11m	Full colour	No	£120.83
5310WMG - 940nm IR	5MP	1280 x 720	No	0.6s	No glow 11m	Full colour	Yes	£212.50
6210MC - 850nm IR	5MP	1440 x 1080	Yes	0.8s	Standard 19.8m	Full colour	No	£137.50
6210MC - 940nm IR	5MP	1440 x 1080	Yes	0.8s	No glow 10.7m	Full colour	No	£137.50
6210MG - 940nm IR	5MP	1440 x 1080	Yes	0.8s	No glow 10.7m	Full colour	Yes	£240.83
6310MC - 850nm IR	5MP	1440 x 1080	Yes	0.8s	Standard 21m	Full colour	No	£150.00
6310MC - 940nm IR	5MP	1440 x 1080	Yes	0.8s	No glow 16m	Full colour	No	£150.00
6310MG - 940nm IR	5MP	1440 x 1080	Yes	0.8s	No glow 16m	Full colour	Yes	£254.17
6310WMC - 850nm IR	5MP	1440 x 1080	Yes	0.8s	Standard 25m	Full colour	No	£154.17
6310WMC - 940nm IR	5MP	1440 x 1080	Yes	0.8s	No glow 10m	Full colour	No	£154.17
6310WMG - 940nm IR	5MP	1440 x 1080	Yes	0.8s	No glow 10m	Full colour	Yes	£258.33

Ltl Acorn 5210



The 5210 series is Ltl Acorn's entry level camera with the ability to capture images (5MP camera) and video (640 x 480 resolution). The camera can take up three shots and one video per trigger. A time lapse function is also available allowing the camera to take images or capture video at set intervals. Available with either standard or no glow LEDs. The standard LEDs give the camera a flash range of 19.8m but emit a faint red glow, no glow LEDs do not glow but have a reduced range 10.7m. The motion sensor has a detection range of approximately 20m. It has a standby time of three months on 4 x AA batteries and six months on 8 x AA batteries. This camera is only compatible with SD cards up to 16GB. The 5210MG has the added functionality of being able to transmit images to a mobile device or e-mail when used with a SIM card.



Ltl Acorn 6210



The 6210 series is the HD option within the Ltl Acorn range with the ability to capture video in high definition (1440 x 1080) with audio, it also has an increased SD capacity of 32GB. The camera can take up three shots and one video per trigger with a trigger speed of 0.8 seconds. A time lapse function is also available allowing the camera to take images or capture video at set intervals. Available with either standard or no glow LEDs. The standard LEDs give the camera a flash range of 19.8m but emit a faint red glow, no glow LEDs do not glow but have a reduced range 10.7m. The motion sensor has a detection range of approximately 20m. It has a standby time of three months on 4 x AA batteries and six months on 12 x AA batteries. The 6210MG has the added functionality of being able to transmit images to a mobile device or e-mail when used with a SIM card.



(Prices exclude VAT)

	\$	€	£
218083 5210A - 850nm IR	\$166	€146	£107.50
218084 5210A - 940nm IR	\$166	€146	£107.50
218085 5210MG - 850nm IR	\$302	€266	£195.83
218352 5210A - 850nm IR Starter Bundle	\$179	€157	£115.83
218353 5210A - 940nm IR Starter Bundle	\$179	€157	£115.83

(Prices exclude VAT)

	\$	€	£
218089 6210MC - 850nm IR	\$212	€186	£137.50
218090 6210MC - 940nm IR	\$212	€186	£137.50
218091 6210MG - 850nm IR	\$372	€327	£240.83
218367 6210MC - 850nm IR Starter Bundle	\$228	€201	£147.92
218368 6210MC - 940nm IR Starter Bundle	\$228	€201	£147.92



Ltl Acorn 5310

MP **1280 x 720**

The 5310 is an upgraded version of the 5210 series with an improved video resolution of 1080 x 720 and an increased illumination range thanks to the 44 LED array. The trigger time has also been improved to 0.6 seconds and the camera can capture up to three images and one video per trigger. The 5310 is also available with a wide angled lens (5310WA and 5310WMG) increasing the field of view to 100°. Available with either standard or no glow LEDs. The standard LEDs give the camera a flash range of 21m (16m for the Wide Angle version) but emit a faint red glow, no glow LEDs do not glow but have a reduced range 16m (11m for the Wide Angle version). The motion sensor has a detection range of approximately 20m. It has a standby time of three months on 4 x AA batteries and six months on 8 x AA batteries. This camera is only compatible with SD cards up to 16GB. The 5310MG and 5310WMG have the added functionality of being able to transmit images to a mobile device or e-mail when used with a SIM card.



(Prices exclude VAT)

	\$	€	£
218094 5310A - 850nm IR	\$179	€157	£115.83
218095 5310A - 940nm IR	\$179	€157	£115.83
218098 5310MG - 940nm IR	\$320	€281	£207.50
218103 5310WA - 850nm IR	\$186	€164	£120.83
218104 5310WA - 940nm IR	\$186	€164	£120.83
218105 5310WMG - 940nm IR	\$328	€288	£212.50
218373 5310A - 850nm IR Starter Bundle	\$192	€168	£124.17
218374 5310A - 940nm IR Starter Bundle	\$192	€168	£124.17
218479 5310WA - 850nm IR Starter Bundle	\$199	€175	£129.17
218480 5310WA - 940nm IR Starter Bundle	\$199	€175	£129.17

Trail Camera Accessories

We stock a range of batteries and SDHC memory cards to suit your budget and needs. You may also be interested in the Python Mini Cable Lock which is ideal for securing field equipment such as trail cameras. Made from cut-resistant braided steel it is vinyl coated to prevent scratching your valuable kit.

Batteries

(Prices exclude VAT)

	\$	€	£
218358 AA Alkaline: Pack of 4 (Energizer)	\$4	€3	£2.49
196591 AA Lithium: Pack of 4 (Energizer)	\$17	€15	£10.82



Memory Cards (Class 10 SDHC)

	\$	€	£
211459 Verbatim: 4GB	\$10	€8	£6.25
221840 Verbatim: 16GB	\$13	€11	£8.29
211460 Verbatim: 32GB	\$26	€23	£16.66



Trail Camera Security

	\$	€	£
202241 Python Mini Cable Lock	\$24	€21	£15.83



Ltl Acorn 6310

MP **1440 x 1080**

The 6310 is an upgraded version of the 6210 series with an increased illumination range thanks to the 44 LED array. The 6310 has a high definition video resolution of 1440 x 1080 with audio and is available with a wide angled lens (6310WMC and 6310WMG), increasing the field of view to 100°. Available with either standard or no glow LEDs. The standard LEDs give the camera a flash range of 30m (25m for Wide Angle Version) but emit a faint red glow, no glow LEDs do not glow but have a reduced range 16m (10m for Wide Angle version). The motion sensor has a detection range of approximately 20m. It has a standby time of three months on 4 x AA batteries and six months on 12 x AA batteries. This camera is only compatible with SD cards up to 32GB. The 6310MG and 6310WMG have the added functionality of being able to transmit images to a mobile device or e-mail when used with a SIM card.



(Prices exclude VAT)

	\$	€	£
218349 6310MC - 850nm IR	\$231	€203	£150.00
218350 6310MC - 940nm IR	\$231	€203	£150.00
221427 6310MG - 940nm IR	\$392	€345	£254.17
218919 6310WMC - 850nm IR	\$238	€209	£154.17
218920 6310WMC - 940nm IR	\$238	€209	£154.17
221699 6310WMG - 940nm IR	\$399	€350	£258.33
218922 6310MC - 850nm IR Starter Bundle	\$247	€217	£160.00
218923 6310MC - 940nm IR Starter Bundle	\$247	€217	£160.00
218924 6310WMC - 850nm IR Starter Bundle	\$253	€223	£164.17
218925 6310WMC - 940nm IR Starter Bundle	\$253	€223	£164.17

Ltl Acorn Security Box

The Ltl Acorn Security Boxes are an ideal way of keeping your Ltl Acorn trail camera secure when it is in use, whilst also offering some extra weather proofing. This metal security box is provided with a mounting bracket and has an attachment point for a small padlock or cable lock.



Please ensure that you order the correct security box for your model of Ltl Acorn trail camera.

(Prices exclude VAT)

	\$	€	£
218213 5210 Security Box	\$39	€34	£24.99
218214 5310 Security Box	\$39	€34	£24.99
218215 6210 Security Box	\$39	€34	£24.99
221877 6310 Security Box	\$46	€41	£29.99

Ltl Acorn Solar Panel

The Ltl Acorn Solar Panel increases the battery life of your Ltl Acorn trail camera. When connected your camera will use power from the solar panel first reverting to batteries when this is exhausted. The solar panel comes with a mounting bracket, fixings and cable to connect to your camera.

	\$	€	£
218159 Ltl Acorn Solar Panel	\$51	€45	£33.29





► Spypoint Trail Cameras

All Spypoint Trail Cameras are manufactured to a high standard with a tough, weatherproof casing and secure clasps. With the exception of the HD-7 they are available in a choice of black or camouflage. Detection range can be adjusted from 1.5 – 19.8m and cameras will record images and videos, in colour during the day and black and white during the night, onto an internal SD card (up to 32GB supported).

A range of accessories are available for use with Spypoint cameras including alternative power options, security cases, mounting brackets and wireless motion detectors. All models of camera can also be purchased as part of a starter bundle which includes batteries and a 4GB SD card. Cameras are covered by a two-year warranty.



Spypoint BF-6

MP 6MP 640 x 480 X 0.8s 20m txt X

The BF-6 is one of Spypoint's entry-level Adventure series cameras and records 6MP images and 640x480 resolution videos. The 35 infrared LEDs are invisible and the camera is removable from the casing for easier setup. Settings are adjusted using a switch panel.

In Image Mode, the camera can be programmed to take up to four shots per trigger and a time lapse function allows pictures to be taken at predefined intervals from 30 seconds to one hour. In Video Mode, the video length can be adjusted from 10 to 90 seconds. It is also possible to alter the required delay between triggers (between one and 15 minutes). Trigger speed is 0.8 seconds.

The BF-6 is powered by six AA batteries (included in the starter bundle). Compatible with the SB-91 Security Box.

(Prices exclude VAT)	\$	€	£
218285 BF-6: Camo	\$206	€181	£133.29
218287 BF-6: Black	\$206	€181	£133.29
218487 BF-6 Starter Bundle: Camo	\$217	€191	£140.79
218490 BF-6 Starter Bundle: Black	\$217	€191	£140.79



Spypoint HD-7

MP 7MP 1280 x 720 X 0.8s 20m txt X

The Spypoint HD-7 Trail Camera captures 7MP photos and HD (1280x720) videos with sound. It has 46 high-power infrared LEDs which ensure that your wildlife photos and videos have stunning clarity (these LEDs are not low-glow and will emit a red flash when activated.)

The multi-shot mode allows up to four pictures per detection and a time lapse function allows pictures to be taken at predefined intervals from 30 seconds to one hour. Video length can be adjusted from 10 to 90 seconds and the required delay between triggers can be set between one and 15 minutes. Trigger speed is 0.8 seconds.

Powered by 6 x AA batteries (included in the starter bundle). Compatible with the SB-91 Security Box.

(Prices exclude VAT)	\$	€	£
206389 HD-7	\$231	€203	£149.96
206562 HD-7 Starter Bundle	\$243	€214	£157.49

SPYPOINT COMPARISON

	MP 8 IMAGE QUALITY	640 x 480 VIDEO RESOLUTION	AUDIO	0.2s TRIGGER SPEED	10m LED TYPE / RANGE	DISPLAY	WIRELESS	PRICE (GBP)
BF-6	6MP	640 x 480	No	0.8s	No glow 19.8m	Text only	No	£133.29
HD-7	7MP	1280 x 720	Yes	0.8s	Standard 19.8m	Text only	No	£149.96
BF-12HD	12MP	1280 x 720	Yes	0.8s	No glow 19.8m	Full colour	No	£249.96
SMART	10MP	640 x 480	No	0.8s	No glow 19.8m	Text only	No	£158.33
Mini-Live	8MP	1280 x 720	No	0.8s	No glow 19.8m	Full colour	Yes	£320.83

SPYPOINT TRAIL CAMERAS



Spypoint BF-12HD

MP	1280 x 720	8	12	20m	0.8s	20m	txt	WIFI
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The BF-12HD features a handy preview screen and a removable camera for easy setup in the field. It records HD videos with audio (1280x720) and 12MP images. The 46 infrared LED's are invisible to wildlife and humans.

In Image Mode, the camera can be programmed to take up to six shots per trigger and a time lapse function allows pictures to be taken at intervals from 30 seconds to one hour. In Video Mode, the video length can be adjusted from 10 to 90 seconds. It is also possible to alter the required delay between triggers (between 10 seconds and 30 minutes). Trigger speed is 0.8 seconds when powered by battery or instant when connected to a mains socket using the optional mains adaptor.

The BF-12HD is powered by six AA batteries (not included). This trail camera can be used in combination with the MS-1 Motion Detector. Compatible with the SB-91 Security Box.

(Prices exclude VAT)

	\$	€	£
218475 BF-12HD: Camo	\$386	€339	£249.96
218476 BF-12HD: Black	\$386	€339	£249.96
218502 BF-12HD Starter Bundle: Camo	\$397	€349	£257.46
218506 BF-12HD Starter Bundle: Black	\$397	€349	£257.46



Spypoint SMART

MP	640 x 480	8	12	20m	0.8s	20m	txt	WIFI
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The Spypoint SMART Trail Camera utilises Intelligent Triggering Technology (I.T.T.) to ensure that your images and videos have the greatest chance of containing the best wildlife action. No configuration is required; just turn on the camera, select either video or image mode and you are ready to go. The camera will then alter the number of photos taken or length of video based upon the movement pattern detected. The included "SMARTSET" software will enable you to change the predefined settings using your PC if required (Windows only). An innovative touch wheel makes it simple to navigate the menu in the dark.

The SMART camera will take 10MP images and 640x480 videos. Its 36 infrared LEDs are invisible to wildlife and humans and trigger speed is 0.8 seconds.

Powered by 6 x AA batteries (included in the starter bundle). Compatible with the SB-SMART Security Box.

(Prices exclude VAT)

	\$	€	£
218530 SMART: Camo	\$244	€215	£158.33
218531 SMART: Black	\$244	€215	£158.33
218536 SMART Starter Bundle: Camo	\$256	€225	£165.83
218537 SMART Starter Bundle: Black	\$256	€225	£165.83



Spypoint Accessories

A range of power options are available for Spypoint Trail Cameras. An internal lithium battery or 12V external battery can be used, both of which can be purchased separately or with a charger. A solar panel can also be connected to both of these battery types. The AC/DC mains adaptor will allow you to connect the trail camera to mains power, providing an instant trigger speed. To keep your camera secure when in the field, a security box and cable lock are available. The mounting arm provides a versatile mounting solution and the photo/video viewer allows you to view your images and videos whilst out in the field.

Security

(Prices exclude VAT)

	\$	€	£
188839 Security Box: SB-91: Camo	\$77	€68	£49.96
218570 Security Box: SB-91: Black	\$77	€68	£49.96
188840 Security Box: SB-92: Camo	\$77	€68	£49.96
218571 Security Box: SB-92: Black	\$77	€68	£49.96
218563 Security Box: SB-SMART: Camo	\$77	€68	£49.96
218564 Security Box: SB-SMART: Black	\$77	€68	£49.96
218592 Security Box: SB-PRO: Camo	\$77	€68	£49.96
218593 Security Box: SB-PRO: Black	\$77	€68	£49.96
202241 Python Cable Lock	\$24	€21	£15.83



Power Options

184234 Lithium Battery and Charger	\$90	€79	£58.29
184235 Lithium Battery	\$64	€56	£41.63
184230 12V Battery Kit	\$96	€85	£62.46
184231 12V Battery	\$58	€51	£37.46
184229 12V Power Cable	\$19	€17	£12.46
192129 Mains Power Cable	\$39	€34	£24.96
184236 Solar Panel	\$71	€62	£45.79



General Accessories

192124 Photo/Video Viewer	\$129	€113	£83.29
192130 Mounting Arm: Camo	\$39	€34	£24.96
192131 Mounting Arm: Black	\$39	€34	£24.96
218484 MS-1 Motion Detector: Camo	\$109	€96	£70.79
218485 MS-1 Motion Detector: Black	\$109	€96	£70.79

GO PRO

► GoPro Cameras

The GoPro range of high definition personal cameras provides professional quality images and video in even the most demanding of conditions. With an extensive range of mounts and accessories you can capture action footage during any activity including underwater. All cameras come with free GoPro Studio software for editing and reviewing footage.



BUYERS GUIDE ► 2015

GoPro HERO

• Ideal entry level GoPro

• Integrated waterproof case

The GoPro HERO is built into a rugged waterproof case that is submersible to 40m and designed to withstand dirt, sand and water, meaning that you can record and share your outdoor experiences. With the wide range of mounts you can use it almost anywhere during any activity, as it is lightweight and compact. The GoPro HERO captures professional quality video with sound of up to 1080p30 resolution, or with an Ultra Wide Field of View at 720p60 resolution and 5MP photos at up to 5 frames per second. Camera modes include QuikCapture (powers on the camera and starts recording with the press of one button), SuperView (immersive wide angle



and Auto Low Light (intelligently changes frame rates based on light conditions). Time Lapse Mode allows you to capture photos at 0.5 second intervals. Supplied with: rechargeable Li-ion battery, skeleton backdoor, quick release buckle, one curved and one flat adhesive mount, and a USB Cable.

(Prices exclude VAT) \$ € £
218481 HERO Camera \$141 €124 £91.66



GoPro HERO4 Silver Edition

• Touchscreen display

• Wi-Fi and Bluetooth capability

The GoPro HERO4 Silver Edition is the first GoPro to include a touchscreen display that makes adjusting settings, framing shots and viewing images and videos easy. The camera provides 12MP still images at up to 30fps, perfect for fast-action sequences, and high resolution, high frame rate videos of 1080p60 with the ultra wide angle SuperView field of view. Time Lapse Mode captures a series of photos at various intervals and the Night Photo and Night Lapse modes offer extended exposure for night shots. The Auto Low Light Mode automatically changes frame rates for optimal low light performance and the ProTune function allows manual control of camera settings for stunning image quality and cinema calibre video. The built-in Bluetooth and Wi-Fi allow you to control the camera using either the SmartRemote (available separately) or the GoPro App on your smartphone or tablet. The HiLight tag feature tags your best clips from a button on



the camera while recording and the QuikCapture function turns the camera on and starts recording from a press of a button. The powerful new audio system captures clean, high fidelity sound. The housing provided with the camera is waterproof to 40m. Supplied with: standard waterproof housing, rechargeable Li-ion battery, skeleton and touch backdoors, 3-way pivot arm, quick release buckle, one curved and one flat adhesive mount, and a USB Cable.

(Prices exclude VAT) \$ € £
218482 HERO4 Silver Edition Camera \$424 €373 £274.99



GoPro HERO4 Black Edition

• 12MP photos and 4K30 video

• Wi-Fi and Bluetooth capability

The GoPro HERO4 Black Edition is the most advanced GoPro ever, providing ultra high resolution 4K30 and 2.7K50 professional video footage, the SuperView ultra wide field of view and frame rates up to 120fps for stunning clarity with liquid smooth slow motion playback. The camera provides 12MP still images at up to 30fps, ideal for fast-action sequences. Time Lapse Mode captures a series of photos at various intervals and the Night Photo and Night Lapse modes offer extended exposure for night shots. Auto Low Light Mode automatically changes frame rates for optimal low light performance so that you can move from brightly lit to dark conditions. The ProTune function allows manual control of camera settings for stunning image quality

and cinema calibre video. The built-in Bluetooth and Wi-Fi allow you to control the camera using either the SmartRemote (available separately) or the GoPro App on your smartphone or tablet. The HiLight tag feature tags your best clips from a button on the camera while recording so that you can locate your highlights more easily when viewing footage, and the QuikCapture function turns the camera on and starts recording from a press of a button. The powerful new audio system captures clean, high fidelity sound. The housing provided with the camera is waterproof to 40m. Supplied with: standard waterproof housing, rechargeable Li-ion battery, skeleton backdoor, 3-way pivot arm, quick release buckle, one curved and one flat adhesive mount, and a USB Cable.

(Prices exclude VAT) \$ € £
218483 HERO4 Black Edition Camera \$527 €463 £341.66



GO PRO CAMERA MOUNTS

The Handler Mount

The Handler has a non-slip grip and floats in water, enabling you to take selfies and POV footage whilst engaging in freshwater or marine fieldwork or watersports. Can float GoPros with bacpacs attached. Includes adjustable wrist strap and thumb screw wrench. Compatible with: all GoPro cameras.



(Prices exclude VAT)

218975 The Handler Mount \$31 €27 £19.99

Chest Mount

The Chest Mount straps your GoPro to your chest to capture hands-free footage during fieldwork, transects or cycling. The Chesty is fully adjustable to fit a range of adult sizes. Includes vertical quick release buckle, thumb screw and carrying bag. Compatible with: all GoPro cameras.

(Prices exclude VAT)

219011 Chest Mount \$42 €37 £27.49

**Wrist Housing Mount**

Wear your GoPro on your wrist for easy access during activities. Can be worn over jackets or gloves or strapped to poles. The camera mount pivots upwards so that you can take footage at different angles and is submersible to 60m, great for diving. Compatible with: HERO3, HERO3+, HERO4.



(Prices exclude VAT)

216181 Wrist Housing Mount \$53 €46 £34.16

Head Strap and Quick Clip Mount

Provides a variety of head-mounting options for your GoPro. Fully adjustable to fit all sizes, the Head Strap can be worn over a helmet or directly on your head, making it ideal for recording field techniques or survey footage. The QuickClip can attach your GoPro to a cap or to any object 3mm to 10mm thick for low profile recording. Compatible with: all GoPro cameras.

(Prices exclude VAT)

216185 Head Strap & QuickClip Mount



\$ \$21 €18 £13.33

Jaws Flex Clamp Mount

The Jaws Flex Clamp securely attaches your GoPro to any object from 0.6 to 5cm in diameter. Attach your GoPro directly to the clamp for low profile mounting, or use the bendy neck to achieve a wider range of camera angles. Compatible with: all GoPro cameras.



(Prices exclude VAT)

216186 Jaws Flex Clamp Mount \$53 €46 £34.16

Suction Cup Mount

Attach your GoPro to vehicles with the Suction Cup Mount, proven at speeds of 150+ mph. Adjustable arms for ultra-compact mounting. Supplied with adjustable arms, standard base, quick release base, and drawstring bag. Compatible with: all GoPro cameras.

(Prices exclude VAT)

216241 Suction Cup Mount \$42 €37 £27.49



\$ \$42 €37 £27.49

GO PRO CAMERA ACCESSORIES

Smart Remote**•Control up to 50 GoPro cameras wirelessly****•Works at distances up to 180m**

The GoPro Smart Remote uses Wi-Fi to control your GoPro cameras remotely, providing access to all of your GoPro camera settings and start/stop recording. It's perfect for shots where the camera is out of reach. The LCD screen mirrors your camera's status screen. It is wearable and waterproof to 10m. Supplied with key ring, wrist strap and charging cable. Compatible with: HERO3, HERO3+, HERO4.



(Prices exclude VAT)

216796 Smart Remote \$84 €73 £54.16

Battery BacPac**•Attaches to your GoPro to extend battery life****•LCD screen displays battery status**

Attaches to the back of your GoPro to increase battery life, perfect for time lapse photo sessions or fieldwork. Charge it using the GoPro Auto or Wall Charger (sold separately), other USB charger or computer (USB cable included). Features LCD window that displays battery level or charging status and an LED light that displays recording status. Supplied with: Standard BacPac Backdoor, Skeleton BacPac Backdoor, USB cable, mounting hardware, protective case. Compatible with: HERO3, HERO3+, HERO4.



(Prices exclude VAT)

216198 Battery BacPac \$53 €46 £34.16

LCD Touch BacPac Screen**•Removable LCD touch screen for your GoPro****•With speaker and headphone jack**

The LCD Touch BacPac Screen is touch screen that attaches to the back of your GoPro. You can frame shots and play back content and you have touch-screen control of all camera settings. Supplied with: BacPac Backdoor, Standard BacPac, Skeleton BacPac Backdoor, mounting hardware and protective case. Compatible with: HERO3, HERO3+, HERO4 Black.



(Prices exclude VAT)

216197 LCD Touch BacPac Screen \$84 €73 £54.16

Accessories

(Prices exclude VAT)

216802 Standard Housing	\$53	€46	£34.16
216800 Skeleton Housing	\$53	€46	£34.16
216195 Dive Housing	\$63	€55	£40.83
216196 Blackout Housing	\$53	€46	£34.16
218694 HERO4 Rechargeable Battery	\$21	€18	£13.33
218696 HERO4 Dual Battery Charger	\$53	€46	£34.16
216200 Wall Charger	\$42	€37	£27.49
219006 Auto Charger	\$31	€27	£19.99
216203 Protective Lens	\$21	€18	£13.33
216202 Anti Fog Inserts	\$15	€14	£9.99
216797 3.5mm Microphone Adapter	\$21	€18	£13.33
216798 Micro HDMI Cable	\$21	€18	£13.33
216799 Mini USB Composite Cable	\$21	€18	£13.33

BIRD BOX CAMERAS

CHOOSING A NEST BOX CAMERA

Wired vs. Wireless

Wired nest box camera systems have a cable running from the camera back to your home or classroom. This cable carries both the power to the camera and the audiovisual (AV) signal from it. In wireless systems, the AV signal is transmitted wirelessly from the nest box to a receiver in your home. Both types of system have their benefits and challenges.

When using a wired camera system the power is carried to the camera via the AV cable which runs from your house. This means that you do not need to have a mains socket in your garden near to the nest box. The picture quality obtained with a wired system is also likely to be better as there will be no interference from other wireless devices. However, the cable running from the camera will need to enter your house, either by drilling through a wall or threading the cable through an open window.



Wireless Nest Box Camera with USB Connection

This tiny wireless camera transmits both video and audio to the small receiver which plugs directly into the USB port of your PC or laptop. This allows you to record directly onto your hard drive. The camera will transmit over 50m in clear, uncluttered habitat. It will record in colour during the day and, using the infrared LEDs, will record in black and white during the night. The camera has a wide angle lens and adjustable focus. Power to the camera is supplied via a one metre mains cable (extensions available). Also includes CCTV software which allows motion detection, scheduled recording and web/mobile phone viewing of images via Google Picasa.

(Prices exclude VAT)	\$	€	£
214253 Wireless Nest Box Camera	\$99	€87	£64.16
209577 20m Power Cable	\$15	€13	£9.58



Wired Camera Bird Box

The Wired Camera Bird Box is a high quality nest box constructed from FSC certified, exterior grade plywood with a nest box camera, lighting system and microphone. A translucent window in the side of the nest box allows enough light in for colour pictures during the day without disturbing resident birds. It uses an infrared light at night to capture black and white images. This camera has a 20m cable which plugs directly into your TV or video player. This cable also carries the power to the camera. It is designed to run on mains power but there is also the option to run the camera using a battery. The nest box is ready assembled and easy to site without any specialist tools.

(Prices exclude VAT)	\$	€	£
216907 Wired Camera Bird Box	\$94	€82	£60.79
209577 USB Video Capture Device	\$39	€34	£24.96



Bird Feeder with Camera

This wireless colour camera is fixed to a wooden bird feeder, providing an excellent set up for taking close-up photographs of feeding birds. The camera is mounted on an adjustable boom allowing it to be perfectly positioned to get the best footage. The feeder is designed to be mounted to a wall or bird table and takes approximately 1kg of peanuts.

A separate battery box has an on/off switch and is connected to the camera via a 1.6m cable. The camera runs on mains power or four size D batteries, battery life is between six and ten days if used for twelve hours per day. The transmitter has a range of approximately 100m depending on obstacles such as walls and trees. The receiver is easily connected to a TV providing a live stream from the feeder.

(Prices exclude VAT)	\$	€	£
216910 Bird Feeder with Camera	\$165	€145	£106.67

BUYERS GUIDE ► 2015

If you do have a mains power source near to your nest box (e.g. situated in a shed or outbuilding) then a wireless camera can be a great choice. These cameras will transmit images wirelessly to a receiver in your house and so do not require a cable to be running through your garden – an obvious benefit if you have children or pets and when mowing the lawn. Most wireless cameras will transmit over 50m in uncluttered areas, but other wireless devices in the area may affect the signal quality.

TV vs. USB

All our nest box cameras come with an AV cable or receiver that plugs directly into your TV, letting you view the live action from your camera as it happens. With the addition of a USB video capture device, however, you can connect the camera or receiver to your computer. The capture device lets you record your images and videos to your hard drive, upload photographs to an internet photo account and even use motion detection and scheduled recording functions.

Nest Box Camera Starter Kit



The nest box camera starter kit contains everything you need to begin watching and listening to the nesting birds in your garden. It includes a bird box which is made from FSC timber and has a 29mm entrance hole with copper protection plate. A perspex panel in the side of the box allows light to enter, improving camera performance. A CMOS colour/infrared camera is mounted in the roof of the nest box and provides full colour images during the day and black and white images at night or in low light levels. The camera is connected to a 30m cable which plugs into your TV using the scart adapter supplied. This cable transmits the AV signal from the camera to your television and also provides the camera with power.

(Prices exclude VAT)	\$	€	£
219846 Nest Box Camera Kit	\$103	€90	£66.66
209577 USB Video Capture Device	\$39	€34	£24.96



Gardenature Nest Box Camera System - Ultra High Resolution

This Gardenature nest box is manufactured from Red Cedar following RSPB and BTO guidelines and has a 32mm entrance hole. The front panel can also be removed to create an open-fronted box. A small sliding drawer in the top of the box houses the camera which is fitted with a quick release bracket. The Sony CCD camera has ten infrared night vision LEDs which are adjusted automatically depending on light levels. Daytime images are in full colour and night time images in crisp black and white. A sensitive microphone in the camera provides audio. The camera is connected to a 30m cable which carries the audio and visual signal to your television as well as the power to the camera.

(Prices exclude VAT)	\$	€	£
219851 Nest Box Camera System	\$159	€140	£103.29
209577 USB Video Capture Device	\$39	€34	£24.96



CCD Bird Box Camera with Night Vision and 20m Cable

This CCD Bird Box Camera includes a tiny camera which can be connected to a TV, VCR, DVR, USB connector (available separately) or PC/Laptop for simple viewing. The camera will focus from just a few cm up to approximately 30m. It has a high resolution of 420 TV lines and it also has 11 infrared LEDs which provides excellent night-time images.

The camera is connected to your TV (or other device) with the supplied 20m cable which also provides power to the camera. (Please note: if you wish to use this camera with your computer you will require the USB Video Capture device).

(Prices exclude VAT)

	\$	€	£
214379 CCD Bird Box Camera	\$75	€65	£48.29
209577 USB Video Capture Device	\$39	€34	£24.96
214425 AV Extension Cable: 10m	\$16	€14	£10.42
214426 AV Extension Cable: 20m	\$21	€19	£13.75
214427 AV Extension Cable: 30m	\$27	€24	£17.49
219309 AV Extension Cable: 50m	\$39	€34	£25.00

Nest Box Camera with Night Vision

This tiny camera is perfect for use in a bird box or other nesting box. It can be connected directly to a TV, VCR, DVR, USB device (sold separately) or PC/laptop (computers must have a video input). The camera has a focal distance ranging from a few centimetres up to around 30m. Adjustable focus gives you further control of your setup and images.

The camera has a resolution of 380 TV lines and six infrared LEDs providing night vision up to 1.5m from the camera. Power to the camera is provided via the 20m AV cable.

This camera system is also available with a USB device, enabling you to connect your camera directly to the USB port of your computer.

(Prices exclude VAT)

	\$	€	£
209629 Nest Box Camera	\$45	€40	£29.13
214424 Nest Box Camera with USB device	\$77	€68	£49.99
214425 AV Extension Cable: 10m	\$16	€14	£10.42
214426 AV Extension Cable: 20m	\$21	€19	£13.75
214427 AV Extension Cable: 30m	\$27	€24	£17.49
219309 AV Extension Cable: 50m	\$39	€34	£25.00

Nest box cameras can be fitted into most wooden bird boxes. See page 38–59 for our full range of nest boxes and habitats



WEATHERPROOF CCTV & DIGITAL VIDEO RECORDERS

Wireless CCTV and Digital Video Recorder Kit

This camera kit includes a wireless colour CCTV camera with a wireless digital video recorder.

Images and videos will switch from full colour to infrared (b&w), depending on the light conditions. The camera is powered from the mains using the 1.2m adapter cable provided (20m extension available separately).

The mini digital video recorder has advanced features such as scheduled recording, motion detection with pre-record and a maximum recording frame-rate of 25fps. The unit records directly onto an SDHC card (up to 32GB) and is powered using the 1.2m mains adapter cable provided (20m extension available to purchase separately).

We do not recommend that you position the camera and receiver more than 50m apart due to the signal interference that can occur from other wireless devices.

Please note that the receiver must be connected to your television using the cable provided in order to access the setup process.

(Prices exclude VAT)

	\$	€	£
209578 Wireless CCTV and DVR Kit	\$198	€174	£128.29
209756 20m 12V Power Cable	\$14	€12	£8.96



Sony CCTV Camera and SD Recorder

This wired CCTV package is high quality, outdoor camera, perfect for recording wildlife. Videos are recorded directly onto SD card (up to 32GB supported). The high quality camera provides excellent quality colour video in daylight with 23 infrared LED's for imaging in darkness at a distance of up to 15m. The camera housing is constructed from aluminium which is resistant to corrosion. It can be attached easily to any solid surface using the three screws and wall plugs provided.

The digital video recorder connects to the camera using the supplied 1.2m video cable and has a real time resolution of 720x576, allowing you to record footage at a 24fps. Scheduled recording and motion detection functions make it easier than ever to record only when you need to and it also has a 10 second pre-record function.

The recorder is supplied with a power adapter allowing you to connect it to a mains supply (a 20m extension cable is also available). The recorder will also supply power to the camera.

(Prices exclude VAT)

	\$	€	£
209752 Sony CCTV Camera and SD Recorder	\$225	€198	£145.79

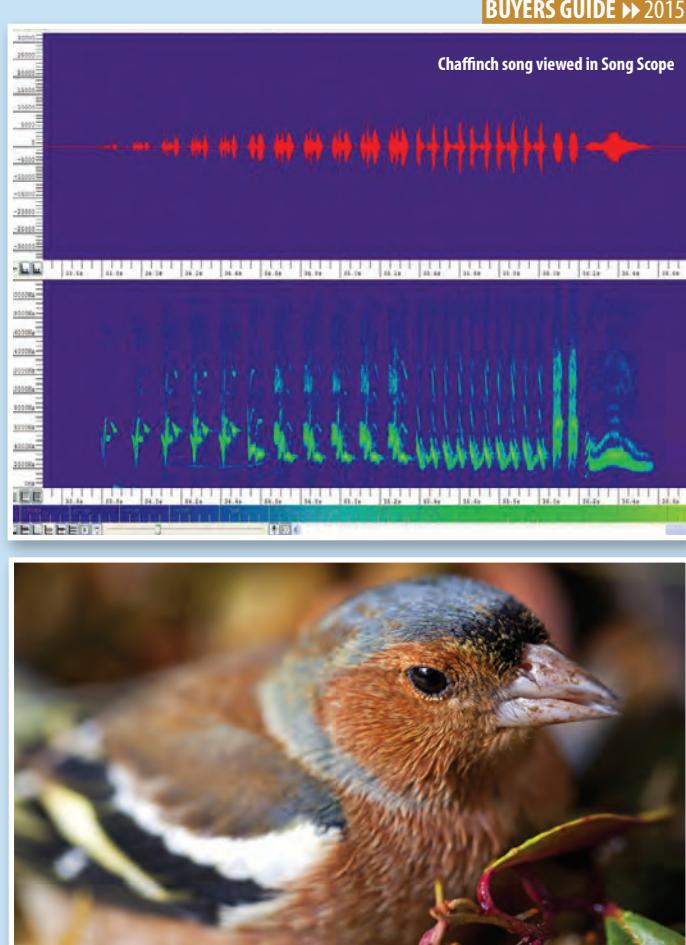


RECORDING DEVICES

Many animals make sounds to communicate with one another and many of these sounds are unique to the species that make them. Consequently, sound recording has become an essential tool for naturalists and conservationists who need to identify and record species whilst causing minimal disturbance. The preservation of wildlife sounds as an art form has also become a popular pastime for a large number of amateur naturalists.

NHBS stocks a wide range of sound recording equipment, including portable handheld recorders, microphones, hydrophones and preamplifiers, as well as accessories such as headphones, tripods and all the cables you need to connect the equipment together. The addition of a software package such as Song Scope and SoundID can help you sift through hours of recordings to pinpoint the calls of specific species or to automatically identify the birds within a dawn chorus (SoundID only), making them ideal tools for professional researchers.

The type of equipment needed will depend largely on your subject and budget. You will also need to make sure that the items you purchase are compatible with each other. This means considering the input and output port / jack types as well as whether your microphone requires power from the recorder (for more advice on choosing equipment, see page 100).



Zoom H1 Handy Recorder

This high quality, easy to use and cost effective sound recorder is ideal for capturing wildlife sounds, field observations and for use with bat detectors. The small and robust design makes it highly portable and it is packed full of a range of useful features. The H1's onboard microphones are configured in an X/Y pattern for stunning stereo imaging with natural depth. The H1 can record both WAV files at 24-bit/96kHz and MP3 files and will take up to a 32GB micro SDHC card. Using USB 2.0 connections the H1 can quickly transfer files to any Mac or PC and 10 hours of continuous recording can be attained with a single AA battery.

	\$	€	£
195592 H1 Handy Recorder	\$122	€107	£79.16
204675 H1 Accessory Pack	\$54	€47	£35.00



Zoom H4n Handy Recorder

The H4n improves on the H2n and combines excellent recording quality with handy onboard editing features. For those interested in listening to and recording the sounds of the natural world, the H4n is ideal for use with a hydrophone or contact microphone. The H4n allows you to record on four channels simultaneously by using the onboard mics with other external mics or direct inputs. Triggered recording let you record only whenever sound above a designated level is detected and a pre-trigger recording buffer records the most recent two seconds of audio in memory, meaning you will never miss the beginning of things you want to record. The rubberised body improves durability and reduces handling noise and the 5cm screen allows easy navigation.

	\$	€	£
209910 H4n Handy Recorder	\$354	€311	£229.17



Zoom H2n Handy Recorder

The H2n Handy recorder is a small and portable recorder which is robust enough for use out in the field. It can be used with its in-built microphones (MS Stereo and 90° XY Stereo) or with an external microphone. It records WAV and MP3 directly to an SD/SDHC card (512MB card included). The optional automatic recording function will turn the recorder on and off when sounds start and stop. Files can be set with a time stamp for subsequent analysis and editing. Two x AA batteries will last for up to 20 hours. The H2n connects to your PC using a USB2.0 connection.

(Prices exclude VAT)	\$	€	£
184062 H2n Handy Recorder	\$186	€164	£120.83



Marantz Professional PMD661 MKII Recorder

The Marantz Professional PMD661 MKII Handheld Recorder is a professional stereo field recorder that offers recording, playback, editing and security features in a compact and rugged unit. The PMD661 offers 'point and shoot' on-board directional microphones, dual XLR inputs for external mics and 48V phantom power for condenser microphones. S/PDIF digital and 3.5mm line inputs are also available. Files can be recorded as WAV or MP3 (up to 24-bit/96kHz) and built-in stereo speakers and a 1.4" headphone jack allow you to listen to recordings in the field. Powered with 4 x AA batteries, this recorder will run for up to 6 hours continuous recording. An included AC adapter enables you to charge rechargeable batteries.

(Prices exclude VAT)	\$	€	£
207023 Marantz PMD661 Recorder	\$579	€508	£374.99



HEADPHONES

Sennheiser HD 205 Stereo Headphones

HD 205 stereo headphones from Sennheiser provide excellent sound quality and shielding of ambient noise. They have rotatable ear cups and a single-side cable for ease and flexibility of use.

(Prices exclude VAT) \$ € £
193904 HD 205 Headphones \$58 €51 £37.49

**Sennheiser HD 280 Pro Headphones**

The HD 250 Pro from Sennheiser are closed-back, circumaural headphones designed for professional monitoring applications. The exceptional 32dB attenuation of external noise makes them particularly useful for use in a high-noise environment and when excellent sound quality is required.

(Prices exclude VAT) \$ € £
193902 HD 280 Pro Headphones \$179 €157 £115.83

**Audio Technica ATH-T200 Headphones**

These ATH-T200 headphones are designed for both high sound quality and user comfort. Earpads help prevent sound leakage and the double headband provides an adjustable fit. Supplied with a 3.5mm mini-plug and 6.5mm adapter.

(Prices exclude VAT) \$ € £
211467 ATH-T200 Headphones \$32 €28 £20.79

**Roland CS-10EM Binaural Microphones/Earphones**

The CS-10EM package from Roland provides combined ear monitoring and binaural recording, making recording on the go easier. Ideal for use with the Roland R-05 field recorder. The microphone is powered by the recorder and the sophisticated enclosure design reduces feedback.

(Prices exclude VAT) \$ € £
193271 Roland CS-10EM \$116 €102 £74.99

► **Roland**- High Quality Sound Recording**Roland R-26 Recorder**

- In-built omnidirectional and directional mics
- Large touchscreen LCD screen
- Record wildlife or sounds from your bat detector

The Roland R-26 Portable Recorder is small and compact yet contains a huge array of professional features, ensuring that your recordings will be of the highest quality. It is ideal for use in the field for capturing wildlife sounds and can also be used in combination with a 3.5mm to 3.5mm cable and bat detector to create great quality recordings of bat calls.

The R-26 has built-in directional and omnidirectional stereo microphones which can be used simultaneously. It also has two XLR/TRS combo mic inputs with 46V phantom power as well as an input for a stereo plug-in powered mic. Simultaneously record on six channels (three stereo channels) using a combination of internal and external microphones.

The large touchscreen LCD screen allows you to customise microphone settings and edit your recordings. Input-level knobs provide fine adjustment control. Powered by 4 x AA batteries (not included) and recordings are saved onto an SD card. A USB cable is also provided for connection to a computer and the included SONAR LE software app provides a recording and editing platform for your PC.

(Prices exclude VAT) \$ € £
214350 Roland R-26 Recorder \$474 €417 £307.50

**Roland R-05 Recorder**

- High quality recording with the built-in stereo microphone or external input
- Records directly to SD card
- Strong, robust metallic exterior

The compact R-05 is easy to use, affordable and packed with lots of features that makes it exceptional for its price. Crystal clear 24/96 capture, enhanced recording and editing features along with an extended battery life (over 16 hours per charge) make this a perfect choice for recording wildlife sounds and for use with bat detectors.

The R-05 provides pristine, uncompressed stereo recording directly to SD card - up to 24-bit/96kHz resolution. Whether recording directly with the built-in stereo mic or capturing sounds from an externally connected microphone or bat detector, you'll be impressed with the R-05's detail and clarity.

Protect your R-05 with the cushion lined carrying pouch.

Also available is a cover and windscreens set which minimises the effects of wind noise and a microphone stand adapter which allows you to connect your recorder to a full size microphone stand.



(Prices exclude VAT) \$ € £
186214 Roland R-05 Recorder \$238 €209 £154.17
186226 Cushion Lined Carrying Pouch \$51 €45 £33.32
193273 Cover and Windscreen Set \$64 €56 £41.66
193269 Microphone Stand Adapter \$26 €23 £16.66

SOUND RECORDER COMPARISON

MODEL	SAMPLING RATE	AUDIO INPUT	AUDIO OUTPUT	RECORDING FORMAT	MEMORY CARD	PLUG IN POWER	PHANTOM POWER	BATTERIES	BATTERY LIFE (RECORDING)	DIMENSIONS
Zoom H1	44.1/48/96kHz	3.5mm stereo	3.5mm stereo	WAV / MP3	SD/SDHC (up to 32GB)	Yes	No	1 x AA	10 hours	44 x 136 x 31mm
Zoom H2n	44.1/48/96kHz	3.5mm stereo	3.5mm stereo	WAV / MP3	SD/SDHC (up to 32GB)	Yes	No	2 x AA	20 hours	68 x 114 x 43mm
Zoom H4n	44.1/48/96kHz	XLR / 3.5mm stereo	3.5mm stereo	WAV / MP3	SD/SDHC (up to 32GB)	No	Yes	2 x AA	6 hours	73 x 156 x 35mm
Roland R-05	44.1/48/88.2/96kHz	3.5mm stereo	3.5mm stereo	WAV / MP3	SD/SDHC (up to 32GB)	Yes	No	2 x AA	16 hours	60 x 103 x 25mm
Roland R-26	44.1/48/88.2/96kHz	XLR / 1/4"TRS / 3.5mm stereo	3.5mm stereo	WAV / BWF / MP3	SD/SDHC (up to 32GB)	Yes	Yes	4 x AA	10 hours	82 x 180 x 41mm
Marantz PMD661 MkII	44.1/48/96kHz	XLR / 3.5mm stereo	RCA stereo / 3.5mm stereo	WAV / MP3	SD/SDHC (up to 32GB)	Yes	Yes	4 x AA	5 hours	93 x 36 x 165mm

WHAT KIND OF MICROPHONE DO I NEED?

The most useful types of microphone for wildlife sound recording are shotgun microphones and parabolic microphones. Shotgun mics, such as the Sennheiser ME66/ME67 and the Roland CS-15S consist of a long tube with holes. These holes are specially arranged to cancel out noise from the sides which makes them highly directional. However, they need to be positioned relatively close to the sound source and a windshield will usually be required. Parabolic microphones collect sound from a large area and focus it onto the microphone, making them extremely sensitive and great for recording quiet sounds over long distances. However, they tend to be large and so will need to be mounted on a tripod. For recording underwater sounds a range of hydrophone options are available and contact microphones will record sounds transmitted through solid objects, such as insect footsteps or the creaking of trees (p102).

IS MY MICROPHONE COMPATIBLE WITH MY RECORDER?

All of the recorders that we sell have either a 3.5mm phone or an XLR input (some have both). When purchasing your microphone it is important to check what the output is and whether it is compatible with your recorder. If not, you will need to purchase an adapter cable. Most microphones also require a power source which, in many cases, can be provided by the recorder via Phantom or Plug-in Power.



WHAT IS PHANTOM AND PLUG-IN POWER?

Phantom and Plug-in Power are ways of transmitting electric current to any microphone that requires power to operate. Phantom power can be 12V, 24V or 48V and is usually transmitted via an XLR connector. Plug-in power is a lower current 3V–5V supply, most often provided at a 3.5mm line in jack. If power cannot be provided from the recorder then a powering module (such as the Sennheiser K6) can be used to provide phantom power from its internal AA battery.

DO I NEED A PREAMPLIFIER (PREAMP)?

When recording wildlife, sounds are often extremely quiet. A preamplifier helps with this by amplifying the microphone level, typically by around 20–40dB, before the signal is fed to the recorder. This amplification is extremely low noise and means that you can turn down the microphone level of your recorder, which will be useful if your recorder's own preamp is noisy.



Røde NT1-A Microphone

The NT1-A is a 2.5cm condenser microphone with a frequency range of 20Hz–20kHz. It has an XLR output and is powered by 12V or 48V phantom power. The NT1-A comes with shock mount with detachable pop filter, 6m shielded XLR cable and microphone dust cover. Available as a single microphone or as a matched pair. The matched pair is supplied with two of each of the included accessories.

	\$	€	£
219435 Single	\$179	€157	£115.83
219437 Matched pair	\$384	€338	£249.17



Hi-Sound 712 Parabolic Microphone

This highly directional microphone will pick up quiet sounds from over a long distance, making it ideal for nature recording. The dual microphone has both omni-directional and uni-directional microphone sensors and audio range is 100Hz–20kHz. Output is via a stereo 3.5mm mini-jack on a 1m cable. The dish has an outer diameter of 53cm and a focus depth of 12.5mm and the comfortable foam grip also has a tripod mount in the base. Plug-in power required.

	\$	€	£
216724 Hi-Sound 712	\$545	€479	£353.33
217278 Windscreen	\$50	€44	£32.50



XLR Cables

	\$	€	£
193698 XLR Female/ Mono 3.5mm Mini-Jack	\$26	€23	£16.66
193699 XLR Female/ Stereo 3.5mm Mini-Jack	\$26	€23	£16.66
221558 XLR Female/XLR Male 1m	\$8	€7	£4.99
221559 XLR Female/XLR Male 10m	\$17	€15	£11.25



Røde NT4 Stereo Microphone

The NT4 has a matched pair of condenser microphone capsules fixed in a 90° alignment. This provides an excellent X-Y stereo array without the need for two separate microphones. A dual power option lets you power it using either a 9V battery or 48V phantom power. Both XLR and 3.5mm cables are provided, allowing you to use it with either a mixing console or a mini handheld recorder. A custom windshield and case are included.

	\$	€	£
219436 NT4	\$397	€349	£257.50



Røde iXY Stereo Microphone

The iXY provides up to 24-bit/96k recording for the iPhone. Featuring a matched pair of 1/2" cardioid condenser capsules, fixed in a perfect 90° near coincident alignment, the iXY produces excellent quality stereo recordings which are rich and accurate. The metal casing is extremely durable and also protects from electromagnetic interference. Connects to the iPhone using a lightning connector and supplied with a foam windshield and a protective zip case. Compatible with the iPhone 5, 5s, 5c, 6 and 6plus.

	\$	€	£
219478 iXY	\$179	€157	£115.83



Roland CS-15S Stereo Microphone

For serious field recording, the CS-15S cardioid-type stereo microphone is both economical and perfect for use with the R-05 stereo recorder. For portability and convenience the CS-15S uses phantom power, which means that power is supplied directly from the R-05. Battery operation is also possible, when using the microphone with a recorder that does not supply power. Bundled with the microphone are a desktop stand, a hand-held mount and a windshield.

	\$	€	£
177017 CS-15S Stereo Microphone	\$154	€136	£99.99



CHOOSING AND USING AN ME66/67 SYSTEM

Sennheiser condenser microphones are directional so you can record sounds at a greater distance from your subject than with a normal microphone. The ME66 Short Gun Microphone is suitable for recording birds and smaller animals which can be approached closely such as insects or amphibians. The ME67 Long Gun Microphone is more directional for recording birds or mammals from a greater distance. The K6 Power Module powers the microphone and comes with a MZQ200 microphone clamp for connecting the microphone to a boom. A pistol grip mount lets you hold the microphone in the hand. The windshields are necessary to protect the microphone from extraneous noise due to the wind and are essential if you are recording in the field in an open location such as the coast, moorland or grassland. You will also need a cable to connect the K6 Powering Module (XLR Female) to your recording device.

Sennheiser ME66 Short Gun Microphone

Ideal for recording smaller animals which can be approached closely, such as insects or amphibians. A condenser microphone featuring super-cardioid/lobar pick up pattern, low inherent self-noise, high sensitivity and wide frequency response of 50–20,000kHz.

A K6 power module is required to power the microphone and you will also need an XLR cable to connect to your recording device. An optional windshield protects the microphone from extraneous noise when recording in an open outdoor location.

The ME66 is also available as a Basic or Professional Package. These contain the ME66 microphone, a K6 power module, windshield (Sennheiser MZW66 in basic package, Rycote Softie in professional package) and a connecting cable.

The professional kit also comes with a Rycote pistol grip shockmount.

(Prices exclude VAT) \$ € £

193406 ME66 Microphone \$251 €220 £162.50

193404 K6 Powering Module \$296 €260 £191.67

Accessories

(Prices exclude VAT) \$ € £

193696 MZW66 Windshield \$60 €53 £39.16

193697 MZW66 Pro Windshield \$91 €80 £59.16

193900 Rycote Softie ME66 Windshield and Pistol Grip Mount \$257 €226 £166.66

Packages

(Prices exclude VAT) \$ € £

193898 Basic Package \$617 €542 £400.00

193899 Professional Package \$814 €715 £527.49



Sennheiser ME67 Long Gun Microphone

More directional than the short gun microphone, the ME67 is recommended for recording birds or mammals. A condenser microphone featuring super-cardioid/lobar pick up pattern, low inherent self-noise, high sensitivity and wide frequency response of 50–20,000kHz.

A K6 power module is required to power the microphone and you will also need an XLR cable to connect to your recording device. An optional windshield protects the microphone from extraneous noise when recording in an open outdoor location.

The ME67 is also available as a Professional Package. This contains the ME67 microphone, a K6 power module, Rycote Softie windshield, Rycote pistol grip shockmount and a connecting cable.

(Prices exclude VAT) \$ € £

193407 ME67 Microphone \$341 €299 £220.83

193404 K6 Powering Module \$296 €260 £191.67

Accessories

(Prices exclude VAT) \$ € £

193408 MZW67 Pro Windshield \$153 €134 £99.17

193901 Rycote Softie ME67 Windshield and Pistol Grip Mount \$289 €254 £187.50

Packages

(Prices exclude VAT) \$ € £

193405 ME67 Professional Package \$900 €791 £583.33



Rycote Softie windshield & Pistol Grip Mount



K6 Powering Module



MZW66



MZW66 Pro



MZW67 Pro



FEL Microphone Preamplifier

These FEL Microphone Preamplifiers provide 20dB of amplification and are designed for use with portable recorders having a 3.5mm input. No batteries are required for use as they run off plug-in power which is provided by the recorder. Useful for low noise recording where the recorder's own preamp may not be powerful enough, or where the microphone input is noisy. The cable is 1m in length and has a 3 pin XLR connector for connection to the microphone and a 3.5mm plug for connection to the recorder. Available in a mono or stereo version. These preamps do not provide power to the microphone.

(Prices exclude VAT) \$ € £

219344 Mono \$100 €88 £64.58

219345 Stereo \$170 €150 £110.42



FEL Mini MicBooster Microphone Preamplifier

The Mini MicBooster provides 20dB of microphone level gain. It is powered by 48V phantom power which it will then pass onto the microphone. No batteries are required - just plug it in and you are ready to record. Particularly suitable for use where a low output microphone is used with a recorder which has inadequate gain or a noisy built-in preamp. The MicBooster has a strong Neutrik alloy case and panel-mount Neutrik XLR connectors which are suitable for mating with cable connectors.

(Prices exclude VAT) \$ € £

219384 Mini MicBooster \$177 €155 £114.58

Velbon Sherpa 200R Tripod

The Velbon 200R Tripod is manufactured from aluminium and is lightweight, stable and easy to use. It is equipped with the three-way panhead PH157Q with quick release platform system that incorporates a one-touch handle. This allows locking of both pan and tilt movements with one twist. The handle is mounted on the left which allows the user to keep their right hand free to operate the recorder or microphone. Hard wearing and features a manual slide elevator to adjust height of the centre column.



(Prices exclude VAT) \$ € £

202321 Velbon Sherpa 200R Tripod \$96 €85 £62.50

HYDROPHONES

BUYERS GUIDE ▶ 2015

HYDROPHONES

Hydrophones allow you to listen to and record the multitude of sounds that occur beneath the surface of the water. They are used by professionals for surveys, scientific research and wildlife documentaries. Professional surveys frequently take place over weeks or months and require equipment which can be left out in the field indefinitely. The SM3M is a submersible hydrophone which also includes a digital recorder and large battery storage, making it suitable for extreme offshore environments (see page 103).



Hydrophone / Contact Microphone

This hydrophone is used for all kinds of underwater listening and recording and can also be used outside of water as a contact microphone. It is rugged enough to be safely frozen or boiled making it suitable for use in all kinds of environments. This is a true stereo, passive hydrophone made with a shielded black cable, 27mm doubled brass piezo head coated in black non-toxic rubber and a stereo 3.5mm male output plug on a 305cm cable.

(Prices exclude VAT)

208101 Stereo Hydrophone

\$	€	£
\$90	€79	£58.33

Condenser Hydrophones

These active condenser hydrophones are tiny and tough and great for all kinds of underwater listening. Constructed from a shielded waterproof cable, a high quality metal output plug (3.5mm male jack) and weighted copper head. They will capture even the quietest ambient water sounds, including those in the ultrasonic range. These hydrophones are low noise and high sensitivity with a frequency response range of 20–20,000Hz and a useable frequency up to 100kHz.

Requires standard 2–9V plug-in power. Available in a mono or stereo version.

(Prices exclude VAT)

208072 Mono Condenser Hydrophone

\$	€	£
\$103	€90	£66.67

208074 Stereo Condenser Hydrophone

\$	€	£
\$116	€102	£75.00



Buffered XLR Hydrophone

This active piezoelectric hydrophone is made with a shielded clear waterproof cable and a weighted copper head coated in non-toxic durable black rubber. Requires standard 48V phantom power and terminates in a high quality male 3-pin XLR output. The low noise preamp built into the head lowers the impedance and provides 3dB of amplification, giving you a louder, wider and more natural sounding frequency response. Lightweight, durable and fully waterproof. Unbalanced. Cable length is 1.5m.

(Prices exclude VAT)

209055 Buffered XLR Hydrophone

\$	€	£
\$180	€158	£116.67



For the amateur naturalist, however, a large range of hydrophones are available which are economical and portable enough to delve into the fascinating realm of the underwater soundscape. All of the hydrophones featured on this page will plug directly into a handheld recorder via either a 3.5mm mini jack or XLR connector making them ideal for use in the field. A kit is also available which contains everything you need to get started recording underwater. For our range of handheld recorders please see page 98–99.



Hydrophone Kit

The NHBS Hydrophone Kit provides you with everything you need to access the amazing world of underwater sound. Either record the sound with the H1 digital recorder or listen directly using the speaker on the H1 or with a pair of headphones. Perfect for listening to life in rock pools, ponds, the sound of a stream gurgling or even the open ocean. The hydrophone kit includes an H1 digital recorder and a mono Condenser Hydrophone.

(Prices exclude VAT)

202789 Hydrophone Kit

\$	€	£
\$225	€198	£145.83



Max 235 Waterproof Case

These robust Max 235 carry cases are ideal for all sorts of field equipment and will keep contents safe from water and impact damage. Waterproof to IP67 standards, an automatic pressure release valve deals with changes in pressure. The soft grip handle is designed to deal with extremely heavy loads and holes are provided for padlocks. The bottom of the case is filled with "pick and pluck" foam which can easily be cut to fit your equipment and the inside of the lid is fitted with convoluted foam. The standard size has internal dimensions of 235 x 180 x 106mm and the deep has internal dimension of 235 x 180 x 156mm.

(Prices exclude VAT)

221186 Standard

\$	€	£
\$66	€58	£42.46

221188 Deep

\$	€	£
\$71	€62	£45.79



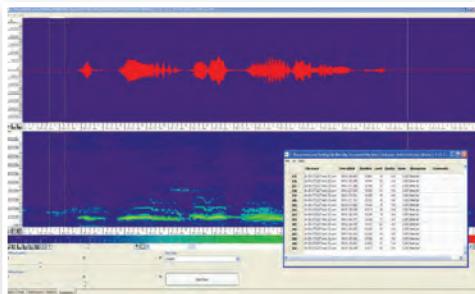


SM3M Submersible Recorder

The Song Meter SM3M Marine Recorder

is a submersible 32-bit digital recorder designed for long or short term deployment in fresh or salt water to depths of up to 150m. Like the terrestrial SM3 package, the SM3M features flexible scheduling, extremely low power consumption, pristine digital recording quality and ease of use. A Deep Water option is also available which has an anodised aluminium housing and is designed for extreme offshore environments at depths of up to 1000m.

The SM3M housing is sealed for underwater use with a screw top containing two O-rings. The electronics simply slide into the housing and are held firmly in place when the top is tightened. The unit is designed to allow quick refurbishment of the device shipside for immediate redeployment; the batteries and SD flash cards can be easily swapped and the housing resealed. It may be anchored and recovered via a tether, diver or optional acoustic release.



Song Scope Bioacoustics Software

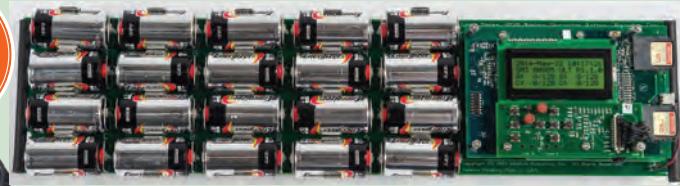
Song Scope software is a powerful tool to help you efficiently review recordings made using your Song Meter (SM2+ or SM2BAT+) or other recording equipment. At the core of Song Scope is a spectrogram viewer that lets you scroll through audio files (up to 2GB) to visually inspect spectrograms of long recordings. With practice, you will begin to recognize the visual patterns corresponding to the vocalizations you are interested in. Viewing audio files as spectrograms with your eyes is typically 10–20 times more time efficient than to the same recordings with your ears. Of course, you can always play selected samples of the recordings in Song Scope to let your ears help with identification.

The new 'Song Scape' capability also allows you to visualise sounds on large temporal scales. This provides a visualisation which is similar to a spectrogram but with the horizontal axis measuring months and years instead of seconds. This feature is a fantastic way at looking at the acoustic patterns that can be 'observed' over long time periods. Recent improvements to this software include improved WAC file management, analysis of user-selected regions, bandpass filtering, faster scanning with recognisers and new playback speeds. Song Scope is compatible with both Windows and Mac, please tell customer services which version you require when ordering.

(Prices exclude VAT)

18875 Song Scope Bioacoustics Software

\$386 €339 £249.99



The SM3M is available with a choice of hydrophones. The standard hydrophone has a recording bandwidth of 2Hz–48kHz and the ultrasonic hydrophone has a recording bandwidth of 2Hz–192kHz. The Low-Noise Hydrophone is excellent for recording ultra-quiet environments. It has a much lower noise floor than the standard hydrophone and has a recording bandwidth of 2Hz–48kHz. The High-SPL Hydrophone is specifically tailored to recording high sound pressure levels such as those produced by pile drivers and air guns. Recording bandwidth is 2Hz–48kHz.

A high quality case is provided for storage and transportation.

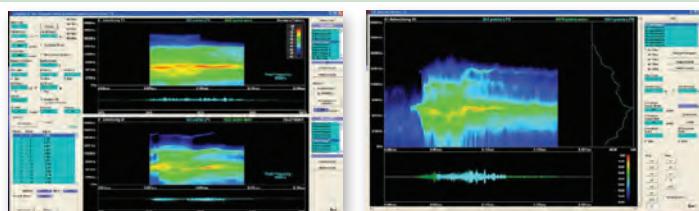
SM3M Recorder

(Prices exclude VAT)

	\$	€	£
215988 Standard Hydrophone	\$7,765	€6,824	£5,032.50
215989 Ultrasonic Hydrophone	\$10,904	€9,582	£7,066.67
215990 Low Noise Hydrophone	\$10,381	€9,122	£6,727.50
215991 High-SPL Hydrophone	\$7,765	€6,824	£5,032.50

SM3M Deep Water Recorder

	\$	€	£
215992 Standard Hydrophone	\$12,771	€11,223	£8,276.67
215993 Ultrasonic Hydrophone	\$15,917	€13,988	£10,315.83
215994 Low Noise Hydrophone	\$15,391	€13,526	£9,975.00
215995 High-SPL Hydrophone	\$12,771	€11,223	£8,276.67



SoundID Screen Shots

SoundID Sound Recognition Software

SoundID is a PC based sound recognition system which is ideally suited to bioacoustic applications such as animal surveys and other ecological studies. It works by using algorithms to compare sounds from a recording, or series of recordings, with those in a reference library. These reference calls are collated from samples of original calls which can be cut from .WAV files using any sound editing software or by the sound editor that comes with SoundID.

On a reasonable quality computer (e.g. a 3GHz PC), SoundID will typically analyse files at a rate that is 100x faster than real time. The software also imposes no limit on how many reference sounds can be run at any one time and these references can be completely different. For example, it is possible to search for bats, crickets and birds simultaneously from the same recording. A summary of species and number of calls recorded can then be produced.

The Professional version of SoundID has all the great features of the Standard version but with some added extras which make it even more convenient to use, when dealing with long or numerous sound files. A batch processor allows large collections of recordings to be searched with just a few clicks and an auto-reference file cutter allows large files (such as an entire CD) to be cut into individual reference files in minutes. It also comes with an email support service.

SoundID is only compatible with Windows (or newer Mac versions which have Windows compatibility). A minimum of 1GB memory is required.

(Prices exclude VAT)

202006 SoundID Standard Software

202007 SoundID Professional Software

\$195 €172 £126.66
\$733 €644 £475.00

PASSIVE ACOUSTIC RECORDERS

► Wildlife Acoustics - Professional Bat Detectors made in the USA

NEW

Song Meter SM3 Acoustic Recorder

- 3 year warranty
- Easy-access battery tray and SD card hatch
- LCD screen and external setup

The Song Meter SM3 Recorder improves on the popular Song Meter SM2+ and provides a high quality platform for bioacoustic recording. The SM3 has a strong aluminium



case which provides excellent weatherproofing and is able to withstand the toughest conditions. A built-in mounting panel makes it easy to deploy and the new easy-access battery tray and SD card hatch mean that changing batteries and cards in the field is much quicker and does not require any tools. The user interface consists of an LCD screen and button membrane which are both immediately accessible and a one-press status button provides a quick way to check battery levels, temperature, SD card capacity and recording state. The SM3 has an auto-setup function which allows for immediate recording straight out of the box.

The SM3 has two recording channels and two weatherproof microphones (20Hz–20kHz) are integrated into the unit. Meta-data, including gain and program details are embedded into the recordings making it easy to access all the information you require when analysing your files. Files are saved onto SD, SDHC or SDXC cards and the unit will accept a maximum of four cards simultaneously. The unit is powered using four internal D-cell batteries and it is also possible to power the unit using an external battery which requires an additional power cable.

The SM3 comes with two integrated acoustic microphones. An external microphone with 3m cable and 10m and 50m extension cables can be purchased separately. A hydrophone with 20m cable is also available.

(Prices exclude VAT)

	\$	€	£
212524 Song Meter SM3	\$1,030	€905	£667.70
212525 SM3 Microphone (3m Cable)	\$257	€226	£166.67
212192 Microphone Extension Cable: 10m	\$135	€119	£87.50
212193 Microphone Extension Cable: 50m	\$256	€225	£165.83
212184 Hydrophone (20m Cable)	\$963	€846	£624.17
212185 SM3 External Power Cable	\$103	€90	£66.67
212183 SM3 GPS Option	\$384	€338	£249.17



SM2+ Terrestrial Acoustic Package

- Weatherproof enclosure
- Designed for passive monitoring
- Program with complex recording schedules

The SM2+ can be easily programmed to record on simple time-of-day schedules or to implement the most complex monitoring protocols, even scheduling recordings relative to local sunrise, sunset and twilight. Filenames are time-stamped and include a programmable prefix to uniquely identify recordings made from each SM2+. Files can be recorded in standard uncompressed WAV format or WAC format. The WAC format also supports triggers that can be set up independently on each channel to only record when acoustic events occur.

Powered by four D-size batteries which will record up to 240 hours spread out through months at a time. Field tests indicate you can expect 9–10 days of recordings based on 12 hours per day using normal good quality batteries.

This can be extended by using solar panels or an external battery pack. The SM2+ Terrestrial Acoustic Package includes two SMX-II weather resistant acoustic microphones (frequency response: flat 20Hz–20kHz). Microphone extension cables and a GPS option, which will geotag all recorded calls, are available to purchase separately (see page 27). When used with the hydrophone (also available separately, see below) the SM2+ can also be used to record underwater sounds such as signals from fish or cetaceans.

(Prices exclude VAT)

	\$	€	£
187947 SM2+ Package	\$835	€733	£540.83
188039 Microphone (SMX-II)	\$67	€59	£43.33

Wildlife Acoustics Hydrophones

Use your SM2+, SM2BAT+, SM3 or SM3BAT to record sounds made by arthropods, cetaceans, and fish underwater. The Hydrophone has a 20m cable and frequency response from 2Hz to 40kHz (flat to +/- 1dB).



Hydrophone attached to SM2+ (not included)

(Prices exclude VAT)

	\$	€	£
200985 SM2 Hydrophone	\$810	€712	£525.00
200985 SM3 Hydrophone	\$963	€846	£624.17

SM2 Acoustic Night Flight Call Microphone (SMX-NFC)

The SMX-NFC is a weatherproof microphone which can be used with the SM2+ and is designed especially for recording distant night flight calls in the sky whilst attenuating sounds from insects and amphibians.

The microphone capsule is mounted near the surface of a flat horizontal plate creating a pressure zone for sounds originating from above the plate. The design delivers flat frequency response up to 11 kHz and 3–6 dB signal gain with a beam angle of 125 degrees. For best results, the SMX-NFC would be mounted on a rooftop or high on a pole to keep it away from crickets and amphibians at ground level.

(Prices exclude VAT)

	\$	€	£
200984 SM2 Acoustic Night Flight Call Microphone (SMX-NFC)	\$193	€170	£125.00

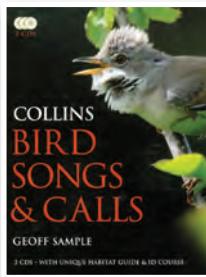


Collins Bird Songs and Calls

Geoff Sample (2010)

A unique beginner's guide to birdsong. Let Geoff Sample's friendly voice guide you through different habitats introducing the typical birds you are likely to hear in each. This edition of the established classic features all digital recordings and includes a third CD containing a unique ID course in 12 monthly sessions.

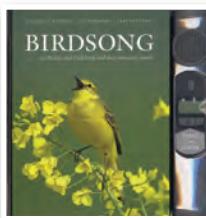
183953 HBK and CDs \$46 €41 £29.99

**Birdsong: 150 British and Irish Birds and Their Amazing Sounds**

Jonathan Elphick et al. (2012)

Listen to the amazing variety of birdsong that enriches our environment simply by opening this book. Delve into the absorbing text and beautiful photographs of each of the 150 birds whilst listening to their song and calls using the integrated sound module.

195837 HBK and Sound Module

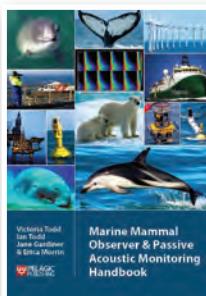


\$46 €41 £29.99

Marine Mammal Observer and Passive Acoustic Monitoring Handbook

Victoria Todd et al. (2015)

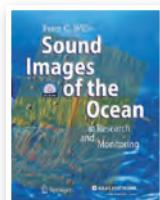
The ultimate instruction manual for mitigation measures to minimise man-made acoustical and physical disturbances to marine mammals from industrial and defence activities. This is a long-overdue reference guide that seeks to improve standards worldwide for marine operations.

209025 PBK \$62 €54 £39.99
209026 HBK \$93 €81 £59.99**Sound Images of the Ocean: in Research and Monitoring**

P Wille (2005)

Offers a comprehensive overview of acoustic imaging applications in the fields of marine research, utilisation, surveillance and protection. Employs 400 sound images of the sea floor contributed by more than 120 marine experts from 22 nations. The included CD enables you to explore acoustic images and includes animations, underwater flights and sound tracks.

154909 HBK and CD-ROM \$236 €207 £153.00

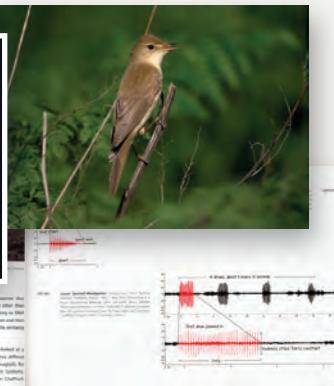
**BirdVoice**

BirdVoice records and plays back bird calls, songs or even your own voice. By touching the pen to any programmed "sound spot" it plays back the songs and calls of the chosen birds. It also enables you to programme "sound spots" with your own recordings. In addition to the Birdvoice it includes a British Bird Guides folder, foldaway field guide, 80 page diary, 56 sound enabled stickers, a quiz set and a set of sticky recordable labels.

181557 BirdVoice \$214 €188 £139.00

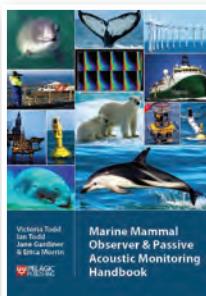
The Sound Approach to Birding

Mark Constantine (2006)



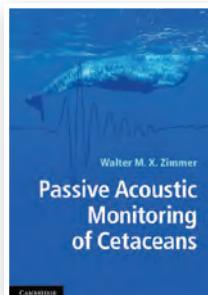
Combining anecdote, scientific theory and practical field experience, The Sound Approach to Birding is a step-by-step guide through tone, pitch, rhythm, reading sonograms, acoustics and using sound to sex and age birds. It explains how bird sounds are often the first indication of previously unrecognised taxonomic splits, and explains how to identify them. Includes two CDs with over 200 bird song samples.

163551 HBK and CDs \$59 €52 £37.99

**Passive Acoustic Monitoring of Cetaceans**

Walter MX Zimmer (2011)

This book provides an integrated approach to passive acoustic monitoring; combining physical principles, discussion of technical tools and application-oriented concepts of operations. Also includes information on the use of Matlab to generate figures and results. Aimed at graduate students and researchers.

213951 PBK \$46 €41 £29.99
189471 HBK \$105 €92 £67.99**Fish Bioacoustics**

Jacqueline F Webb et al. (2008)

Fish Bioacoustics is a definitive volume on fish auditory systems and will interest investigators in both basic research of fish bioacoustics as well as investigators in applied aspects of fisheries management. Also includes information on the use of sound to detect and locate fish.

170625 HBK



\$154 €135 £99.50

Insect Hearing and Acoustic Communication

Berthold Hedwig (2013)

A comprehensive selection of recent studies addressing insect hearing and acoustic communication. Across a variety of hearing species like moths, crickets, bush-crickets, grasshoppers, cicadas and flies, the leading researchers in the field cover recent scientific progress and address key points in current research.

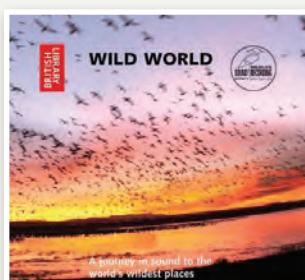
208500 HBK \$194 €171 £126.00

**Wild World: A Journey in Sound to the World's Wildest Places (2CD)**

Wildlife Sound Recording Society (2011)

Experience the great wealth of wildlife on our planet through a journey in sound. In partnership with the Wildlife Sound Recording Society, the British Library is proud to present this 2CD set of recordings from across the globe. The 22 recordings, all made by WRS members, come from locations as diverse as Great Britain, Germany, Hungary, Cyprus, Sweden, Australia, Borneo, Malawi, Madagascar, Canada and Venezuela.

196433 CD \$25 €22 £16.00



USING HUMANE TRAPS

BUYERS GUIDE ► 2015

Check regularly - All our traps are 'live catch' traps which should be checked regularly and water, food, and bedding provided where appropriate. A handful of straw provides adequate bedding in most instances whilst foods provided should include a mixture such as chopped apples, carrots, and blowfly pupae (buy these from your local fishing shop).

Legal requirements - Some small mammal species are protected by law (eg. shrews in the UK) and you must obtain a licence from NE, SNH or CCW if you set traps with the intention of trapping any species of shrew. Please ensure you are aware of, and meet the requirements specified, of any relevant laws in the country you are in.



Longworth Mammal Trap

•Adjustable trigger sensitivity

•Nest box can be tilted

This cleverly-designed aluminium trap is strong, lightweight and corrosion-resistant. The large nest box has plenty of room for food and bedding to ensure that the trapped animal is comfortable until release and can be positioned at an angle to prevent rain from entering.



The modular design of the trap means not only is it easy to clean, but the tunnel can be placed inside the nest box when not in use for easy carriage and compact storage. The trigger sensitivity is adjustable.

Nesting area 140 x 65 x 85mm. Total trap length when set 250mm. Available with or without small hole in the trap which allows shrews to escape.

(Prices exclude VAT)

	\$	€	£
176703 Longworth Trap	\$75	€65	£48.29
176704 Longworth Trap with Shrew Hole	\$75	€65	£48.29

Sherman Folding Trap

•Fold down for easy transportation

•Available in a range of sizes and weights

These easily-collapsible traps are lightweight and fold flat for storage or expeditions. Ensure that you choose a trap long enough for the intended animal, as tails may catch in the strong door.

Traps are also available with perforated sides for an additional fee of £2.00. Please be aware, however, that these are made to order and so may take longer to supply.

(Prices exclude VAT)

	\$	€	£	
193830 Small Folding Aluminium	50 x 65 x 165mm	\$26	€23	£16.66
193831 Small Folding Galvanised	50 x 65 x 165mm	\$26	€23	£16.66
193836 Small Folding Aluminium Long	50 x 65 x 230mm	\$28	€25	£18.33
193832 Large Folding Aluminium	75 x 90 x 230mm	\$28	€25	£18.33
193833 Large Folding Aluminium/Galvanised	75 x 90 x 230mm	\$28	€25	£18.33
193834 Large Folding Aluminium Heavy Duty	75 x 90 x 230mm	\$30	€26	£19.16
193835 Large Folding Galvanised	75 x 90 x 230mm	\$27	€24	£17.49
193837 Extra Large Folding	75 x 90 x 305mm	\$37	€33	£24.16
193838 Extra Large Folding 15"*	100 x 115 x 380mm	\$48	€42	£30.83

*Recommended for water voles

NHBS Water Vole Trap

•High quality Sherman Trap entrance tunnel

•Spacious nesting compartment

Water vole (*Arvicola terrestris*) numbers have declined dramatically in the past 30-40 years and their future survival is now uncertain. Since 1998 they have been covered under Schedule 5 of the Wildlife and Countryside Act.



The NHBS Water Vole Trap comprises an Extra Large Folding Sherman Trap (75 x 90 x 305mm) tunnel with sprung entrance and treadle and a spacious wooden nesting compartment. The rear door of the Sherman Trap entrance tunnel has been removed to provide access to the nesting compartment. The nesting compartment is constructed from 9mm thick marine ply from FSC sources. The trap is suitable for catching water voles for monitoring purposes, such as when conducting capture, mark, recapture studies. It can also be used to catch water voles for relocation. Nest box dimensions: 240 x 180 x 180mm.

(Prices exclude VAT)

	\$	€	£
212577 Water Vole Trap	\$53	€46	£34.16

DORMOUSE SURVEY

Dormouse nest tubes provide a simple and economical method of determining the presence of dormice within a habitat.



This is often an important step before any development of potential dormouse habitat is approved for population studies and also prior to installing wooden nest boxes (for dormouse boxes, please see page 56).

Please note: Dormice are legally protected under the Wildlife & Countryside Act 1981 and must not be handled unless you have a licence to do so. Nest tubes can be set up and checked without a licence until the first dormouse is found. After that only a licensed handler can check them.



Dormouse Nest Tubes

The nest tube consists of two parts - the wooden 'tray' and the 'nesting tube' (also available separately). The tray, made from 3-ply, fits securely inside the nesting tube (made from plastic tree guard material), with a wooden block sealing the tube at one end. Tubes can be easily assembled in the field and are secured to tree branches using cable ties. Our design features flip-out tabs through which cable ties can be threaded, and which enable tubes to be more easily and securely attached to branches. Tubes are available either singly or in quantities of 10 or 100. Cable ties measuring 9 x 710mm are also available in packs of 100 or 1000.

(Prices exclude VAT)

	\$	€	£
199062 Nest Tube - Single	\$3	€3	£1.92
199063 Nest Tube - Pack of 10	\$28	€25	£18.33
199064 Nest Tube - Pack of 100	\$270	€237	£175.00
197531 Cable Ties - Pack of 100	\$31	€27	£19.99
197532 Cable Ties - Pack of 1000	\$303	€267	£196.66

BEST SELLER

Mole Master

A very effective trap which is simply placed in the mole tunnel and will catch a mole entering either end of the trap. Made of plastic ensuring no corrosion. No bait required. This is a 'live catch' trap which should be checked regularly.



	\$	€	£
180568 Single Trap	\$23	€20	£14.99
180569 Ten Traps	\$225	€198	£145.83

Heavy Duty Polythene Bags

These heavy duty bags are perfect for small mammal surveys as well as holding soil, water and other samples. 60cm x 90cm.



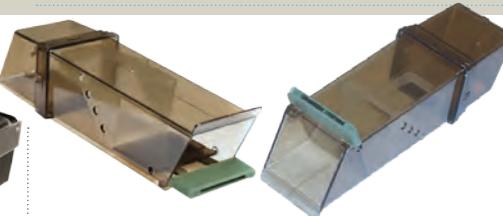
	\$	€	£
201467 Single Bag	\$1	€1	£0.58
201468 Pack of 10 Bags	\$8	€7	£5.41



DialMax Vernier Dial Caliper

Lightweight 150mm analogue Vernier calipers suitable for taking measurements from small mammals, birds and reptiles. They are manufactured from non-metallic material with a 50% fiberglass content and have a 0.1mm scale. The impact-resistant dial can be recalibrated to zero.

	\$	€	£
202858 Vernier Dial Caliper	\$33	€29	£21.66



Economy Mammal Trip Trap

The Trip Trap is an economical and lightweight small mammal trap. The Trip Trap is easy to bait and set, with plenty of ventilation to ensure minimum stress to the catch.

It is essential that this trap is checked regularly, both to ensure the welfare of the animal and to prevent the plastic body from being damaged by gnawing species such as woodmice.

	\$	€	£
186142 Economy Trip Trap	\$5	€4	£2.92

Animal Handling Gloves

Nylon and nitrile ultra-light gloves designed for both safety and dexterity. Popular for work with bats and other small mammals.



	\$	€	£
180464 Small	\$6	€5	£4.04
180465 Medium	\$6	€5	£4.04
180466 Large	\$6	€5	£4.04
180467 Extra-Large	\$6	€5	£4.04



Digital Caliper

Hardwearing stainless steel/polycarbonate digital calipers. Suitable for taking measurements from small mammals. Will measure in mm and inches and supplied with vinyl pouch.

	\$	€	£
180586 Digital Caliper	\$34	€30	£22.16

Marking Flags

(Prices exclude VAT)

	\$	€	£
199413 Red (Pack of 10)	\$3	€2	£1.66
199412 Red (Pack of 100)	\$22	€19	£14.16
199419 Yellow (Pack of 10)	\$3	€2	£1.66
199418 Yellow (Pack of 100)	\$22	€19	£14.16



Biodegradable Marking Tape

(Prices exclude VAT)

	\$	€	£
206246 Red	\$6	€5	£3.75
206250 Yellow	\$6	€5	£3.75
206224 Blue	\$6	€5	£3.75
206245 Green	\$6	€5	£3.75
206249 White	\$6	€5	£3.75



Pesola Spring Scale

The Pesola LightLine 50g Spring Scale is light and portable and is perfect for weighing most small mammals in the field. For our full range of Spring Scales see page 130-131.

(Prices exclude VAT)

	\$	€	£
176690 Pesola LightLine 50g	\$35	€31	£22.92



Lightweight Holding Bag

This lightweight holding bag is made from white cotton and is suitable for both small mammals and birds. It measures 20 x 30cm and has a drawstring top.

(Prices exclude VAT)

	\$	€	£
193382 Lightweight Holding Bag	\$2	€2	£1.24

ANIMAL TRAPS & SURVEY

Badger Bait Marking Pellets

Badger bait marking surveys are used to establish the size and boundaries of badger territories. Surveys are conducted by providing food (usually peanuts and syrup) mixed with coloured plastic markers at a main badger sett (or setts). As badgers mark the boundaries of their territory with dung pits or latrines, the distribution of defecated pellets can be used to study territorial limits of social groups. Bait surveys should ideally be conducted in Spring as peak territorial marking activity occurs at this time. If necessary surveys may also be conducted in Autumn.

These marking pellets are manufactured from food grade plastic and are 2mm in diameter. Pellets are available in five colours and are sold in 1kg bags.

	\$	€	£
210611 Blue	\$15	€14	£10.00
210612 Green	\$15	€14	£10.00
210613 Yellow	\$15	€14	£10.00
210614 Red	\$15	€14	£10.00
210615 White	\$15	€14	£10.00



Badger Vaccination Trap

This heavy duty Badger Trap is manufactured in Britain and is designed to FERA's (Food & Environment Research Agency) specifications for the live capture of badgers for vaccination. The trap has a green powdered coating and a unique fail-proof door mechanism. Please note that badgers and their setts are protected under the Protection of Badgers 1992 which makes it an offence to kill or take a badger, except under licence. Dimensions: Length 112cm x width 36cm x height 36cm.

	\$	€	£
212751 Badger Trap	\$126	€111	£81.67

Mink Raft

This British made Mink Raft is approved by the Game & Wildlife Conservation Trust. It is made from high quality metal with green powdered coating and includes everything you need to make a tracking cartridge. Includes 1kg buff stoneware clay, 500g kiln-dried sand, 25cm plastic basket, 230 x 110 x 80mm block of floral foam ("oasis"). Dimensions: Length 120cm x width 60cm x height 25cm. A Tracking Cartridge Refill Kit is also available.

	\$	€	£
212752 Mink Raft	\$96	€85	£62.50
218528 Cartridge Refill Kit	\$8	€7	£5.00



Fox Trap

A heavy-duty galvanised wire cage for the humane trapping of foxes or similar sized animals. Bait is placed beyond the plate on the floor of the cage, and the door is closed when the animal steps on the plate, safely trapping it inside. The trap has carry handles on the top and is supplied flat-packed. Full assembly instructions are included. This trap must be checked regularly to minimise stress to the animal and users should be aware of any relevant laws in the country they are in.

W 47.5mm H 52.5mm L 150.5mm

	\$	€	£
186196 Fox Trap	\$193	€170	£125.00



Squirrel Trap

A traditional device for the humane trapping of squirrels or similar sized animals. Doors at each end close when the animal takes the bait, safely trapping it inside. This trap has a carry handle on the top and is supplied ready to use with no assembly required. Please note that, in the UK, it is illegal to release captured live grey squirrels back into the wild. For further information on humane killing of grey squirrels please contact DEFRA or the RSPCA.

	\$	€	£
186145 Squirrel Trap	\$23	€20	£14.99

caudon

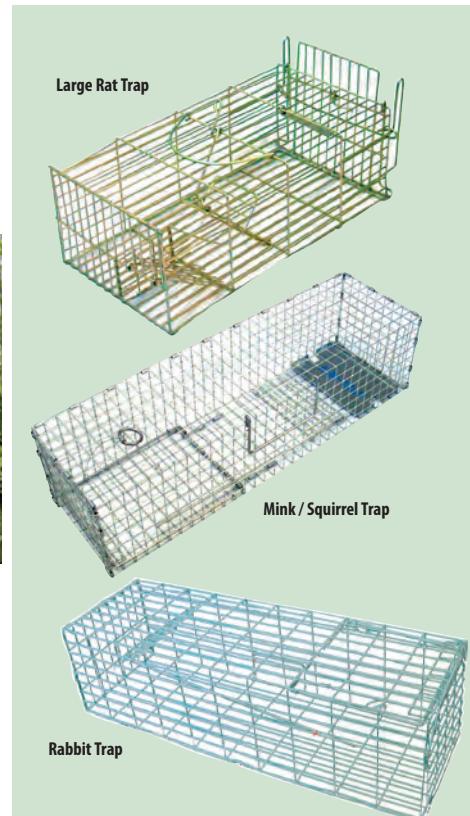


Caudon Badger Gates

Caudon® Badger Gates are designed for long-term badger access or exclusion. The gates can be locked to restrict access both ways, one way or left open in both directions. Manufactured from galvanised steel, these gates are weatherproof and robust enough to withstand rough treatment from badgers. The Lightweight Badger Gate has removable legs, so that the gate can be positioned where required and then the legs tapped through the frame into the ground. The Heavy Duty Badger Gate has fixed legs and a lock down bar for a more robust installation. The frame incorporates either 20 (Lightweight Gate) or 24 (Heavy Duty Gate) fixing holes so that the gate can be securely tied into netting using Stainless Steel Cable Ties. High Tensile Pegs are also available for securing Badger Netting to the ground.

Please note: A 17mm spanner is required to operate the gate locking mechanism.

	\$	€	£
203909 Caudon Lightweight Badger Gate	\$85	€75	£55.00
216890 Caudon Heavy Duty Badger Gate	\$116	€102	£74.99
218164 Stainless Steel Cable Ties (Single)	\$0	€0	£0.25
203917 Stainless Steel Cable Ties (Pack of 20)	\$7	€6	£4.33
203916 Stainless Steel Cable Ties (Pack of 100)	\$33	€29	£21.25
203913 High Tensile Steel Pegs (single)	\$1	€1	£0.45



Albion Traps

Humane mesh cage with single entry. Effective, humane, single entry traps with spring door. Heavy duty galvanised welded mesh.

	\$	€	£
201867 Large Rat Trap	\$24	€21	£15.83
201811 Mink/Squirrel Trap	\$41	€36	£26.46
186277 Mink Trap with Otter Guard	\$77	€68	£49.99
201863 Rabbit Trap	\$45	€40	£29.16

The Eurasian BeaverRóisín Campbell-Palmer *et al.* (2015)

As a keystone species, the beaver plays a vital role in the creation and maintenance of wetland habitats. This book is ideal for those with a specific interest in beavers and their reintroduction and can be used as a field guide to identify beaver signs, by wildlife surveyors and general land users or as a general introductory guide.

220327 PBK

\$15 €14 £9.99

Live Trapping of Small Mammals: A Practical Guide

J Gurnell and JR Flowerdew (2006)

Trapping small mammals relies on individual animals finding, exploring and entering traps set by the field worker, and activating the trap door tripping mechanism. This guide is intended to provide practical advice.

160250 PBK

\$8 €7 £4.99

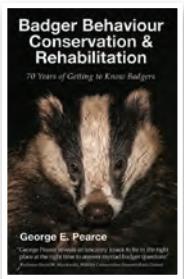
**Badger Behaviour, Conservation and Rehabilitation**

George E Pearce (2010)

For many years, the RSPCA, police, vets and conservation groups have relied on George Pearce's knowledge of badgers and his instinctive feel for animal behaviour. Now you can share in his experience from his 70 years of badger watching.

188500 HBK

\$31 €27 £19.99

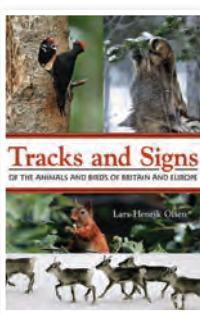
**Tracks and Signs of the Animals and Birds of Britain and Europe**

Lars-Henrik Olsen (2013)

This beautifully illustrated field guide enables you to easily identify the tracks and signs left by a wide variety of mammal and bird species found in Britain and Europe, covering behaviours ranging from hunting, foraging, and feeding to courtship, breeding, and nesting.

206580 PBK

\$28 €24 £17.95

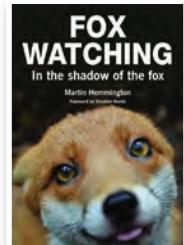
**Fox Watching: In the Shadow of the Fox**

Martin Hemmington (2014)

With the benefit of illustrations, Fox Watching provides information on how to find, attract and watch foxes in the wild, as well as how to photograph them. Also includes fascinating information about their behaviour.

220138 PBK

\$15 €14 £9.99

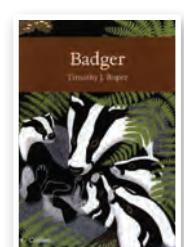
**Badger**

Tim Roper (2010)

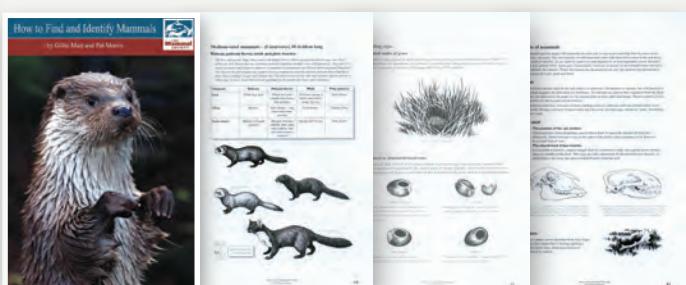
This volume reveals the extraordinary and complex lifestyle that allows this secretive animal to live in even the most built-up areas of Britain. It also reveals the facts behind the current role of badgers in transmitting tuberculosis to cattle.

177548 HBK

\$77 €68 £49.99

**How to Find and Identify Mammals [Revised Edition]**

Gillie Muir and Pat A Morris (2013)



This revised second edition of How to Find and Identify Mammals includes the same excellent illustrations of mammals, their tracks and signs, while incorporating survey methods using the latest techniques and technologies.

210208 Spiralbound

\$19 €16 £11.99

Mammals of the British Isles

Ed. by Stephen Harris and Derek Yalden (2008)



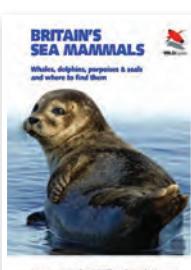
New edition of the Handbook of British Mammals, the definitive handbook for the study of British mammals. The text covers appearance, distribution, ecology and behaviour of all land and sea mammals, a history of the mammal fauna, habitats and their mammalian communities, extinct and introduced species and mammals and the law.

124732 HBK

\$54 €47 £34.99

Britain's Sea MammalsRobert Still *et al.* (2012)

Britain's Sea Mammals is the essential field guide to all the sea mammals found in coastal Britain. Features more than 100 stunning photographs and detailed illustrations of 34 species of sea mammals, paying special attention to the 14 species most readily seen.



198786 PBK \$20 €18 £12.95

Water Vole Conservation HandbookRob Strachan *et al.* (2011)

This handbook aims to improve the understanding and awareness of the requirements of water voles. Topics covered include: Life cycles; Habitat; Distribution; Causes for concern; Key points; Understanding water voles; Water vole surveys; Habitat management and advice; and Species management and advice.

196267 PBK

\$62 €54 £39.99

MAMMAL BOOKS

Hedgehogs

Pat A Morris and Guy Troughton (2014)

In his refreshingly lighthearted style, Pat Morris presents scientific and down-to-earth information about one of Britain's best-loved wild creatures, the bumbling and endearing hedgehog. This has remained the principal 'popular' book on the hedgehog for over thirty years - a measure of its success and usefulness.

213869 HBK



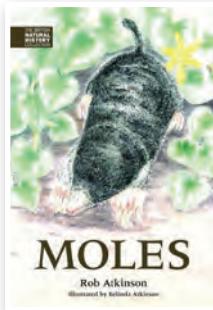
\$23 €20 £14.99

Moles

Rob Atkinson and Belinda Atkinson (2013)

This beautifully illustrated volume is devoted to one of Britain's most common, but rarely seen, mammals. It takes us deep into the world of these small creatures offering us a wonderful glimpse into the lonely darkness of their tunnels and a rare insight into their underground lives.

198407 HBK



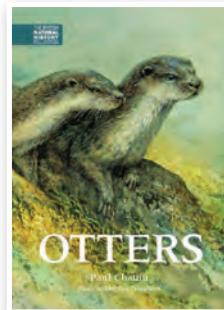
\$23 €20 £14.99

Otters

Paul RF Chanin and Guy Troughton (2013)

This new version of *Otters* reports on the results of research studies and comments on the causes of both the decline and recovery of this charming species in the UK. Illustrated with beautiful and accurate line drawings and cartoons and also features an eight-page gallery of colour photographs.

173963 HBK



\$23 €20 £14.99

Handbook of the Mammals of the World, Volume 5: Monotremes & Marsupials

Don E Wilson *et al.* (2015)

Volume 5 of the HMW series provides complete accounts of all species and families of Marsupial. Lavishly illustrated with colour photographs, including many showing different species specific behaviours. The text contains the most up-to-date information on this group.

174997 HBK

\$TBC €TBC £TBC



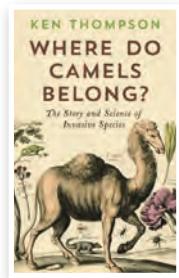
Where Do Camels Belong?: The Story and Science of Invasive Species

Ken Thompson (2015)

Ken Thompson puts forward a fascinating array of narratives to explore what he sees as the crucial question – why only a minority of introduced species succeed, and why so few of them go on to cause trouble.

217775 PBK

\$14 €12 £8.99



The Wild Cat Book: Everything You Ever Wanted to Know About Cats

Fiona Sunquist *et al.* (2014)



Felines have long held a place of honour in their human counterpart's homes and cultures. In *The Wild Cat Book* we are introduced to the full panoply of the purring, roaring feline tribe. Includes comprehensive entries for each of the thirty-seven cat species and provides colour distribution maps alongside up-to-date information related to each species' IUCN conservation and management status. Combining science, behavioural observations and stunning photography, this is an instructive and revealing ode to felines of every size and colour.

214207 HBK

\$38 €33 £24.50

The Art of Tracking Animals

Włodzimierz Jedrzejewski and Vadim Sidorovich (2010)



In this book the authors share their experience and knowledge of the identification and interpretation of tracks left by wild mammals. The most important source of information is the included photographs: pictures of animals and their tracks, selected so as to provide documentation on the life and behaviour of animals in the wild. This book is ideal for students of biology, forestry and nature conservation as well as naturalists, hunters and amateurs with a passion for nature observation.

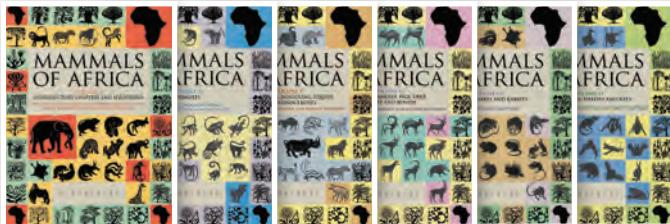
213231 PBK

\$29 €26 £18.99

Otters stand at the top of the food chain on both land and water so they are an ideal indicator of a healthy environment. *Otters of the World* is an introduction to the magical world of otters and is complemented with many wonderful photos along with distribution maps for each of the 13 species. It is hoped that this book will increase public support for and awareness of the plight of otters which in many countries are on the verge of extinction.

213231 PBK

\$29 €26 £18.99

Mammals of AfricaEd. by Jonathan Kingdon *et al.* (2013)

Mammals of Africa contains the very latest information and detailed discussion of the morphology, distribution, biology and evolution (including reference to fossil and molecular data) of every currently recognised species of African land mammal. Each volume follows the same format, with detailed profiles of every species and higher taxa. Includes some 660 colour illustrations by Jonathan Kingdon highlighting details of morphology and behaviour of the species concerned. Every species also includes a detailed distribution map.

192339 HBK

\$926 €814 £600.00

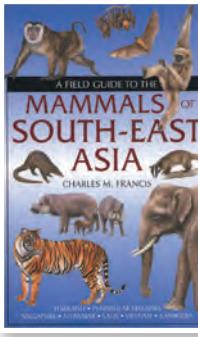
A Field Guide to the Mammals of South East Asia

Charles M Francis (2008)

A detailed account with key identification characteristics, habitat and behaviour is included for each species, from large mammals such as big cats, the elephant, rhinoceroses and cetaceans, through bears, langurs and badgers, to bats, flying-foxes and rodents. Detailed line drawings amplify details of anatomy and other aspects.

163035 HBK

\$54 €47 £34.99

**Mammals of Madagascar:**

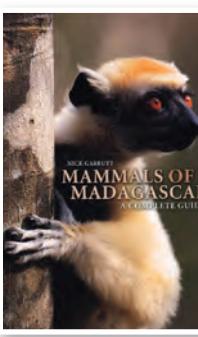
A Complete Guide

Nick Garbutt (2007)

Madagascar has a unique mammal fauna. Of the 123 species, at least 103 are found nowhere else on earth. It is best known for its 33 species of lemur, but there are also a great variety of tenrecs, bats, rodents, viverrids and mongooses. This is a reduced format field guide adaptation of the highly acclaimed 'Mammals of Madagascar'.

155240 PBK

\$39 €34 £24.99

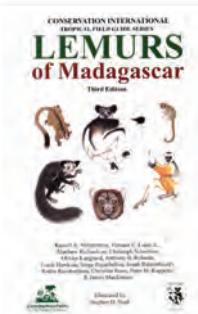
**Lemurs of Madagascar**

Russell Mittermeier and Edward Louis (2010)

This book presents a wealth of new information on every aspect of the biogeography, ecology and conservation of lemurs, with chapters on the geological history of Madagascar, the origin of lemurs, the extinct lemurs, the history of the discovery and study of living lemurs, and the conservation status of the lemurs and the threats to their existence.

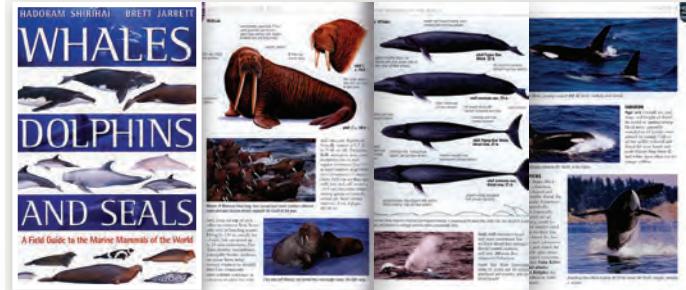
181417 PBK

\$49 €43 £31.49

**Whales, Dolphins and Seals: A Field Guide**

to the Marine Mammals of the World

Hadoram Shirihai and Brett Jarrett (2006)



This new field guide is a complete and convenient reference to every species of cetacean, pinniped and sirenian in the world, along with the Marine and Sea Otters and the Polar Bear. Every species is illustrated with colour paintings and photographs, chosen to illustrate the key field marks which can be used to separate each species in the field.

152441 PBK

\$20 €18 £12.99

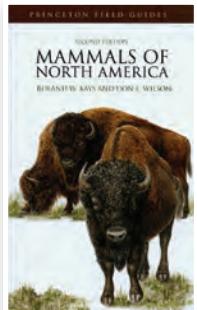
Mammals of North America

Roland Kays and Don Wilson (2009)

With a more up-to-date species list than any other guide, improved facing-page descriptions, easier-to-read distribution maps, updated common and scientific names, and track and scat illustrations, this slim, light, and easy-to-use volume is the must-have source for identifying North American mammals.

180667 PBK

\$22 €19 £13.95

**Mammals of Europe, North Africa and the Middle East**S Aulagnier *et al.* (2009)

Covering over 400 species, this work presents all of the terrestrial mammal species of the Western Palearctic, serving as an excellent guide to the great wealth of fauna in this region. Species accounts are supported by distribution maps and superb illustrations.

178051 HBK

\$39 €34 £24.99

Primates of the World: An Illustrated Guide

Jean-Jacques Petter (2013)



This stunningly illustrated guide to the world's primates covers nearly 300 species. Organized by region and spanning every family of primates this book features 72 splendid color plates, descriptions of key features of each family, and 86 colour distribution maps.

206579 HBK

\$31 €27 £19.95

AMPHIBIAN SURVEY

Amphibian survey can involve a variety of methods: these include daytime visual searches, netting of submerged vegetation, night-time torchlight surveys, trapping (e.g. bottle or Dewsbury), and use of drift fencing in conjunction with pitfall traps.

Surveys conducted by volunteers and conservation workers are vital for an understanding of the distribution and status of native amphibian species. Surveys by ecological consultants are also required whenever development is planned in an area where amphibians and their habitat may be affected.



Newt Bottle Traps

Bottle traps are a common way of trapping both adult and larval newts and are an effective way of determining population presence within a pond. Traps should be set around the pond margins, facing towards the centre and all traps should be secured into position using a cane or stake. It is very important that traps are marked and numbered and that all traps are collected early in the morning. This will ensure that newts do not suffer unnecessarily through overheating or lack of air.

These clear PET bottles have a volume of two litres and a neck diameter of 28mm. They are available either whole or with the top part of the bottle cut off, holes for fixing poles are not pre-cut.



Whole Bottle Traps

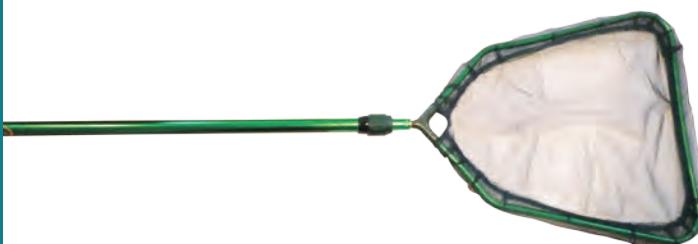
(Prices exclude VAT)	\$	€	£
205870 Pack of 40	\$36	€32	£23.33
205871 Pack of 120	\$103	€90	£66.67

Pre-Cut Bottle Trap

(Prices exclude VAT)	\$	€	£
205872 Pack of 40	\$64	€57	£41.67
205873 Pack of 120	\$186	€164	£120.83

Bamboo Canes

(Prices exclude VAT)	\$	€	£
203005 Pack of 10	\$2	€2	£1.13
203006 Pack of 100	\$17	€15	£10.83



Herpetology Net

The Herpetology Net is great for mid-late summer surveys of amphibian larvae. It has a detachable head, wide shallow net bag and telescopic pole which is 2.3m in length when extended.

(Prices exclude VAT)	\$	€	£
202369 Herpetology Net	\$32	€28	£20.82

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Surveys are most often conducted during the spring from March to mid-June and the number of surveys required per site will depend largely on the sampling method and target species. For more information contact Natural England or the National Amphibian and Reptile Recording Scheme (NARRS).

Please note that both the great crested newt and natterjack toad receive full protection under the Wildlife & Countryside Act 1981. This means that it is illegal to capture, collect or disturb animals in the wild and protection is also given to breeding and resting sites. A licence is required to survey these species.



Dewsbury Newt Trap

The Dewsbury Newt Trap is an innovative new design of refuge trap for use in newt survey projects as well as translocation work. The design of the trap provides access to fresh air at the top of the trap and a thermally stable refuge at the bottom of the pond. Consequently the trap has proven to be completely safe for newts - early trials delivered 801 live newts and no dead or injured newts.

Deployed from the side of the pond the Dewsbury Trap is also safe and convenient for surveyors, minimises disturbance to ponds and marginal vegetation, does not require night visits (traps can be left unattended for a maximum of 24 hours) and takes just a few minutes to deploy. In a preliminary trial, the Dewsbury Trap was more effective at catching newts than traditional bottle trapping methods - where newts were present in a pond the average catch was 12 newts per trap deployed.

Please note: We recommend that you contact your national licensing authority before you purchase this trap. At the time of writing, the Dewsbury Newt Trap is not included within either the Level 1 or 2 Natural England Class Survey Licence and a separate licence is required.

(Prices exclude VAT)	\$	€	£
196605 Dewsbury Newt Trap	\$39	€34	£24.96



Professional Hand Net (2mm mesh)

The Professional Hand Net conforms to Environment Agency specifications and is light yet sturdy. Available with either a wooden or aluminium handle. For ease of carrying and storing, it can also be purchased with a two- or three-piece sectional handle. Bags are made from durable knitted polyester and have a mesh size of 2mm. They are easily removable for washing or replacement and spare bags can be purchased separately. For other net bags that are compatible with these frames please see page 154.

(Prices exclude VAT)	\$	€	£
175603 Wooden Handle	\$88	€77	£57.08
188331 Aluminium Handle	\$80	€70	£51.67
193733 Two-piece Wooden Handle	\$109	€96	£70.83
193509 Three-piece Wooden Handle	\$121	€106	£78.33
175599 Replacement Net Bag (2mm mesh)	\$28	€24	£17.97



Newt Barrier Exclusion Fencing

EcoFender Newt Barrier is a 100m roll of tough (1000 gauge), 2% UV stabilised polythene sheeting. EcoFender Newt Barrier can be used as temporary fencing (using a simple post and rail system) to either exclude or contain newts, frogs, snakes and other small animals, thereby protecting them from entering hazardous areas. These fences conform to the CIRIA 'Wildlife Fencing Design Guide' and Natural England's 'Great Crested Newt Mitigation Guidelines' criteria. EcoFender has a life expectancy of 2–3 years, is green tinted and is designed to resist weather damage.

	\$	€	£
195288 EcoFender Newt Fencing	\$102	€89	£65.82

Newt Barrier Fixings

These stakes, nails and washers are suitable for installation of EcoFender newt barrier. The polypropylene washers help to distribute the weight and tension of the fabric over a wider area and reduce the risk of the fence tearing. Stakes should be placed approximately 1.5m apart and a minimum of three fixings (nails and washers) should be used at each one. The overall height of the newt fence should be 500mm above ground level.

Soft Wood Stakes

	\$	€	£
221307 Single Stake	\$1	€1	£0.79
221306 Pack of 70 Stakes	\$87	€77	£56.66



Galvanised Clout Nails

	\$	€	£
221717 1kg (approx. 650 nails)	\$5	€4	£2.92
221275 2.5kg (approx. 1640 nails)	\$11	€10	£7.08



Polypropylene Washers

	\$	€	£
221718 Pack of 500	\$32	€28	£20.79
221302 Pack of 1000	\$60	€53	£39.16



Johnson Universal pH Indicator Paper

pH test paper provides a quick and accurate method of measuring the pH of a liquid and is useful for testing the pH of water bodies such as ponds. Simply dip the test paper into the liquid and compare the colour with the chart. Alternatively, the colour of the paper can be compared to that of a solution of known value. This paper will test the full range from pH 1 to pH 14. A colour chart in steps of 1 pH is included. This pH paper is supplied as a continuous reel in a plastic dispenser. Contains 5m length of 6mm wide paper.

	\$	€	£
193236 pH Indicator Paper	\$12	€10	£7.49

Lifesystems Light and Dry First Aid Kit

Lifesystems Light and Dry First Aid Kits combine super-lightweight fabrics with space-saving design. They are ideal for activities that require minimal gear. The contents are stored within waterproof component bags and everything is easy to access, so these kits will perform even in the toughest of conditions. Available in a Micro version which contains 34 items or a Pro version which contains 38 items.

	\$	€	£
188611 Micro First Aid Kit	\$13	€11	£8.33
188612 Light and Dry Pro	\$19	€16	£12.08



Pitfall Traps

Pitfall traps are commonly used in studies of amphibian ecology and to collect amphibians for transportation. In combination with drift fences they can also be used to detect movements within terrestrial habitats. Pitfall traps should be checked at least once every 24 hours and preferably more frequently. They should also be provided with a suitable substrate at the base of the trap under which animals may shelter.

This rectangular bucket has a capacity of 10 litres and is made from Polypropylene Copolymer.



Please note: If using pitfall traps in areas with shrews then you will require a separate licence or traps should be added to the trap to allow shrews to escape.

	\$	€	£
201567 Pitfall Trap Bucket	\$8	€7	£4.99

Cluson Smartlite Lithium-Ion Torch

The Smartlite Lithium-Ion torch is a heavy duty torch with one million candle power and 1km beam. It is a great torch for ecologists and naturalists conducting nocturnal surveys. Features a streamlined, reinforced plastic case and has a comfortable handle with easy-reach switch. The Lithium-ion battery makes the torch light and easy to handle. Available in two models: 9.2Ah and 18.4Ah. Battery life of these models (continuous use on main beam) is 2.5 and 4.5 hours respectively. Mains charger included.

	\$	€	£
197953 Smartlite Lithium-ion: 9.2Ah	\$194	€171	£126.00
197960 Smartlite Lithium-ion: 18.4Ah	\$293	€258	£190.00



Cluson CB2 Clubman Deluxe Lamp

The 1 million candlepower Clubman Deluxe torch is ideal for conducting nocturnal surveys. The lamp has a piercing white beam, shining up to 1000m and can be mounted on the battery, carried by hand or attached to a telescopic accessory pole (available separately). Available as a standard version which contains a 7Ah sealed lead acid battery or with a 9.2Ah or 18.4Ah Lithium-ion battery. The lithium-ion versions have the advantage of a lower weight and longer battery life.

	\$	€	£
180536 CB2 Lead Acid: 7Ah	\$148	€130	£95.83
196252 CB2 Li-ion: 9.2Ah	\$230	€202	£149.17
196253 CB2 Li-ion: 18.4Ah	\$322	€283	£208.83



Breaksafe Thermometer

A thermometer is useful for measuring both air and pond temperature during surveys. This 'Breaksafe' Thermometer is encapsulated in PVC which will contain any glass or filling material in the event of a breakage. This makes it ideal for use in the field. Measures 200mm in length and has a range of -10 to +110°C.

	\$	€	£
193178 Breaksafe Thermometer	\$6	€5	£3.96



Virkon S Broad Spectrum Disinfectant Tablets

Virkon S are broad spectrum virucidal disinfectant tablets for use in sterilising equipment and footwear between surveys. Each bottle contains 500 x 5g tablets that dissolve in 500ml of water to provide a 1% solution that is effective on porous surfaces, in hard water and at low temperatures.

	\$	€	£
212544 Virkon S	\$24	€21	£15.79





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REPTILE SURVEY

In the U.K., adders, grass snakes, common lizards, slow worms, smooth snakes and sand lizards are protected by law. Sand lizards and smooth snakes are also covered by European law which means that their breeding places and resting sites are protected.

Survey methods for all of these species usually consist of a combination of visual transects and refugia searching (artificial or natural), both of which can help to determine the presence or likely absence of reptiles, the distribution of species within a site as well as changes in abundance. The answers to such key questions are vitally important for habitat management plans, protection of key sites and the compilation of local and regional atlases.



HexArmor Bite-Proof Gloves

The Super-Fabric brand material in these Bite-Proof Gloves provides the highest resistance to cuts and punctures, making them the perfect choice to protect your hands when dealing with snakes. Available in four sizes, they are pre-curved for maximum comfort and the 20cm extended cuff increases your protection.



(Prices exclude VAT)

	\$	€	£
199544 HexArmor Gloves: Medium	\$321	€282	£208.33
199545 HexArmor Gloves: Large	\$321	€282	£208.33
199546 HexArmor Gloves: X Large	\$321	€282	£208.33

Snake Handling Gloves

These Reptile Handling Gloves are designed to give you protection when handling reptiles. They also protect your hands from injury and provide a level of comfort when carrying iron sheets or felt tiles which can often have rough edges. The gloves are made from leather that is strong enough to minimise the risk of bites and which will also help to mask your scent. Available separately for the left or right hand.



(Prices exclude VAT)

	\$	€	£
199438 Handling Glove: Rgt Hand	\$12	€10	£7.49
199439 Handling Glove: Lft Hand	\$12	€10	£7.49

Mesh Holding Bag

This holding bag is made from very soft mesh fabric and has a string tie and cord lock to keep the contents secure. Fully washable and measures 30 x 40cm.



(Prices exclude VAT)

	\$	€	£
193384 Mesh Holding Bag	\$10	€8	£6.25

Artificial Refuges for Reptile Survey

Artificial refuges attract reptiles as they absorb heat and provide shelter from predators. As a result they can be successfully used as an aid to reptile surveys. Roofing felt or carpet is normally used because they are light enough to transport but produce favourable conditions beneath, which is attractive to reptiles. Tiles should be located in sunny areas near to cover and away from human disturbance. Felt tiles are made from bitumen felt and are available in two sizes: 50 x 50cm or 100 x 50cm. They will roll up for convenient transportation and can be secured with fixing pegs. Carpet tiles have bitumen backs and measure 50cm x 50cm.

(Prices exclude VAT)

	\$	€	£
203713 Felt Tiles: 50 x 50cm - Pack of 10	\$24	€21	£15.82
203714 Felt Tiles: 50 x 50cm - Pack of 100	\$238	€209	£145.16
203715 Felt Tiles: 50 x 100cm - Pack of 10	\$46	€41	£29.99
203716 Felt Tiles: 50 x 100cm - Pack of 100	\$462	€406	£299.16

Carpet Tiles

184019 Carpet Tiles - Single Tile	\$3	€2	£1.66
184036 Carpet Tiles - Pack of 15	\$32	€28	£20.83

Fixing Pegs

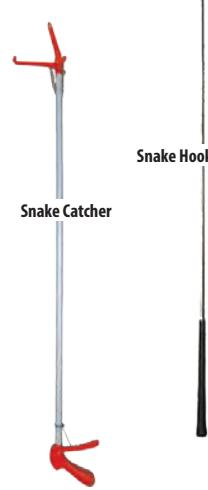
203008 Fixing Pegs - Pack of 10	\$2	€2	£1.54
203009 Fixing Pegs - Pack of 100	\$22	€20	£14.58



Reptile Handling Tools

The traditional Snake Hook features a 1m long chrome shaft with rubber grip. The stainless steel hook is designed in a way that decreases the chance of harming the animal.

The Snake Catcher is a long-reach aluminium tool designed to pick up snakes. The hand activated pincers and unique head design apply just enough pressure to be effective but without hurting the animal.



	\$	€	£
193371 Snake Hook	\$46	€41	£29.99
207401 Snake Catcher	\$97	€85	£62.97

Amphibians and Reptiles

Trevor Beebee (2013)



The goal of *Amphibians and Reptiles* is to encourage readers to develop their own ecological studies, to this end, the author summarises the current state of knowledge of reptile and amphibian biology, including behaviour, breeding, habitat selection, migration and development, and offers ideas for research projects.

206083 PBK

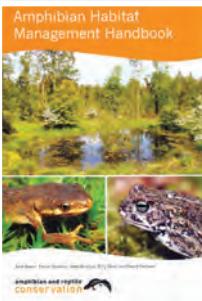
\$31 €27 £19.99

Amphibian Habitat Management HandbookJohn Baker *et al.* (2011)

This handbook forms a resource for a range of users including conservation professionals and interested volunteers. It covers those amphibians native to Great Britain such as the two that are subject to Biodiversity Action Plans (great crested newt and common toad) and features a section on the unique ecological requirements of the natterjack toad - a species considered rare in the UK.

192118 PBK

\$20 €18 £12.99

**Great Crested Newt: Conservation Handbook**T Langton *et al.* (2001)

Guide to habitat management, pond creation and restoration. It aims to assist those undertaking practical conservation work for the great crested newt and provides guidance so that the conservation objectives can be achieved effectively. Focuses on habitat management and survey to locate great crested newts, with supporting information on ecology, legislation and site protection.

129585 PBK

\$8 €7 £4.90

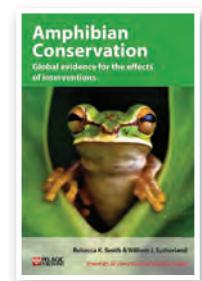
**Amphibian Conservation: Evidence for the Effects of Interventions**

Rebecca Smith and William Sutherland (2014)

Amphibian Conservation summarises the available scientific evidence and experience relevant to the practical conservation of amphibians with a particular focus on the effectiveness of amphibian conservation interventions across the world.

211092 PBK

\$46 €41 £29.99

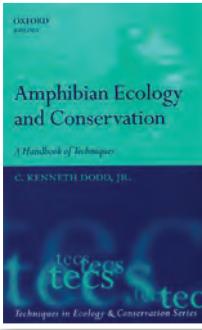
**Amphibian Ecology and Conservation: A Handbook of Techniques**

Ed. by C Kenneth Dodd, Jr. (2009)

This practical manual of amphibian ecology and conservation brings together a distinguished, international group of amphibian researchers to provide a state-of-the-art review of the many new and exciting techniques used to study amphibians and to track their conservation status and population trends.

178778 PBK

\$59 €52 £37.99

**Reptile Habitat Management Handbook**Paul Edgar *et al.* (2010)

The book is aimed at site managers, and those who advise on management. It gives advice for a range of settings, from dedicated nature reserves to farmland and includes a useful appendix of Environmental Stewardship options. The text is backed up by full colour photos showing typical habitat examples and species behaviour.

190482 PBK

\$20 €18 £12.99

Britain's Reptiles and Amphibians:

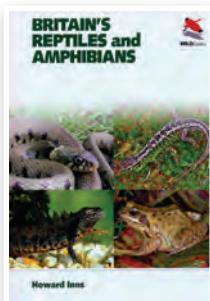
A Guide to the Reptiles and Amphibians of Great Britain, Ireland and the Channel Islands

Howard Inns (2009)

This detailed guide to the reptiles and amphibians of Britain, Ireland and the Channel Islands has been produced with the aim of inspiring an increased level of interest in these exciting and fascinating animals. It is designed to help anyone who finds a lizard, snake, turtle, tortoise, terrapin, frog, toad or newt to identify it with confidence.

174837 PBK

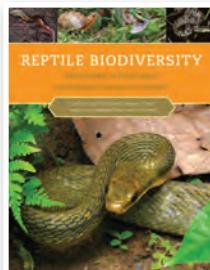
\$28 €24 £17.95

**Reptile Biodiversity: Standard Methods for Inventory and Monitoring**Ed. by Roy McDiarmid *et al.* (2012)

With contributions from nearly seventy specialists, *Reptile Biodiversity: Standard Methods for Inventory and Monitoring* offers a comprehensive guide to the best methods for carrying out standardized quantitative and qualitative surveys of reptiles, while maximizing comparability of data between sites, across habitats and taxa, and over time.

195980 HBK

\$108 €95 £69.95

**Herpetofauna Workers Manual**

Ed. by Tony Gent and Steve Gibson (2012)

An indispensable manual for conservationists throughout the UK and much of mainland Europe. It provides conservation guidance on the twelve non-marine amphibian and reptile species native to the British Isles. It covers a wide range of issues, from advice on surveying to reintroductions.

196443 PBK

\$39 €34 £24.99

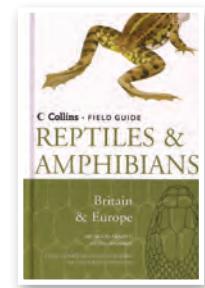
**Collins Field Guide to the Reptiles and Amphibians of Britain and Europe**

Nick Arnold and Denys Ovenden (2002)

Describes and illustrates all the British and European species of salamanders, frogs and tree frogs, toads, tortoises, turtles, and terrapins, geckoes, agamas, lizards, and chameleons, slow worms, skinks, amphibians and the 25 species of snake.

70618 HBK

\$46 €41 £29.99





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Wildlife radio telemetry or radio tracking involves the transfer of location information from a transmitter on an animal to a handheld receiver via an antenna.

Radio tracking is used to collect data on the ecology and life histories of wildlife, including home range size, habitat use, survival and migration routes. NHBS provides a range of radio telemetry equipment for use in radio tracking. Key features to consider when designing a radio tracking project:

Frequency Ranges and Channels

Telemetry receivers are configured to receive transmissions from a specified VHF range. Each transmitter must then also be configured to transmit on a specified channel within that range. For example in the 173MHz frequency range, there would be space for 100 channels (i.e. animal transmitters) spaced 10KHz apart or 200 channels spaced 5KHz apart. The wider the spacing between channels, the less overlap there is between signals from transmitters. UK radio tracking must be done on frequency 173MHz, whereas most other European countries use 150–151MHz.

TRX-3S Telemetry Receiver 173 MHz

Affordable telemetry receiver

The TRX-3S radio telemetry receiver is an affordable tracking solution for monitoring three animals on 10KHz spaced channels, tuned by quartz-locked digital synthesizer. It is lightweight, at under 400 grams, but has full functionality, with an attenuator switch and an LED scale to display signal strength. This receiver is programmed to monitor transmitter signals on the 173 MHz frequency. The TRX-3S is powered by 8 x AAA batteries (included), providing 8–10 hours of tracking time, and is supplied with a padded carry case with shoulder strap and belt loop.

(Prices exclude VAT)

198500 TRX-3S 173MHz

\$386 €339 £249.99



TRX-1000S Telemetry Receiver

High capacity receiver

Monitor or track up to 200 animals with this sophisticated but easy-to-operate radio telemetry receiver. The TRX-1000S receiver has improved digital circuitry to enable fast, accurate tuning of transmitter signals and is programmed either at 173 or 151MHz. Noise-reducing digital audio filters reduce background noise drop away to ensure greater sensitivity. The TRX-1000S has a noise blanking circuit and an attenuator. The nickel hydride battery can be charged from mains power to provide 6–8 tracking hours and has virtually no memory build-up. The receiver can be powered directly from a 12V car battery with a cable (supplied) and a lid-mounted unit with disposable batteries can be purchased to provide emergency backup. The case is compact and robust and the unit weighs 1.3kg. The backlit signal meter makes signal determination easy, even in low light conditions. A padded nylon carrying case is also included. The TRX-1000S WR model has a water-resistant case and faceplate to enable use of the receiver in rain.

(Prices exclude VAT)

202994 TRX-1000S 173MHz

\$952 €836 £616.67

197806 TRX-1000S 151MHz

\$952 €836 £616.67

197808 TRX-1000S WR 173MHz (Water-resistant model)

\$1,524 €1,339 £987.50



Attenuation

Attenuation is the reduction of signal power, and an attenuation function is particularly useful when the transmitter is close to the antenna. In this situation the receiver can become swamped and it can be difficult to pinpoint the transmitter's location. An attenuation switch reduces the signal gain.

Noise Blanking

Interference can be received by reflection of the radio waves from hillsides, woods and buildings. A noise blanking circuit reduces interference and helps in locating an accurate signal.

Antennae

Antennae need to be configured to match the transmitter and receiver ranges. The most common antenna is the Yagi antenna, which has a varying number of elements (i.e. horizontal bars). The length of the antenna and the number of elements will affect how sensitive the antenna is. The antenna must be oriented in the same plane (i.e. vertically or horizontally) as the transmitter aerial to achieve maximum reception.

TRX-48S Telemetry Receiver

173 MHz on Yagi Antenna

All-in-one receiver and antenna

The TRX-48S radio telemetry receiver allows radio tracking of up to 48 animals at a time on three bands of 16 channels. It is lightweight, at 454 grams (1.13kg including antenna), but is packed with features such as an attenuator switch, noise blanking circuit and an LED scale to display signal strength. This receiver is supplied permanently mounted on a 3-element folding Yagi antenna with pistol grip, to provide a handy all-in-one receiving unit. This receiver is programmed at 173MHz. The TRX-48S is powered by 8 x AAA batteries (included), providing 13–15 hours of tracking time, and is supplied with a long padded carry case with shoulder strap and handle.

(Prices exclude VAT)

202987 TRX-48S on Antenna 173MHz

\$845 €742 £547.50



TRX-2000S Telemetry Receiver

Top of the range receiver

The TRX-2000S radio telemetry receiver is able to monitor up to 400 animals across two frequency bands, providing superb quality, comprehensive tracking coverage and the crystal controlled synthesizer tunes in up to 200 frequencies per band. The TRX-2000S receiver has improved digital circuitry to enable fast, accurate tuning of transmitter signals. Noise-reducing digital audio filters reduce background noise drop away to ensure greater sensitivity. The TRX-2000S has a noise blanking circuit and an attenuator. The nickel hydride battery can be charged from mains power to provide 6–8 tracking hours and has virtually no memory build-up. The receiver can be powered directly from a 12V car battery with a cable (supplied) and a lid-mounted unit with disposable batteries can be purchased to provide emergency backup. The case is compact and robust and the unit weighs 1.3kg. The backlit signal meter makes signal determination easy, even in low light conditions. A padded nylon carrying case is also included. The TRX-2000S WR model has a water-resistant case and faceplate to enable use of the receiver in rain.

(Prices exclude VAT)

198499 TRX-2000S 150–151MHz

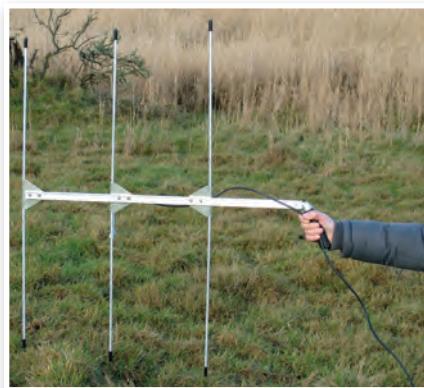
\$1,143 €1,005 £740.83

198192 TRX-2000S WR 150–151MHz

\$1,729 €1,520 £1,120.83

(Water-resistant model)





Short 3-Element Yagi Handheld Antenna

•Lightweight folding Yagi antenna

This robust but lightweight 3-element folding Yagi radio telemetry antenna has been the industry standard for decades. Constructed with a fixed beam design, rubber pistol grip and simple folding elements, secured by stainless steel wing nuts, this antenna is the perfect compromise between performance and portability in radio tracking. Antennae are available configured to detect signals in the 173 or 151MHz band and are provided with a 120cm coaxial cable with BNC connectors. Extended dimensions: 90 x 102 x 4cm.

(Prices exclude VAT)

	\$	€	£
198502 3 Element Yagi - 173 MHz	\$167	€147	£108.33
198501 3 Element Yagi - 151 MHz	\$167	€147	£108.33

Car Mounted Omnidirectional Antenna

•Magnetic car antenna for radio tracking on the move

The omnidirectional car mounted antenna is suitable for use with 173 or 151MHz receivers. This versatile antenna has a strong magnet for attachment to the roof of a vehicle, so is ideal for radio telemetry tracking on the move. The antenna is supplied with a 470cm coaxial cable with BNC connector. The antenna can be unscrewed from the base once attached for convenience, or adjusted to a suitable height using the locking nuts. Total aerial height: 49cm.

(Prices exclude VAT)

	\$	€	£
202996 Car Antenna 173MHz	\$109	€96	£70.83
198505 Car Antenna 151MHz	\$109	€96	£70.83



BATTERIES & CABLES



Battery Pack for TRX Receiver

•Emergency backup battery pack

Versatile emergency power kit for TRX-1000S and TRXS-2000S receivers. Packs comprise of 8 x AA batteries in two protective cases which can be attached to the inside of the receiver lid using Velcro (included). The receiver unit can then be powered by the disposable AA batteries (included). Weight: 260g.

(Prices exclude VAT)

	\$	€	£
198567 TRX Receiver Battery Pack	\$36	€32	£23.33



Long 5-Element Handheld Yagi Antenna

•Longer antenna for improved signal gain



Improve your radio telemetry signal gain with the 5-element folding Yagi antenna.

Constructed to be robust and lightweight, there is an additional 495mm in boom length compared to the 3-element Yagi antenna. The 5-element folding Yagi antenna has a fixed beam design, rubber pistol grip and simple folding elements, secured by stainless steel wing nuts. The antenna is supplied with a 300cm coaxial cable with BNC connectors and is configured for either 173 or 151MHz receivers. Extended dimensions: 140 x 89 x 4cm.

(Prices exclude VAT)

	\$	€	£
198504 5 Element Yagi - 173MHz	\$243	€214	£157.50
198503 5 Element Yagi - 151MHz	\$243	€214	£157.50



Rubber Duckie Omnidirectional Antenna

•Compact antenna for close radio tracking

Short rubberised omnidirectional antenna for use in radio telemetry tracking at close quarters (e.g. in brush) with BNC connector. Compatible with 173 or 151MHz receivers.

(Prices exclude VAT)

	\$	€	£
198524 Rubber Duckie 173MHz	\$32	€28	£20.82
202267 Rubber Duckie 151MHz	\$32	€28	£20.82



Coaxial Cable

Coaxial cable with BNC connectors for use in radio telemetry tracking to connect antenna to receiver. Available in three lengths 120cm (4 foot), 180cm (6 foot) and 300cm (10 foot).

(Prices exclude VAT)

	\$	€	£
198525 Coax Cable 120cm	\$18	€16	£11.66
198526 Coax Cable 180cm	\$18	€16	£11.66
198527 Coax Cable 300cm	\$18	€16	£11.66



Spare Mains Charger for TRX Receivers

Replacement or spare mains battery charger for TRX-1000S and TRX-2000S receivers. Charger is supplied with a US 2-pin plug, but can be supplied with a UK or European adaptor. Weight: 160g.

(Prices exclude VAT)

	\$	€	£
198566 Mains battery charger	\$21	€18	£13.33



STEREO MICROSCOPES

GUIDE TO BUYING A MICROSCOPE

The type of microscope that you require will depend on the kind of object or specimen that you want to view.

Stereo Microscopes have two eyepieces, each with their own objective lens. These lenses are positioned at a slight angle to each other which allows a three-dimensional image to be produced. This gives a greater depth of focus which means that more of the object will be in focus at the same time. Stereo microscopes are suitable for looking at whole objects such as insects and botanical specimens. They are also great for the younger naturalist as they do not require any fiddly slide preparation.

STEREO MICROSCOPES

MX3 Stereo Microscope

- Suitable for digital photomicrography

- Incident and transmitted illumination

The MX3 is a versatile stereo microscope which is suitable for a variety of natural history applications. It features both transmitted and incident illumination with the transmitted light housed in the raised base and the incident lamp fitted behind the objectives and shining directly onto the specimen area.

The MX3 features binocular eyetubes inclined at 45° for comfortable use. The binocular heads have full dioptic adjustment with independent focusing and the interocular distance can be varied to suit the individual. With x10 eyepieces and x2 objective lens, the MX3 has an overall magnification of x20. Additional x20 eyepieces can also be purchased to increase magnification to x40. The stage plate is reversible black/white and has stage clips. Supplied with rubber eyecups and a dust cover. A hard carrying case and spare bulbs can be purchased separately.

(Prices exclude VAT)	\$	€	£
186337 MX3 Stereo Microscope	\$231	€203	£149.99
186890 x20 Eyepieces	\$58	€51	£37.49
186341 Hard Carrying Case	\$45	€40	£29.16
186773 Spare Incident Bulb	\$6	€6	£4.16
186774 Spare Transmitted Bulb	\$6	€6	£4.16



IMXZ Zoom Stereo Microscope

- LED illumination

- Trinocular tube for photomicrography

The IMXZ is probably the best value for money trinocular zoom stereo microscope currently available. It comes with super widefield x10 eyepieces and, with a continuous zoom range of x1 to x4, provides a magnification range of x10 to x40. Additional x20 eyepieces can also be purchased if required.

The trinocular tube can be fitted with both 35mm and compact digital cameras and a simple pull lever diverts light to the trinocular tube when required.

The illuminated stand has both incident and transmitted in built LED lighting. The advantage of LED lighting over traditional bulb illumination is that LED's generate no measurable heat, making them ideal for working with live specimens. Supplied complete with eyecups, frosted glass and reversible black and white dissection plates with stage clips and a dust cover.

(Prices exclude VAT)	\$	€	£
186338 IMXZ Zoom Stereo Microscope	\$681	€599	£441.66
186890 x20 Eyepieces	\$58	€51	£37.49



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Higher power Compound Microscopes are suitable for looking at slide preparations of very thin or microscopic objects or slices through larger objects. These types of microscopes generally have a turret arrangement allowing different objective lenses to be rotated into the line of view. Slides also need to be illuminated from underneath and most compound microscopes have a built-in lighting feature. Compound microscopes offer a very low depth of focus and so cannot be used to view whole objects, even at very low magnifications. Microscopes are made in monocular, binocular or trinocular versions. Binocular microscopes help to reduce eyestrain, particularly if they are being used for long periods of time. The third eyepiece on a trinocular microscope is for attaching a camera for digital photomicrography.

BMX3 Stereo Microscope

- Long-arm allows flexible deployment of stereohead

- Click-stop magnification control

The BMX3 Stereo Microscope allows you to deploy your microscope in a wide range of situations. It is available either with a heavy duty base or bench clamp. The head features a dual pair of objective lenses and the magnification can be changed from x10 to x30 using the click-stop control on the side of the microscope body.

Overall magnification can also be increased using the optional x20 eyepieces. The BMX3 is equipped with super widefield eyepieces and the interpupillary adjustment range is between 54 and 75mm. One eyetube has full dioptic adjustment. The working distance is an impressive 105mm. The dual illumination base has a 6V 15W incident rheostat controlled lighting system.

The rack and pinion focusing block allows for fine adjustment and has a variable tension adjustment. There is also horizontal movement control. The BMX3 is suitable for digital photomicrography.

(Prices exclude VAT)	\$	€	£
186339 BMX3 - Bench Clamp	\$643	€565	£416.66
186340 BMX3 - Heavy Duty Base	\$643	€565	£416.66
186891 x20 Eyepieces	\$73	€64	£47.49

COMPOUND MICROSCOPES

Winchester SP60 Compound Microscope

•x4 to x400 magnification**•Binocular or Trinocular version available**

The Winchester SP60 has a 6V 20W quartz halogen light with on/off switch and rheostat control for optimum illumination. There is a quick release door at the base of the microscope for easy bulb change and it has a 240V to 110V switching option allowing the microscope to be used worldwide. The field lens has integral daylight blue filtration. Technical features include a fully focusing substage condenser with internal iris diaphragm and filter carrier, and a mechanical stage with drop down controls and Vernier reference scales. Slides are protected by a stage focus stop, and the high power objective has spring loaded front lenses. The binocular/trinocular head is fully rotating with interpupillary and dioptric adjustment.

The SP60 comes with x10 widefield eyepieces and four achromatic objectives: x4, x10, x40 and x100 (oil immersion) with numerical apertures of 0.1, 0.25, 0.65 and 1.25 respectively. The trinocular option has a fixed light distribution between the binocular and trinocular tubes. A camera can be attached to the trinocular tube or, if you have the binocular version, to one of the binocular eyetubes.

(Prices exclude VAT)

	\$	€	£
186351 Winchester SP60 : Binocular Version	\$604	€531	£391.66
186352 Winchester SP60: Trinocular Version	\$643	€565	£416.66
186901 Spare Transmitted Bulb	\$10	€9	£6.66
186892 x20 Eyepieces	\$81	€71	£52.49



FIELD MICROSCOPES

DM6 Field Stereo Microscope

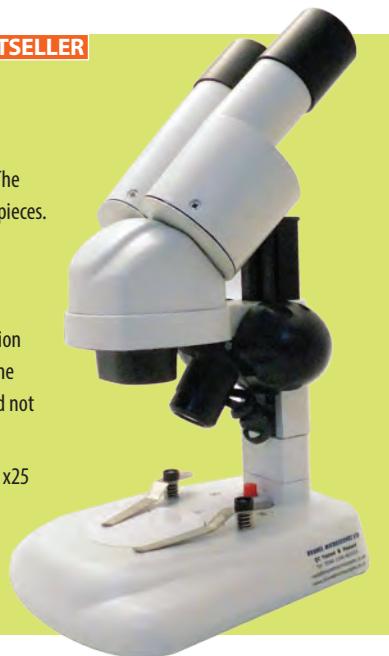
BESTSELLER**•Lightweight and robust****•LED incident light source**

The DM6 is a superb lightweight stereo microscope, ideal for field use. The optical components are achromatic glass lenses with widefield x10 eyepieces. The objective pair is x2 giving an overall magnification of x20. This can be extended to x50 with additional eyepieces. The DM6 has an integral battery-powered LED incident light source with on/off switch. The LED light is shock resistant for field use and will never blow. Focus is by friction rack, and the removable white dissection plate has specimen clamps. The interpupillary distance is fully adjustable. Due to its small size we would not recommend the DM6 for use with cameras.

Please note the DM6 microscope comes with x10 eyepieces as standard x25 eyepieces can be purchased separately.

(Prices exclude VAT)

	\$	€	£
211570 DM6 Microscope	\$72	€63	£46.66
211572 x25 Eyepieces	\$28	€25	£18.29



Motic LM100 Field Microscope

•x20 - x100 magnification**•Battery powered**

The Motic LM100 is perfect for the naturalist or young scientist who wants a truly portable and economical microscope. The LM100 gives an impressive x20-x100 magnification, is simple to operate and will provide adults or children with a fascinating window into the microscopic world. It can be used to view prepared specimen slides, larger objects such as rocks, insects and plants or aquatic samples. The three mode LED illumination provides top or bottom lighting, or a combination of both with adjustable intensity.

The microscope comes in a carry bag which makes it ideal for taking on field trips. Also provided are a range of accessories, including a pipette, forceps, sample jar and slides, as well as some prepared slides for you to practice on. The LM100 is powered by 3 x AA batteries (not included).

(Prices exclude VAT)

	\$	€	£
193283 Motic LM100 Field Microscope	\$77	€68	£49.99



Trekker Field Microscope

•Portable pocket microscope for field work

This low cost microscope is lightweight but robust, making it ideal for viewing solid or transparent objects or slides in the field or classroom.

It gives a magnification of x35 - suitable for most uses - or you can detach the eyepiece to use as a x10 hand lens. Focusing is achieved via the thumbwheel on the underside which is very easy to use. The focus range extends from the stage to 17mm above making it extremely useful for irregular shaped objects such as insects or geological samples. The white LED annular lighting system gives bright, daylight corrected illumination and the fully coated optics give clear, sharp high resolution images.

The Trekker pack includes microscope, soft pouch, magnetic stage to hold slides or small objects in place, sample slide and clear slide. The optional TrekLink links your trekker to your SLR camera, while the hard case will protect it during transport or storage.

	\$	€	£
180582 Trekker Field Microscope	\$69	€61	£44.99
180583 Trekker Hard Case	\$12	€10	£7.49
180584 TrekLink Camera Adapter	\$26	€23	£16.66

DIGITAL MICROSCOPES

► MOTICAM DIGITAL MICROSCOPE CAMERAS

Motic is a market leader in affordable, high quality, digital microscopy solutions. Their Moticam range allows users to take crystal clear digital photographs from almost any microscope. Simply connect a Moticam to your microscope and plug it in to the USB port on a computer or laptop to view what you see down the microscope on the supplied software. Moticams are renowned for being easy to use and are available in a wide range of resolutions to suit almost any application.

The Moticam 'All in One Box' concept ensures that you have everything you need to get up and running quickly and easily. As well as the camera, a focusable coated glass lens, two

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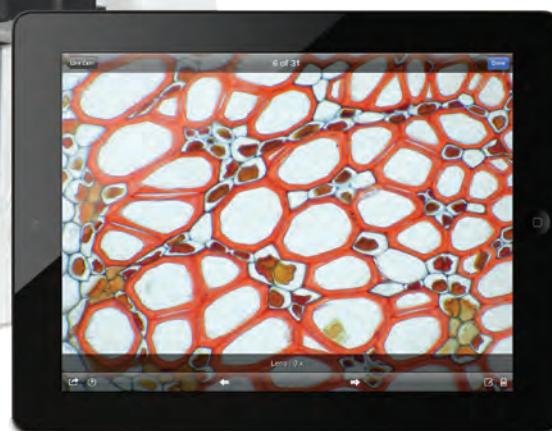
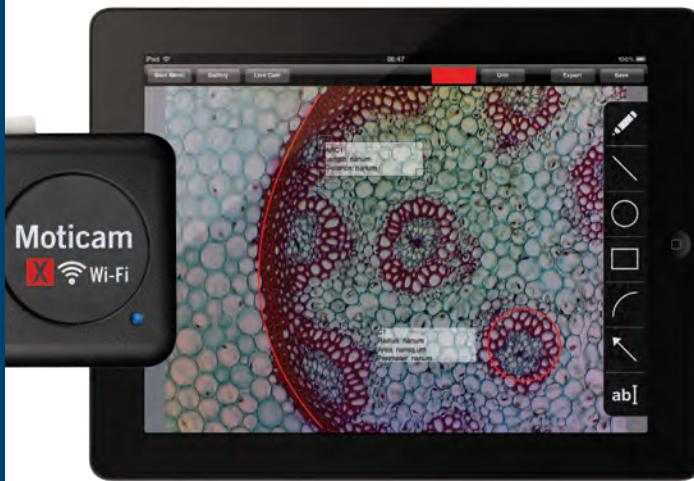
adjustable size eyepiece adapters that allow you to attach the camera to almost any microscope without removing the eyepiece, all necessary cables and free Motic Images Plus application software are included. A four dot calibration slide is also included to calibrate your Moticam enabling you to use the software to measure details precisely and annotate your image.

A Macro Viewing Tube is also supplied which means that the camera can be used in conjunction with the lens without a microscope.

Please note that to use a Moticam camera with the trinocular tube of your microscope, a C-mount adapter specific to your microscope will be required



Microscope and tablet not included



Moticam Digital Microscope Camera

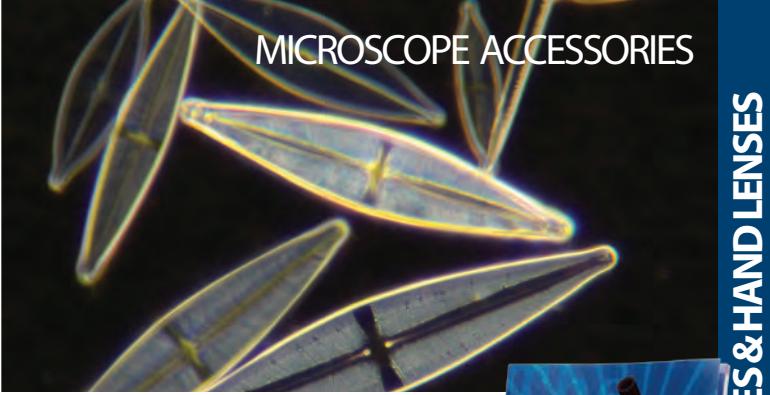
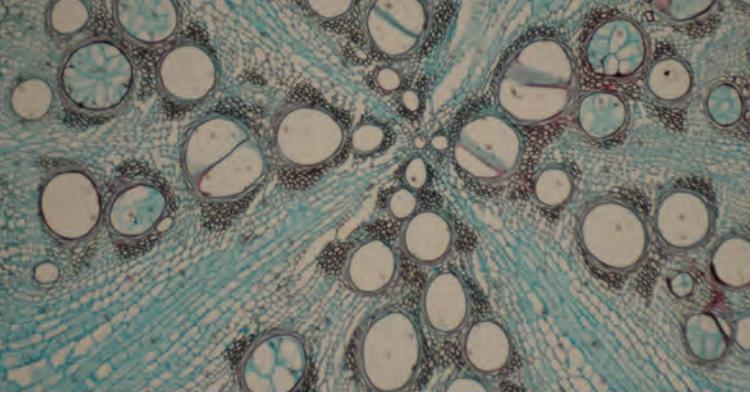
The Moticam range is available in four models: the entry-level Moticam 1 (0.5 Megapixels), the Moticam 1SP (1.3 Megapixels) which is great for laptop screens, the high resolution Moticam 3 (3 Megapixels) and the Moticam X (1.3 Megapixels, Wi-fi model). The Moticam X allows you to stream the images on your microscope to up to six Android (4.0 and higher) or iOS tablets (iOS 5 and higher) using wireless technology and a free viewing app, MoticConnect. This facility allows you to view, measure and annotate live images from your microscopes and is perfect for sharing microscope images with a class.

(Prices exclude VAT)

	\$	€	£
208918 Moticam 1 - 0.5MP	\$212	€186	£137.50
208919 Moticam 1SP - 1.3MP	\$354	€311	£229.17
208920 Moticam 3 - 3MP	\$836	€735	£541.67
208921 Moticam X - 1.3MP, WiFi	\$418	€367	£270.83

► Motic Images Plus Software

Motic Images Plus is suitable for live microscopy imaging and provides professional results but is easy to use. It offers both basic and advanced image control options, filters and colour correction. The measurement tools can be used on live images and captured ones and measurement data can be exported for further analysis. The software also provides video recording and time lapse capture functionality. Motic Images Plus is compatible with Windows XP / Vista / 7 / 8 and MAC OSX. The software has Direct Show and Twain compatibility for integration into third-party application programs.



Eyecups for Stereo Microscopes

These rubber eyecups are easy to attach and remove and provide extra comfort for the user. They are suitable for use with the MX1, MX3, IMX2 and BMX3 Stereo Microscopes. Sold in a pack of two.



	\$	€	£
186779 Eyecups	\$7	€6	£4.58

Sectioning Razor

A right-handed sectioning razor for the detailed preparation of plant specimens. It is flat ground on one side for section cutting.



	\$	€	£
188818 Sectioning Razor	\$13	€11	£8.32

Microscope Slides

A pack of 50 plain microscope slides. Each slide measures 7.5 x 2.5cm and has ground edges.



	\$	€	£
186362 Pack of 50 slides	\$6	€5	£3.74

Slide Card Tray

A cardboard tray to hold nine microscope slides stored flat. Trays are stackable and can be placed on top of each other without damaging the slides.



	\$	€	£
186382 Slide Card Tray	\$3	€3	£2.08

Dissecting Pins

A pack of 10 stainless steel dissecting/insect pins. Each pin has a diameter of 0.71mm and a length of 33mm.



	\$	€	£
188789 Dissecting Pins	\$5	€5	£3.32

LAB SUPPLIES & SAMPLE CONTAINERS ▶ PAGE 128-129



Beginner's Microscopy Kit

This kit is ideal for beginners of all ages and provides everything you need to begin making slide preparations. The stain contained within the kit is Methylene Blue which makes the nuclei of cells more easily observable. The kit contains The Ultimate Guide to your Microscope, 50 x slides, 100 x coverslips, 10 x cavity well slides, 50 x slide labels, 10 x pipettes, 2 x watch glasses, mountant, Methylene Blue stain and 3 pairs of gloves.

(Prices exclude VAT)

	\$	€	£
211325 Beginner's Microscopy Kit	\$42	€37	£27.46



Single Edge Razor Blades

These single edge safety razor blades are ideal for fine specimen cutting. One edge is moulded as a grip and the blade is protected by a card sleeve. One pack contains 10 blades. You must be over 18 years of age to buy this product.

(Prices exclude VAT)

	\$	€	£
186354 Single Edge Razor Blades	\$5	€5	£3.32



Coverslips

Glass cover slips for both plain and cavity well microscope slides. Each pack contains 100 coverslips.

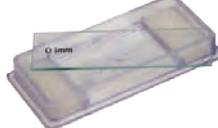


(Prices exclude VAT)

	\$	€	£
186378 Square (22 x 22mm)	\$4	€4	£2.91
186376 Round (19mm diameter)	\$13	€11	£8.33
186379 Rectangular (22 x 40mm)	\$7	€6	£4.58

Stage Micrometer

This stage micrometer can be used in conjunction with an eyepiece micrometer to allow accurate measurement of specimens when viewed under any microscope. Micrometer scale is 1cm divided into 100 parts.



(Prices exclude VAT)

	\$	€	£
186894 Stage Micrometer	\$39	€34	£24.99

Staining Jar and Block

This glass Copline staining jar can be used to stain up to 10 slides at once. The staining block has a 30mm diameter, 10mm deep cavity well and comes with a glass lid.



(Prices exclude VAT)

	\$	€	£
188826 Staining Jar	\$12	€10	£7.49
188808 Staining Block	\$9	€8	£5.82

Storkbill Forceps

Flexible watch-spring forceps, suitable for delicate specimens.

	\$	€	£
188629 Fine Blunt Forceps	\$15	€14	£9.99
188628 Fine Pointed Forceps	\$18	€16	£11.66
188630 Short Blunt Forceps	\$11	€10	£7.08

Slide Box

A plastic slide box in blue and white with a clasp. There are 50 slots for standard 7.5 x 2.5cm microscope slides. An index list is also included.



	\$	€	£
187081 Slide Box	\$4	€3	£2.49

Watch Glass

Watch glass suitable for specimen staining and manipulation. Available in singles or in packs of 10.



	\$	€	£
188828 Watch Glass: Single	\$2	€2	£1.24
188829 Watch Glass: Pack of 10	\$17	€15	£10.83



Wash Bottle

A 250ml plastic wash bottle with flexible spout and screw-top lid.

	\$	€	£
188803 Wash Bottle	\$5	€5	£3.32

DIGITAL MICROSCOPES

► Dino-Lite Digital USB Microscopes

Dino-Lite Digital Microscopes are compact and versatile microscopes that plug directly into your computer via the USB port (with the exception of the AMK4012 range which are supplied with a digital viewer/recorder and have an AV output).

A large range of models are available to suit individual needs and budgets. These range from entry-level microscopes such as the AM2111, which are great for schools and amateur wildlife enthusiasts, to Premier and Professional models which include high-performance and high-resolution technology in a compact and robust body. Additional features, such as a built-in polariser or changeable end caps, improve the versatility of these microscopes.

Dino-Lites are supplied with DinoCapture 2.0 software for Windows and DinoXcope software for MacOS (not all models are compatible with Mac systems so please check specifications carefully). Dino-Lite USB microscopes can also be used as a standard webcam with applications such as MSN Messenger and Skype, allowing groups of remote users to view the microscope output.



BUYERS GUIDE ► 2015



AM2111 Dino-Lite Basic USB Digital Microscope

• Affordable USB microscope for enthusiasts and educational use

The AM2111 is simple to use and has enhanced colour rendering, a high speed USB 2.0 interface as well as Windows and Mac OS support. It allows variable magnification of up to 200x and constant white light illumination is provided by the four in-built LEDs. It features 640x480 pixel resolution and can record videos at 30fps. This microscope comes with DinoCapture software for Windows and DinoXcope software for Mac. This software will allow you to save and share your images and videos as well as annotate your pictures.

(Prices exclude VAT)

\$
€
£

190225 AM2111

\$135 €119 £87.50



DINO-LITE COMPARISON

MODEL	MAGNIFICATION	RESOLUTION	MICROTOUCH	CHANGEABLE END CAPS	POLARISER	LONGER WORKING DISTANCE	AUTO MAGNIFICATION READING	EDR / EDF*	PRICE
AM2111	10x–70x, 200x	640x480	No	No	No	No	No	No	£87.50
AM3113T	10x–60x, 200x	640x480	Yes	No	No	No	No	No	£189.58
AM4113T	10x–50x, 200x	1280x1024	Yes	No	No	No	No	No	£260.83
AM4113ZT	10x–50x, 200x	1280x1024	Yes	No	Yes	No	No	No	£324.17
AM4113TL	20x–90x	1280x1024	Yes	No	No	Yes	No	No	£299.17
AM4113T5	500x	1280x1024	Yes	No	No	No	No	No	£299.16
AMK4012T	10x–60x, 200x	640x480	No	No	No	No	No	No	£508.29
AMK4012ZT	10x–60x, 200x	640x480	No	No	Yes	No	No	No	£546.66
AM4515T	20x–220x	1280x1024	Yes	Yes	No	No	Yes	No	£432.46
AM4515ZT	20x–220x	1280x1024	Yes	Yes	Yes	No	Yes	No	£618.29
AM4815T	20x–220x	1280x1024	Yes	Yes	No	No	No	Yes	£551.66
AM4815ZT	20x–220x	1280x1024	Yes	Yes	Yes	No	No	Yes	£618.29
AM7013MT	10x–50x, 200x (20x–100x, 400x)	2592x1944	Yes	No	No	No	No	No	£541.67
AM7013MZT	10x–50x, 200x (20x–100x, 400x)	2592x1944	Yes	No	Yes	No	No	No	£594.17

* Extended Dynamic Range / Extended Depth of Field (See page 124)



AM4113T Dino-Lite Pro USB Digital Microscope

•Designed for professional use

All Dino-Lites in the AM4113T range have a 1.3MP image sensor which produces 1280x1024 resolution images. Videos are recorded at 30fps. Magnification of 10x-50x is controlled by the sensitive thumbwheel and an additional 200x setting is available. The MicroTouch function allows a snapshot to be taken by lightly touching the sensor area and eight built-in LEDs provide good subject illumination.

The AM4113T is also available with additional features: The AM4113ZT has a polariser which helps reduce the effect of reflections and glare. The AM4113TL features a longer working distance, ideal for providing access to the specimen beneath the microscope. The AM4113T5 has a fixed 500x magnification and fine focus control.



(Prices exclude VAT)

	\$	€	£
190253 AM4113T	\$402	€354	£260.83
190263 AM4113ZT with Polariser	\$500	€440	£324.17
190259 AM4113TL with Enhanced Working Distance	\$462	€406	£299.17
190280 AM4113T5 with 5MP Resolution	\$462	€406	£299.16

AMK4012T Dino-Lite Mobile Digital Microscope

•Mobile, computer-free microscopy solution

The AMK4012T combines a standard Dino-Lite digital microscope with a portable digital recorder. View pictures and videos on the 13cm screen and simultaneously record onto an SD card (4GB card provided). An AV cable is also provided which allows connection to a TV monitor. The AMK4012T has a magnification range of 10x-60x and 200x and produces 640x480 resolution images. A touch sensor allows the eight LED built-in illumination to be switched on and off. Also available with a polariser (AMK4012ZT).

(Prices exclude VAT)

	\$	€	£
218708 AMK4012T	\$784	€689	£508.29
218709 AMK4012ZT with Polariser	\$843	€741	£546.66

► Dino-Lites for Professional Users

Dino-Lite Premier and Professional models have a large selection of features to suit a range of applications. All models come with Dino-Capture or DinoXcope software which will let you measure your specimen: length, angle and circle circumference can all be calculated and added to the image as text. A calibration function lets you calibrate against a known measurement for improved accuracy. Some models, such as the AM4515T, will even input the magnification value automatically instead of manually inputting it from the microscope dial.

For viewing reflective objects or specimens in liquid, models with a polariser are available. This can be switched on as required to reduce glare and improve image clarity. Models with longer working distance are ideal for tasks where the operator needs to interact with the object being observed, for example during dissection. Other tools include enhanced dynamic range and extended depth of field, which are available in the AM4815T. These allow you to stack together images taken at different exposure levels or depths of field to create a picture with greater clarity throughout.

Various accessories are also available to purchase separately, including a selection of mounting options. Choose between pole stands, desktop tripods or a rotating table. A WiFi Streamer will also allow you to transmit images to up to ten devices; an obvious benefit in educational or group research environments.

AM3113T Dino-Lite Premier USB Digital Microscope

•Excellent mid-range USB microscope



The AM3113T provides variable magnification of 10x-60x and a further 200x magnification setting is possible when the microscope is held directly above the specimen. Eight white LEDs provide illumination of the specimen and are controlled with the provided software. A sensitive MicroTouch button allows a snapshot to be taken with minimum camera shake. This model produces 640x480 resolution images and records videos at 30fps. The included DinoCapture (Windows) and DinoXcope (Mac) software allows output to be saved, shared and annotated and also includes a measurement function.

(Prices exclude VAT)

	\$	€	£
218689 AM3113T	\$293	€257	£189.58





BUYERS GUIDE ▶ 2015

► Dino-Lite Edge Series Digital USB Microscopes

The Dino-Lite Edge Series of USB microscopes are designed for professional users and provide excellent image quality. Their high performance optics provide sharp images with natural colour and minimal aberration or vignetting. All microscopes in the Edge range come with a selection of end caps: A closed cap protects the lens when working in dusty environments or when viewing liquids and a diffuser cap helps to spread light on the object evenly. When used without a cap, an improved working distance can be achieved. Side light and extension caps are also included.

Extended Dynamic Range and Extended Depth of Field

The AM4815T and AM4815ZT have advanced capture modes which let you stack together multiple images in order to provide improved clarity and focus.

Extended Depth of Field (EDOF)

To view a rough surface which has a height range exceeding the depth of focus, the EDOF capture mode will take several pictures at slightly different focal lengths and stack them automatically with just one click. The resulting image has maximum amount of focus throughout the whole subject. Picture qualities from the original images are maintained and they can be viewed individually in DinoCapture if required.

Extended Dynamic Range (EDR)

For objects which are reflective or have high contrast between light and dark areas, the EDR function will allow you to stack together images taken at different exposure levels. This will produce an image with more consistent lighting throughout and will help to reveal the detail of the darkest and brightest areas.



AM4515T Dino-Lite Edge USB Microscope

With automatic magnification reading

The AM4515T combines sharp picture quality, comprehensive measurement functions and the additional flexibility of interchangeable end caps. A thumbwheel control adjusts the magnification between 20x and 220x and eight white LEDs provide good illumination. Images have a resolution of 1280x1024 and videos are viewed and recorded at 30fps. Working with the provided software, DinoCapture 2.0, the AM4515T will detect and display the magnification automatically and will store it with the captured picture, helping to minimise user error and improve accuracy. Also available with a polariser (AM4515ZT) Compatible with Windows only.

(Prices exclude VAT)

	\$	€	£
215975 AM4515T	\$667	€586	£432.46
215976 AM4515ZT with Polariser	\$954	€838	£618.29

AM7013MT Dino-Lite 5MP USB Digital Microscope

Highest resolution Dino-Lite

The Dino-Lite 5MP range provides 5MP images (up to 2592x1944) and represents the highest resolution Dino-Lite to date. The high-performance image sensor, excellent optics, low noise electronic design and robust metal housing ensure industry-leading quality and performance.

DinoCapture 2.0 software is included with the microscope, featuring comprehensive software measurement functionality with calibration. A feature unique to the 5MP models is the innovative 2x magnification mode (only available when operating at 1.3MP resolution). This mode provides an additional 2x magnification factor and effectively doubles the magnification range of the device for additional flexibility.

The AM7013MZT model has an adjustable polariser, allowing superior surface detail to be captured on reflective surfaces.

NOTE: The 5MP Dino-Lite models do not currently support Mac OS. Please see the Dino-Lite 1.3MP (AM4113T) range for Mac OS support. For operation at the full 2592x1944 resolution an MJPEG Codec is required (not supplied).

(Prices exclude VAT)

	\$	€	£
196580 AM7013MT	\$836	€735	£541.67
196581 AM7013MZT with Polariser	\$917	€806	£594.17

AM4815T Dino-Lite Edge USB Microscope

Extended dynamic range and extended depth of field functions

The AM4815T produces 1280x1024 images and 30fps videos and has an impressive field of view. Magnification is adjustable between 20x and 220x and the built-in white LED illumination has software on/off control. This model features Extended Dynamic Range (EDR) and Extended Depth of Field (EDOF) functions (see information box). Extended dynamic range enables you to reveal the details of darker or brighter areas within the object by stacking together images at different exposure levels. Extended depth of field stacks images taken at different focus levels to improve the depth of field on rough or uneven surfaces. A detachable front cap design and provision of additional caps makes this microscope suitable for a diverse range of applications. Compatible with Windows only.

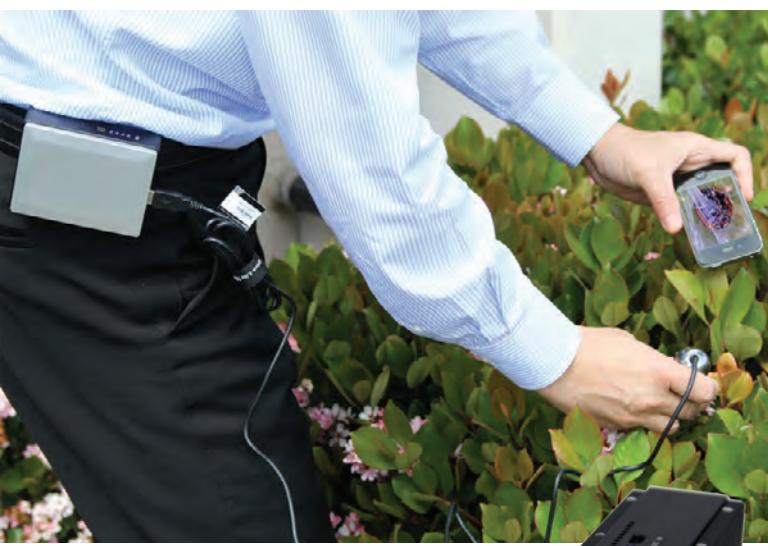
(Prices exclude VAT)

	\$	€	£
215980 AM4815T	\$851	€748	£551.66
215981 AM4815ZT with Polariser	\$954	€838	£618.29





DIGITAL MICROSCOPES



Dino-Lite WiFi Streamer (MSVC72W)

The Dino-Lite WiFi Streamer allows you to broadcast the images from your USB microscope to up to ten devices within a 15m (50') range, making it ideal for group research projects as well as educational settings. Images can be viewed using either the WiFi Scope app (available for Apple and Android devices) or through any standard web browser.



The WiFi Streamer connects to your Dino-Lite microscope using a standard USB connection. Four LEDs provide information on remaining battery life and a 12V power adapter is provided to charge the unit. Active battery time is approximately six hours.

Please note that the WiFi Streamer is not compatible with all Dino-Lite models. Contact us for more information.

(Prices exclude VAT)

217024 WiFi Streamer \$509 €447 £330.00

MS33W Dino-Lite Articulated Desk Stand

The MS33W Articulated Desk Stand provides a steady mount for the Dino-Lite range of microscopes. The 30cm articulated arm allows the microscope to be positioned at awkward angles and into positions that can be hard to achieve with other types of stands. Includes a fine focus adjustment which allows the height of the arm to be adjusted by approximately 15mm.

(Prices exclude VAT)

190298 MS33W Dino-Lite Articulated Desk Stand \$80 €70 £51.66



MS15X Dino-Lite X-Y Base with Removable Rotating Table

The MS15X X-Y Base provides fine X-Y or rotational control over the specimen being examined. Used without the rotating table the MS15X provides a 137mm x 105mm platform with 33mm of fine control in both the X and Y directions. Used with the rotating table the MS15X provides a 55mm diameter platform with 360 degree of rotation. Can be used with the MS35B or MS36B pole stands.

(Prices exclude VAT)

190294 MS15X Dino-Lite X-Y Base \$220 €193 £142.50



Dino-Lite Desktop Tripods

The MSDIGI-R Mini Desktop Tripod is flexible, and lightweight. The ball and socket head allows you to position the microscope at any angle while the flexible legs provide for quick and simple adjustment of the tripod. The MSP-PR01 Professional Tripod provides a more stable platform. The pan-tilt head allows you to position and fix the microscope angle and the two section legs, with additional sucker on the central column, provide a very stable base.

(Prices exclude VAT)

	\$	€	£
190323 MSDIGI-R Mini Desktop Tripod	\$46	€41	£30.00
190322 MSP-PR01 Professional Desktop Tripod	\$77	€68	£49.99

Dino-Lite Pole Stands

The MS35B Dino-Lite Pole Stand with Focusing Holder is a compact pole stand, which provides up to 23cm of working distance. A fine focus wheel on the focus block provides up to 5cm of height adjustment. It also features a ball and socket head attachment for the microscope holder allowing the microscope angle to be adjusted. The MS36B has a boom arm which provides for up to 32cm horizontal reach as well as 360° rotation of the microscope. This MS36B includes the stand (self assembly required) a Dino-Lite microscope holster and cable tidy straps.



(Prices exclude VAT)

	\$	€	£
190287 MS35B Pole Stand with Focusing Holder	\$154	€136	£100.00
190292 MS36B Pole Stand with Focusing Holder and Boom Arm	\$206	€181	£133.33

MS12C Dino-Lite Adjustable Cradle Stand

The MS12C Adjustable Cradle Stand is a portable cradle stand with two insert adapters allowing you to position the Dino-Lite at three fixed working distances. This allows magnification of approximately 18x, 25x & 40x. The open front of the cradle base allows you to place and manipulate small items in the microscope view. Not suitable for use with the fixed cap x500 models or with the fixed cap polarizing models.



(Prices exclude VAT)

	\$	€	£
190324 MS12C Dino-Lite Adjustable Cradle Stand	\$50	€44	£32.49

Dino-Lite 1/4" Tripod Adapter

This tripod adapter allows your Dino-Lite to be used with any tripod or stand system that provides a 1/4" tripod screw mount. Comes with 2 x 20mm extension rods that also act as 1/4" to M6 and M6 to 1/4" thread converters.



(Prices exclude VAT)

	\$	€	£
190327 1/4" Tripod Adapter	\$38	€34	£24.74



CHOOSING YOUR HAND LENS

Singlet Lenses - are made from a single optical element. They normally provide excellent image quality in the centre of the lens with some slight distortion of colour and shape towards the edges.

Doublet Lenses - are designed to limit the effects of distortion towards the edges of a lens. Doublet lenses are composed of two separate optical elements that have been cemented together.

Triplet Lenses - are constructed from three separate optical elements that have been cemented together. In combination they eliminate most of the chromatic and spherical distortion from the outer edge of the lens giving a colour corrected image. This is the best lens technology available in a hand lens.

Belomo Triplet Loupe

• High quality triple achromatic lens

The Belomo loupe's large triplet lens provides a sharp, bright, clear and undistorted view. It is the most often recommended 10x loupe of geologists, macro photographers, entomologists and botanists around the world.

10x magnification with 20mm viewing field. It has a focal distance of 28mm and a 17mm linear field of view. The Belomo is coated in a matte black finish to prevent reflections. Dimensions: 26 x 28 x 25mm, Weight: 63g.

(Prices exclude VAT)

193311 Belomo Triplet Loupe



\$ € £
\$46 €41 £29.99

Kite Optics Triplet Loupe

• 10x or 20x magnification

This triplet loupe hand lens provides crystal clear images with great depth of field thanks to its three lens elements. With a magnification of either 10x or 20x and lens diameter of 21mm, it is perfect for fine detail examination of specimens. The durable aluminium body protects the loupe when not in use and a lanyard can easily be attached. Leather case included.

(Prices exclude VAT)

202598 Kite Triplet Loupe: 10x
\$37 €33 £24.16
202599 Kite Triplet Loupe: 20x
\$42 €37 £27.08



\$ € £
\$37 €33 £24.16
\$42 €37 £27.08

'Triplet' Loupe

• As recommended by the BBC Wildlife Magazine

Rated a Best Buy in the BBC Wildlife magazine hand lens review 2008. It is popular in a wide range of professions including entomology, botany, and geology. A singlet lens (the brand name is 'Triplet') with 10x magnification and a large 21mm viewing field (lens diameter).

(Prices exclude VAT)

181284 Singlet Loupe 10x 21mm



\$ € £
\$13 €11 £8.33

Duel 'Triplet' Loupe

• 10x and 20x singlet lenses

Two singlet lenses (the brand name is 'Triplet') in one housing offering a choice of magnification. 10x magnification with 18mm viewing field (lens diameter) and 20x magnification with 12mm viewing field. Chromed metal construction.

(Prices exclude VAT)

181286 Duel Singlet Loupe 10x 18mm, 20x 12mm



\$ € £
\$17 €15 £10.83



BESTSELLER

Opticron Doublet Hand Lens

• 6x, 10x or 15x doublet lens

These reliably high-quality lenses from Opticron provide excellent distortion-free magnification. Comprising a doublet lens in a chrome plated housing they also have a useful metal hoop for attaching a lanyard.

Available with 18mm or 23mm lens diameter and 6x, 10x or 15x magnification. For general purpose fieldwork we recommend the 10x 23mm.

(Prices exclude VAT)

	\$	€	£
174484 Opticron Hand Lens: 18mm, 6x	\$14	€12	£9.16
210076 Opticron Hand Lens: 23mm, 6x	\$17	€15	£10.83
210078 Opticron Hand Lens: 18mm, 10x	\$15	€13	£9.58
210079 Opticron Hand Lens: 23mm, 10x	\$17	€15	£10.79
210080 Opticron Hand Lens: 18mm, 15x	\$17	€15	£10.79
210081 Opticron Hand Lens: 23mm, 15x	\$19	€16	£12.08

Gowlland Hand Lens

• Lightweight and economical

The Gowlland hand lens is an economical plastic loupe perfect for the beginner or younger naturalist. It has a lens diameter of 15mm and is available with magnification of 5x, 8x or 10x.

(Prices exclude VAT)

	\$	€	£
193529 Gowlland Hand Lens: 5x	\$5	€5	£3.33
193530 Gowlland Hand Lens: 8x	\$5	€5	£3.42
193531 Gowlland Hand Lens: 10x	\$5	€5	£3.50



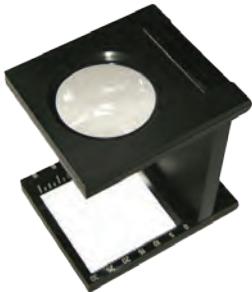
Folding Linen Tester Loupe

• Millimetre and inch scale

Lightweight stand magnifier with 5x, 6x or 8x magnification with millimetre and inch scale in the base. The magnifier folds down making it a compact tool, ideal for work in the field. Measures only 51 x 40 x 15mm when folded.

(Prices exclude VAT)

	\$	€	£
193024 Linen Tester Loupe: x5	\$11	€10	£7.08
181294 Linen Tester Loupe: x6	\$21	€18	£13.33
196499 Linen Tester Loupe: x8	\$21	€18	£13.29



Bug Box Magnifying Pot**•Great for Bioblitz events**

A clear plastic pot with a snap-on magnifying lid and x3.5 magnification ideal for viewing pond life and terrestrial invertebrates up close. The base of the pot has a handy grid for estimating size. The pot is made from high grade optical acrylic ensuring perfect clarity. Measuring 7cm in diameter and 6cm in height, the box is large enough for most bugs and insects and small enough to be a useful addition to your field kit.



(Prices exclude VAT)

	\$	€	£
175974 Bug Box Magnifying Pot	\$5	€4	£3.00

Magnifying Pot (5x magnification)**•High quality lens and screw-fit lid**

This loupe-box magnifies by 5x. Perfect for looking at terrestrial or aquatic invertebrates, and can also be used to store samples. The top lid has an integrated lens and can be screwed on and off (tightly if needed). The lens is manufactured in Germany and is of premium quality. There is a 4cm scale on the base of the pot which can be used for measurement of contents.



(Prices exclude VAT)

	\$	€	£
181291 Magnifying Pot	\$19	€17	£12.49

Stand Loupe with 0.1mm Scale**•Robust and lightweight, ideal for fieldwork**

This compact stand magnifier has a 24mm diameter lens and 8x magnification. The base has a 10mm scale with 0.1mm divisions. This is a useful feature that allows you to take accurate measurements of viewed specimens. Robust and lightweight it is ideal for carrying into the field.



(Prices exclude VAT)

	\$	€	£
193317 Stand Loupe	\$17	€15	£10.79

HILKINSON RUPER HANDS LENSES**Hilkinson Ruper Hand Lens****•6x, 8x, 10x or 15x single lens**

These Hilkinson Rupers are compact and robust and feature a swivel casing which will protect the lens whilst stored in a pocket or bag. They are available with a 12mm, 20mm or 25mm diameter lens and with 6x, 8x, 10x or 16x magnification.

(Prices exclude VAT)

	\$	€	£
217807 12mm 10x	\$14	€12	£9.16
217808 12mm 16x	\$23	€20	£14.99
217810 20mm 8x	\$23	€20	£14.99
217811 20mm 10x	\$32	€28	£20.79
217812 25mm 6x	\$35	€30	£22.49
217813 25mm 8x	\$39	€34	£24.96

**LENSES & MAGNIFIERS****Magnification Box****•3x or 4x magnification**

These square, clear specimen boxes are made from lightweight acrylic and have a push-on magnifying lid. They are ideal for small finds that are hard to see. The small box measures 25 x 25mm and has a x4 magnifier in the top. The large box measures 38 x 38mm and has a x3 magnifier.



(Prices exclude VAT)

	\$	€	£
193749 Magnification Box: Small	\$2	€1	£1.08

	\$	€	£
193750 Magnification Box: Large	\$2	€2	£1.16

Ultra Optix Magnifier**•High quality, distortion free lens**

This large hand lens has an optical quality, 125mm 2.5x lens with 6x bifocal insert (non LED) or a 138mm 1.8x lens with 5x insert (LED). Unbreakable and scratch resistant. Available with and without LED illumination. The LED version requires 4 x AAA battery (not included).



(Prices exclude VAT)

	\$	€	£
217164 Ultra Optix with LED	\$42	€37	£27.49

	\$	€	£
209909 Ultra Optix without LED	\$30	€27	£19.58

**Hilkinson Ruper Double Hand Lens****•10x and 20x or 8x and 15x magnification**

These double lenses from Hilkinson provide two hand lenses in one. The Hilkinson Ruper Double Lens is available with 18mm and 6mm lens diameters with 10x and 20x magnification respectively, or with 25mm and 12mm lens diameters which have 8x and 15x magnification.

(Prices exclude VAT)

	\$	€	£
217889 18mm 10x, 6mm 20x	\$32	€28	£20.79

	\$	€	£
217890 25mm 8x, 12mm 15x	\$45	€40	£29.16

Hilkinson Ruper Triple Hand Lens**•Three magnifications lenses**

This Hilkinson Ruper Triple Hand Lens has three 20mm lenses with 3x, 4x and 5x magnification which can be used singly or in any combination. When not in use the lenses can be tucked away inside the compact and robust metal casing, keeping them protected from scratches and bumps.



(Prices exclude VAT)

	\$	€	£
217894 Triple Hand Lens	\$33	€29	£21.66

LAB SUPPLIES

Bondline Precision Forceps

High quality precision instruments produced using a non-magnetic anti-acid stainless steel alloy. Supplied in a plastic sleeve with protective cap over tips.



(Prices exclude VAT)

		\$	€	£	
185513		B15AGW Strong cutting forceps	\$45	€40	£29.16
193573		B1SA General use	\$8	€7	£4.99
185511		B20aSA Fine tips with serrations inside	\$8	€7	£4.99
188891		B2aSA Rounded thin tips	\$8	€7	£4.99
185504		B2SA Medium pointed tips	\$8	€7	£4.99
185503		B3cSA General use	\$8	€7	£4.99
185506		B5SA Super fine points	\$8	€7	£4.99
185512		B60SA Extra long with narrow handles	\$8	€7	£5.41
185509		B7SA Curved super fine points	\$9	€8	£5.82
188892		B0cSA Small strong tweezers	\$7	€6	£4.74
193574		B00SA Very strong, general purpose	\$10	€8	£6.24

Storkbill Forceps

Flexible 'watch spring' forceps, suitable for delicate specimens.

		\$	€	£	
188629		Storkbill Fine Blunt Forceps	\$15	€14	£9.99
188628		Storkbill Fine Pointed Forceps	\$18	€16	£11.66
188630		Storkbill Short Blunt Forceps	\$11	€10	£7.08



Needles and Spatulas

Stainless steel Spatula and Mounted Needle.

		\$	€	£	
186357		Mounted Needle	\$3	€3	£2.08
193304		Spatula	\$4	€3	£2.49

Graduated Pasteur Pipettes (non-sterile)

Manufactured from low-density polyethylene which is chemically inert and non-toxic.

		\$	€	£
180190	1ml: (Pack of 10)	\$1	€1	£0.83
180267	1ml: (Pack of 100)	\$12	€10	£7.50
180191	3ml: (Pack of 10)	\$1	€1	£0.83
180268	3ml: (Pack of 100)	\$12	€10	£7.50
193302	7.3ml: (Pack of 10)	\$4	€3	£2.38



Scalpel Handles

Made from nickel alloy.

No. 3: 95mm long. Takes blade sizes 10–15.

No. 4: 140mm long. Takes blade sizes 20–25.

No. 4L: 180mm long. Takes blade sizes 20–25.

(Prices exclude VAT)	\$	€	£	
193561	No. 3	\$19	€11	£4.99
193562	No. 4	\$10	€9	£6.67
193563	No. 4L	\$19	€17	£12.49



Blade sizes 10, 10a, 11, 12 and 15 will fit handle sizes 3, 5 and 7.

Blade sizes 20, 21, 22, 22a, 23, 24 and 25 will fit handle sizes 4 and 4L.

Scalpel Blades

Non-sterile carbon steel surgical blades in sealed foil packs of ten. Assorted Blade sizes.

(Prices exclude VAT)	\$	€	£	
193590	Size 10	\$3	€2	£1.66
193591	Size 10a	\$3	€2	£1.66
193592	Size 11	\$3	€2	£1.66
193593	Size 12	\$3	€2	£1.66
193594	Size 15	\$3	€2	£1.66
193595	Size 20	\$3	€2	£1.66
193596	Size 21	\$3	€2	£1.66
193597	Size 22	\$3	€2	£1.66
193599	Size 23	\$3	€2	£1.66
193600	Size 24	\$3	€2	£1.66
193601	Size 25	\$3	€2	£1.66



Graduated 10ml Pipette

A 10ml graduated plastic pipette. Available in singles or packs of ten. To use this pipette you will also require a pipette filler. The filler is made from rubber and its function is controlled by squeezing the appropriate valves between thumb and forefinger.

(Prices exclude VAT)	\$	€	£	
188812	10ml Graduated Pipette: Single	\$2	€2	£1.24
188814	10ml Graduated Pipette: Pack of 10	\$18	€16	£11.66
199931	Pipette Bulb Filler	\$18	€16	£11.66



Scissors

These stainless steel scissors are available with either blunt nose blades or fine pointed blades. The blunt nose scissors measure 140mm in length and have 50mm blades. The fine point scissors measure 115mm in length and have 30mm blades.

(Prices exclude VAT)	\$	€	£	
188815	Blunt Nose Scissors	\$5	€5	£3.33
188816	Fine Point Scissors	\$5	€5	£3.33



Dissection Kit

A full stainless steel dissection kit in a canvas roll bag. The kit contains: 2 x scissors (fine point and blunt nose), 2 x serrated tip forceps (fine point and blunt), 1 x non-serrated tip forceps (fine point), 1 x scalpel and blades, 1 x cutting needle, 1 x mounted needle and 1 x seeker. A replacement roll bag is also available to purchase separately.

(Prices exclude VAT)	\$	€	£	
186361	Dissection Kit	\$27	€24	£17.49
188788	Only Roll Bag	\$5	€5	£3.32



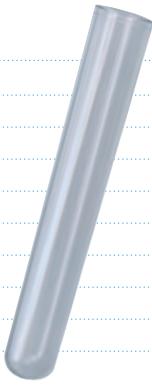
Plastic Test Tubes

Clear, rigid polystyrene tubes. Caps are also available to fit.

Test Tubes

(Prices exclude VAT)

	\$	€	£
193575 55mm x 12mm (Pack of 10)	\$2	€1	£1.00
193576 55mm x 12mm (Pack of 100)	\$12	€10	£7.49
193577 55mm x 12mm (Pack of 1000)	\$62	€54	£40.00
193578 75mm x 12mm (Pack of 10)	\$1	€1	£0.92
193579 75mm x 12mm (Pack of 100)	\$11	€10	£7.08
193580 75mm x 12mm (Pack of 1000)	\$55	€49	£35.83
193581 100mm x 16mm (Pack of 10)	\$2	€2	£1.24
193582 100mm x 16mm (Pack of 100)	\$14	€12	£9.16
193583 100mm x 16mm (Pack of 1000)	\$105	€93	£68.33

**Caps**

(Prices exclude VAT)

	\$	€	£
193532 12mm Caps (Pack of 10)	\$0	€0	£0.29
193533 12mm Caps (Pack of 100)	\$5	€4	£2.92
193534 12mm Caps (Pack of 1000)	\$42	€37	£27.49
193535 16mm Caps (Pack of 10)	\$1	€1	£0.46
193536 16mm Caps (Pack of 100)	\$7	€6	£4.38
193537 16mm Caps (Pack of 1000)	\$59	€52	£38.32

**Flip Top Containers**

Translucent shatterproof polypropylene containers with pop-on lids. Lids are hinged on the 60ml and 90ml containers. Non-sterile.

(Prices exclude VAT)

	\$	€	£
193544 60ml (Pack of 10)	\$3	€3	£2.08
193545 60ml (Pack of 100)	\$27	€24	£17.49
193538 90ml (Pack of 10)	\$4	€3	£2.50
193539 90ml (Pack of 100)	\$36	€32	£23.33
193546 200ml (Pack of 10)	\$4	€3	£2.50
193547 200ml (Pack of 100)	\$36	€32	£23.33
193540 400ml (Pack of 10)	\$6	€5	£3.75
193541 400ml (Pack of 100)	\$55	€49	£35.83
193542 960ml (Pack of 5)	\$8	€7	£5.21
193543 960ml (Pack of 50)	\$77	€68	£49.99

Petri Dishes

90mm triple-vent Petri Dishes for general lab and field use. Aseptically (non-sterile) produced from high quality rigid polystyrene.

(Prices exclude VAT)

	\$	€	£
210198 Pack of 10	\$3	€2	£1.66
210200 Pack of 100	\$26	€23	£16.66

**Self Seal Polythene Bags**

Self-sealing polybags in 200 gauge polythene. Useful for specimen samples such as soil, leaves or archaeological samples. With three write-on panels for easy labelling of specimens. Pack of 100.

(Prices exclude VAT)

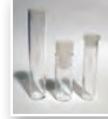
	\$	€	£
193790 Extra-Small: 57mm x 57mm	\$4	€3	£2.49
193791 Small: 102mm x 140mm	\$6	€6	£4.16
193792 Medium: 125mm x 190mm	\$8	€7	£5.41
193793 Large: 190mm x 190mm	\$9	€8	£5.82
193794 Extra-Large: 152mm x 228mm	\$9	€8	£5.82

**Straight Sided Sampling Containers****BESTSELLER**

See-through clear crystal rigid polystyrene jars with secure screw-on lids. Recommended for liquids. Non-sterile.

(Prices exclude VAT)

	\$	€	£
193795 30ml (Pack of 10)	\$4	€3	£2.49
193796 30ml (Pack of 100)	\$31	€27	£19.99
193751 60ml (Pack of 10)	\$5	€4	£3.00
193752 60ml (Pack of 100)	\$41	€36	£26.66
193753 100ml (Pack of 10)	\$7	€6	£4.79
193754 100ml (Pack of 100)	\$64	€57	£41.67
193755 180ml (Pack of 10)	\$10	€8	£6.25
193756 180ml (Pack of 100)	\$90	€79	£58.33

Plastic Specimen Tubes

High quality specimen tubes made from rigid polystyrene with push on caps.

(Prices exclude VAT)

	\$	€	£
180182 Small: 55mm x 11mm (Pack of 10)	\$2	€2	£1.25
180184 Small: 55mm x 11mm (Pack of 100)	\$18	€16	£11.66
180183 Medium: 41mm x 15mm (Pack of 10)	\$2	€2	£1.25
180185 Medium: 41mm x 15mm (Pack of 100)	\$18	€16	£11.66
191651 Large: 75mm x 15mm (Pack of 10)	\$2	€2	£1.25
191652 Large: 75mm x 15mm (Pack of 100)	\$18	€16	£11.66

Glass Specimen Tubes

High quality glass specimen tubes with push in caps.

(Prices exclude VAT)

	\$	€	£
180174 Small: 50mm x 12mm (Pack of 10)	\$3	€3	£2.17
180178 Small: 50mm x 12mm (Pack of 100)	\$30	€26	£19.16
180176 Medium: 50mm x 18mm (Pack of 10)	\$4	€3	£2.58
180179 Medium: 50mm x 18mm (Pack of 100)	\$35	€31	£22.92
180177 Large: 50mm x 24mm (Pack of 10)	\$5	€5	£3.54
180180 Large: 50mm x 24mm (Pack of 100)	\$48	€42	£30.82

**Wide-Mouth Containers**

Robust storage/sample containers blow-moulded from HDPE. Volume 500ml, height 12cm, diameter 6cm. Gradation scale on the side. Non-sterile.

(Prices exclude VAT)

	\$	€	£
193287 Pack of 5	\$8	€7	£5.42

**Lab Coats**

General purpose unisex lab coat made from 240gsm polyester/cotton mix. The front closure is a concealed press stud and there is one breast pocket and two side pockets to keep pens or lab essentials. The lab coat has rear vents and side access slits for ease of movement.

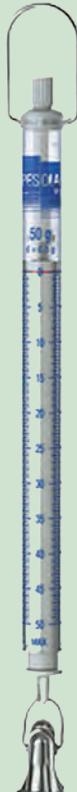
(Prices exclude VAT)

	\$	€	£
202523 Small: 34" chest	\$17	€15	£11.25
202656 Medium: 38" chest	\$17	€15	£11.25
202657 Large: 44" chest	\$17	€15	£11.25
202658 Extra-Large: 48" chest	\$17	€15	£11.25

SCALES & BALANCES

► Pesola - Swiss Made Precision Scales & Balances

Pesola scales are universally acclaimed for their precision, durability and reliability. They don't require any batteries, and every scale is adjusted by hand with a guaranteed accuracy of $\pm 0.3\%$.



Pesola LightLine

Ultra-lightweight scales ideal for field work. Transparent tube.

(Prices exclude VAT)

\$ € £

Metric

176687	LightLine 10g	\$37	€33	£24.16
176688	LightLine 20g	\$35	€31	£22.92
176690	LightLine 50g	\$35	€31	£22.92
176691	LightLine 100g	\$35	€31	£22.92
176692	LightLine 500g	\$35	€31	£22.92
176693	LightLine 1000g	\$42	€37	£27.08

Newton (Pressure)

193555	LightLine 1N	\$35	€31	£22.92
193556	LightLine 5N	\$35	€31	£22.92
193557	LightLine 10N	\$42	€37	£27.08



Pesola MicroLine

Durable anodised aluminium tube, interchangeable suspension.

(Prices exclude VAT)

\$ € £

Metric

193759	MicroLine 10g	\$55	€48	£35.42
193757	MicroLine 30g	\$48	€42	£31.25
193763	MicroLine 60g	\$49	€44	£32.08
193758	MicroLine 100g	\$48	€42	£31.25

Metric/Imperial

193760	MicroLine 30g/1oz	\$53	€46	£34.16
193761	MicroLine 100g/3.5oz	\$53	€46	£34.16

Newton (Pressure)

193762	MicroLine 1N	\$53	€46	£34.16
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The 50g LightLine is recommended for dormice and other small mammals. The scales can be zeroed using the dial at the top to allow weighing in a bag.

MicroLine balances are hardwearing and recommended for weighing bats (30g) and medium sized passerine birds (100g) and mammals.

► Pesola/Tanita Electronic Scales

These digital scales from Switzerland are accurate, reliable and designed for the professional user.

Pesola MS500 Digital Pocket Scale

- Capacity: 500g, Divisions: 0.1g
- Units: g, oz, dwt, gn
- Power: 2 x AA batteries (included)

Professional digital pocket scale. Flat design with a protective hinged cover ideal for carrying in a pocket. The MS500 has extreme overload resistance and gives very precise measuring results even at the edges of the platform. The large platform is the highest element of the scale, allowing you to weigh oversize items. Two year warranty.

(Prices exclude VAT)

176700 Pesola MS500 Digital Pocket Scale



\$ € £

\$71 €63 £46.25

Pesola PPS200 Professional Digital Pocket Scale

- Capacity: 200g, Divisions: 0.01g
- Units: g, dwt, gn, ct
- Power: 2 x AA batteries (included)

This professional digital pocket scale has a high resolution over a wide capacity range, in a case measuring just 120mm long. The weighing platform is stainless steel with a transparent protective cover which also serves as a weighing bowl. LCD touchscreen display with backlight. Two year warranty.

(Prices exclude VAT)

193312 Pesola PPS200 Professional Digital Pocket Scale



\$ € £

\$102 €89 £65.79

Tanita 1230 High Accuracy Digital Pocket Scale

- Capacity: 20g, Divisions: 0.002g
- Units: g, ct, ozt, gn
- Power: 4 x 1.5V AAA LR03 batteries (included)

A precision scale with very high 0.002g resolution.

The Tanita 1230 comes with a separate bowl and 20g calibration weight. It can be used to provide precise weights of small items such as birds eggs. Extra features include a large hinged transparent cover which provides draught protection, programmable auto power-off times, and a sophisticated overload security system.

(Prices exclude VAT)

192518 Tanita 1230 High Accuracy Digital Pocket Scale



\$ € £

\$413 €363 £267.46

Pesola PTS3000 Professional Digital Platform Scale

- Capacity: 3000g, Divisions: 0.1g
- Units: g, oz
- Power: 4 x AAA batteries (included)

A professional quality scale with a robust and compact design. The scale features 3000g capacity at 0.1g resolution including counting function for identical parts. Comfortable and simple operation with four keys and illuminated LCD. Weighing platform: 140 x 140mm. Two year warranty.

(Prices exclude VAT)

176701 Pesola PTS3000 Professional Digital Platform Scale



\$ € £

\$132 €116 £85.79



Pesola MedioLine

Higher capacity, take measurements in any direction.

(Prices exclude VAT) \$ € £

Metric

185606	MedioLine 300g	\$59	€52	£38.29
185607	MedioLine 600g	\$59	€52	£38.29
185608	MedioLine 1000g	\$59	€52	£38.29
193548	MedioLine 2500g	\$61	€54	£39.58

Metric/Imperial

193550	MedioLine 300g/10oz	\$61	€54	£39.58
193551	MedioLine 1000g/2lb	\$61	€54	£39.58

Newton (Pressure)

193552	MedioLine 3N	\$59	€52	£38.29
193553	MedioLine 6N	\$59	€52	£38.29
193554	MedioLine 10N	\$59	€52	£38.29
193549	MedioLine 25N	\$62	€55	£40.42

The 300g MedioLine is recommended for weighing small raptors and large passerines, the 600g for small to medium sized waders, the 1kg for large waders and small ducks and the 2.5kg for large ducks.



Pesola MacroLine

Large capacity, take measurements in any direction.

(Prices exclude VAT) \$ € £

Metric

176689	MacroLine 5kg	\$121	€106	£78.29
176694	MacroLine 10kg	\$123	€108	£79.58
176695	MacroLine 20kg	\$125	€110	£81.25
176696	MacroLine 35kg	\$129	€114	£83.75
176697	MacroLine 50kg	\$151	€133	£97.92

Metric/Imperial

193765	MacroLine 5kg/10lb	\$124	€109	£80.42
193766	MacroLine 10kg/20lb	\$126	€111	£81.66
193767	MacroLine 20kg/40lb	\$129	€113	£83.29
193768	MacroLine 50kg/100lb	\$153	€134	£99.16

Newton (Pressure)

193769	MacroLine 50N	\$109	€96	£70.83
193764	MacroLine 100N	\$81	€72	£52.81
193298	MacroLine 100N with Pressure Set	\$168	€148	£109.16
193770	MacroLine 200N	\$129	€113	£83.29
193771	MacroLine 500N	\$153	€134	£99.16



The 20kg MacroLine is recommended for swans and large geese.



Clip



M3 Bolt



Hook



M8 Eye Bolt

Pesola Spring Balance Accessories

(Prices exclude VAT)

\$ € £

Bird Cone

176699	Micro/MedioLine Bird Cone	\$27	€24	£17.49
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Replacement/Alternative Suspensions

193292	LightLine Clip	\$2	€2	£1.46
193293	Micro/MedioLine Clip	\$3	€3	£1.88
193294	Micro/MedioLine Hook	\$3	€2	£1.66
193291	MedioLine M3 Bolt	\$5	€4	£3.25
193297	MacroLine M8 Eye Bolt	\$17	€15	£10.79

Digital Hanging Scale

• Versatile scales for weighing (Kg) and measuring forces (Newtons)

• 1000kg maximum capacity

A professional quality scale with a compact design and a cast aluminium housing. Ideal for outdoor use, with a "Hold" function to freeze the reading when weighing moving loads. Control diodes indicate the operating state (HOLD = freezed display) (STB = stable) (TARE = tare active) (ZERO = zero adjusted) (N = Unit Newton). Includes remote control, allowing scales to be controlled from a distance of 25m.

(Prices exclude VAT)

181596 Digital Hanging Scale



\$546 €480 £354.17

Pesola Pressure Sets

These pressure sets are designed to be used with a scale to transform it into a pressure dynamometer. The Medio Line Pressure Set includes a pressure rod, handle and tube. The Macro Line Pressure Set includes a pressure rod, four interchangeable fittings, threaded hook, handle and cap-nut to replace standard lower hook.

(Prices exclude VAT)

193289	MedioLine Pressure Set	\$25	€22	£16.52
193295	MacroLine Pressure Set	\$44	€38	£28.29





INSECT NETS

Butterfly nets - are usually made of black material which is very fine and soft, and so minimises damage to delicate wings. Butterfly nets fitted with a white net are used to capture other insects as it is easier to see smaller insects against a white background. A range of designs are available to suit every purpose and budget. These include beginners' nets, net sets comprised of various components which can be purchased separately and used in combination with each other, ultra-lightweight and crushable nets.



Butterfly Net Sets

Construct your own butterfly net by choosing from a range of collecting bags, frames and handles. The four-fold aluminium frames pivot in three places making them easy to fold down with a collecting bag attached. Frames are available with diameters of 35, 40, 50 or 60cm. Nets are made from black or white 28-gauge Terylene material which is resistant to UV deterioration and is very soft against delicate insect wings. Aluminium handles are available in lengths of 30, 60, 90 and 120cm and screw directly into the frame. Extension pieces of 60 and 90cm can be used if further length is required. A telescopic handle is available to fit these frames which measures 60cm and extends to a total length of 1.2m. This Butterfly Net is also available as a complete set in either Standard size (40cm frame and 60cm handle) or Large size (50cm frame and 90cm handle).



Complete Sets

(Prices exclude VAT)

		\$	€	£
193337	Standard Butterfly Net Set: Black	\$48	€42	£30.83
193352	Standard Butterfly Net Set: White	\$48	€42	£30.83
193324	Large Butterfly Net Set: Black	\$55	€49	£35.83
193351	Large Butterfly Net Set: White	\$55	€49	£35.83

Frames

193615	Frame: 35cm	\$17	€15	£10.83
193616	Frame: 40cm	\$18	€16	£11.63
193617	Frame: 50cm	\$22	€19	£14.16
193618	Frame: 60cm	\$24	€21	£15.41



Bags

193609	Net bag: 35cm, Black	\$13	€12	£8.54
193825	Net bag: 35cm, White	\$13	€12	£8.54
193610	Net bag: 40cm, Black	\$16	€14	£10.41
193826	Net bag: 40cm, White	\$16	€14	£10.41
193612	Net bag: 50cm, Black	\$21	€18	£13.33
193827	Net bag: 50cm, White	\$21	€18	£13.33
193829	Net bag: 60cm, Black	\$21	€19	£13.83
193828	Net bag: 60cm, White	\$21	€19	£13.83



Handles

193811	Handle: 30cm	\$13	€11	£8.33
193809	Handle: 60cm	\$15	€13	£9.79
193810	Handle: 90cm	\$17	€15	£11.24
193812	Handle: 120cm	\$18	€16	£11.66
193604	Extension piece: 60cm	\$15	€13	£9.58
193605	Extension piece: 90cm	\$18	€16	£11.66
193626	Telescopic handle	\$26	€23	£16.66



Beginner's Butterfly Net

The beginner's Butterfly Net is ideal for those new to entomology or for the younger naturalist. It features a simple wire frame with a wooden handle. The frame has a diameter of 30cm and the handle measures 30cm in length. The net bag is made from soft black material that is suitable for delicate butterfly wings. It can be easily removed from the frame for washing or replacement. A spare net bag is available to purchase separately.



(Prices exclude VAT)

		\$	€	£
192143	Beginner's butterfly net	\$26	€23	£17.08
192144	Spare net bag	\$14	€12	£9.16

NHBS Butterfly Net

This economical net is ideal for beginners. The bag is made from very soft green mesh which is less likely to damage delicate butterfly wings. The handle is ridged to improve grip and has a bungee clip that can be attached to a belt loop or bag. The bag can be removed for cleaning. Total length 51cm.



(Prices exclude VAT)

		\$	€	£
211388	NHBS Butterfly Net	\$32	€28	£20.79

Economy Butterfly Net

The Economy Butterfly Net Frame has a deep fine mesh net bag that allows for excellent airflow, thus providing a smooth action and minimising damage to delicate specimens. The plastic handle is lightweight making it ideal for use by children. The net has a diameter of 30cm and a bag depth of 72cm. The handle is 76cm long.



(Prices exclude VAT)

		\$	€	£
186955	Economy Butterfly Net	\$15	€14	£9.99



Lightweight Butterfly Net

The Lightweight Butterfly Net has a handle made from black moulded plastic on a black plastic-coated aluminium frame. There is a hook on elastic in the end of the handle allowing you to hang the net in a convenient place such as from a belt or ruck sack. The net is attached by velcro and can be easily removed to wash or replace. Net material is olive green mosquito size mesh. A spare net bag is available to purchase separately.



(Prices exclude VAT) \$ € £
176493 Lightweight Net \$55 €49 £35.83

Standard and Large Butterfly Net

The Standard Butterfly Net has a 37cm diameter frame, a 68cm deep net bag and a 60cm extension handle. The Large Butterfly Net has a 47cm diameter frame, a 78cm deep net bag and a removable 60cm extension handle.

The net bag is constructed from soft Terylene material that will minimise damage to insect wings. Available in both black and white.



(Prices exclude VAT) \$ € £
180588 Standard - Black \$36 €32 £23.32
180589 Standard - White \$36 €32 £23.32
180590 Large - Black \$46 €41 £29.99
180591 Large - White \$46 €41 £29.99

Crushable Pocket Butterfly Net

This Crushable Pocket net has a sprung steel frame which twists up, allowing the 30cm diameter net to be collapsed and folded to a handy pocket size. The net is supplied with a short brass handle for general use; this can quickly be extended by inserting a stick or a piece of wood into the handle. Alternatively, two types of handle are available for use with the net. The Push-Fit Net Handle is 60cm in length and up to four can be connected together. The Telescopic Handle measures 60cm and extends to a total length of 1.2m.



(Prices exclude VAT) \$ € £
177373 Crushable Butterfly Net \$32 €28 £20.42
187145 Push-fit Net Handle \$14 €12 £9.16
187142 Telescopic Net Handle \$39 €34 £24.99

Lightweight Folding Butterfly Net

The Lightweight Folding Butterfly Net can be used with its telescopic handle half extended for close sweeps or fully extended to lengthen your reach to over 1m. The net is highly portable and folds down into its own bag for carrying. It is small enough to fit into a typical rucksack. The frame is robust and is designed to withstand years of field use.



(Prices exclude VAT) \$ € £
180068 Lightweight Folding Net \$75 €66 £48.33



BugDorm Insect Net Sets

BugDorm Insect Net Sets allow you to create your own net from a selection of frames, bags and handles. Net frames are manufactured from stainless steel and are foldable for easy transportation. Choose from a diameter of 30, 38, 46 or 60cm. White net bags are available to fit each size of frame. Bags are made from fine nylon netting with 300µm mesh.

Three types of handle are available for use with these frames. Aluminium handles have a comfortable plastic grip and are sold in three sizes. The two larger sizes are retractable for easier carrying. Fibreglass handles are very robust and are coated with dark, frosted paint which minimises reflections. Two sizes are available and both are comprised of multiple sections which allow the handle to be fully retracted. Carbon fibre handles are available in four sizes, the largest of which extends up to a length of 530cm. Please note that, to use the carbon fibre handle with these frames, the 5/16" to 1/2" connector is required.

Frames

(Prices exclude VAT)	\$	€	£
211904 Frame: 30cm	\$12	€10	£7.46
211905 Frame: 38cm	\$14	€12	£8.75
211906 Frame: 46cm	\$15	€14	£9.99
211907 Frame: 60cm	\$18	€16	£11.88

Bags

211900 Net bag: 30cm, White	\$8	€7	£5.42
211901 Net bag: 38cm, White	\$12	€10	£7.49
211902 Net bag: 46cm, White	\$14	€12	£9.16
211903 Net bag: 60cm, White	\$21	€18	£13.33



Handles

211910 Aluminium handle: 23cm	\$6	€5	£3.75
211911 Aluminium handle: 45–105cm	\$14	€12	£9.16
211912 Aluminium handle: 57.5–160cm	\$18	€16	£11.66
211913 Fibreglass handle: 39–164cm	\$49	€43	£31.66
211914 Fibreglass handle: 39–198cm	\$54	€47	£34.99
211915 Carbon fibre handle: 56–270cm	\$67	€59	£43.33
211916 Carbon fibre handle: 56–360cm	\$78	€69	£50.83
211919 Carbon fibre handle: 61–450cm	\$91	€80	£59.16
211920 Carbon fibre handle: 61–530cm	\$107	€94	£69.17

Frame / Handle Connector

219163 5/16" to 1/2" connector	\$5	€5	£3.33
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SWEEP NETS



BUYERS GUIDE ▶ 2015

INSECT NETS

Sweep nets - are made from material which is thicker and more robust than that of butterfly nets. This makes them much more able to withstand being swept through vegetation. A range of heavy duty sweep nets are also available which are made from much tougher calico material. This makes them ideal for use in coarse vegetation.

POOTERS ▶ PAGE 147



P147 ▶

WHITE PLASTIC TRAYS ▶ PAGE 155



P155 ▶

Beginner's Sweep Net

The Beginner's Sweep Net is ideal for those new to entomology and also for children. It is very affordable and is small and light enough for youngsters to handle. This white net is suitable for collecting insects and bugs in grasses, bracken and other non-coarse vegetation. It has a net diameter of 30cm and the wooden handle is 30cm in length. A replacement bag is also available for this net.

(Prices exclude VAT)

187176 Beginner's sweep net

192142 Replacement net bag



	\$	€	£
187176 Beginner's sweep net	\$30	€26	£19.16
192142 Replacement net bag	\$17	€15	£11.25

Telescopic Folding Sweep Net

The Telescopic Folding Sweep Net is the perfect choice when you're pushed for space. It is lightweight and folds down into a compact size that will easily fit into a suitcase or rucksack, meaning you'll always have it to hand when you need it. The collecting area is 40cm wide and the net extends from 80cm to a total of 100cm. When collapsed the item measures only 47cm in length. Includes sweep net bag, frame and cover.

(Prices exclude VAT)

200613 Telescopic sweep net

	\$	€	£
200613 Telescopic sweep net	\$87	€77	£56.66

Traditional & Heavy Duty Sweep Nets

For collecting invertebrates from grass and vegetation these five-sided lightweight aluminium frames give a better sampling sweep than circular frames. The net bags are made from fine nylon material and have a curved foot to help stop insects escaping.

Available in three sizes with frame diameters of 25cm, 40cm and 50cm and handle lengths of 60cm, 38cm and 30cm for small medium and large sizes respectively. All net bags are 50cm deep and they are available in Traditional (standard thickness) or Heavy Duty. Heavy Duty net bags are made of calico and are particularly suitable for use in coarse vegetation. Frames and net bags are also available to purchase as separate components.

Complete Sets

(Prices exclude VAT)

	\$	€	£
176017 Small - Traditional	\$55	€49	£35.83
193815 Small - Heavy Duty	\$53	€47	£34.58
176018 Medium - Traditional	\$60	€53	£39.16
197641 Medium - Heavy Duty	\$61	€54	£39.58
193325 Large - Traditional	\$80	€71	£52.08
193816 Large - Heavy Duty	\$80	€71	£52.08

Frames

175992 Frame - Small	\$24	€21	£15.42
175993 Frame - Medium	\$27	€24	£17.50
198299 Frame - Large	\$34	€30	£22.08

Bags

175994 Small - Traditional	\$28	€25	£18.33
175997 Small - Heavy Duty	\$30	€26	£19.16
175995 Medium - Traditional	\$33	€29	£21.66
175998 Medium - Heavy Duty	\$33	€29	£21.66
193348 Large - Traditional	\$44	€38	£28.33
198298 Large - Heavy Duty	\$44	€38	£28.33



Medium Sweep Net - Traditional



Large Sweep Net - Heavy Duty

NHBS Sweep Net

This well constructed but economical sweep net is made from tough but soft white mesh and the foot shaped design makes it easier to retain your catch. The bungee clip can be attached to a belt loop or bag and the net bag is attached by velcro, making it easy to remove. Total length 51cm.

(Prices exclude VAT)

211385 NHBS Sweep Net

	\$	€	£
211385 NHBS Sweep Net	\$32	€28	£20.79



Ultra-Lightweight Easy-Sweep Net

This generously sized net can be used to collect samples from shrubs or grassland. The very fine mesh keeps all your collected samples in the net. Ultra-lightweight and comes with a spring loaded hook so that it can be attached to a belt or rucksack. The net is soft enough to also be used for butterflies (with care) and the bag can be easily detached for washing or replacement. A spare net bag is available to purchase separately.

(Prices exclude VAT)

175990 Ultra-Lightweight Easy-Sweep Net

	\$	€	£
175990 Ultra-Lightweight Easy-Sweep Net	\$51	€45	£33.33

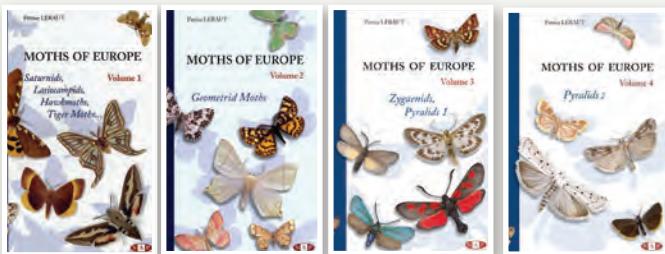
176492 Replacement net bag

	\$	€	£
176492 Replacement net bag	\$28	€24	£17.92



Moths of Europe

Patrice Leraut (2006–2014)



The Moths of Europe series of identification volumes include colour photos, detailed descriptions of males and females, variations, host plants and habitat, flight time, status and distribution maps. The four current volumes cover the following groups: Volume 1: Saturnids, Lasiocampids, Hawkmoths and Tiger moths; Volume 2: Geometrid moths; Volume 3: Zygaenids and Pyralids 1 and Volume 4: Pyralids 2.

161382	Volume 1 (HBK)	\$93	€81	£59.99
164403	Volume 2 (HBK)	\$123	€108	£79.99
164404	Volume 3 (HBK)	\$123	€108	£79.99
170345	Volume 4 (HBK)	\$116	€102	£74.99

Britain's Butterflies: A Field Guide to the Butterflies of Britain and IrelandDavid Newland *et al.* (2015)

A comprehensive photoguide to the butterflies of Britain and Ireland, covering all 59 breeding species as well as regular migrants. Colour plates depict typical views of each butterfly, as well as their egg, caterpillar and crysalis.

221077	PBK	\$23	€20	£14.99
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**The Butterflies of Britain and Ireland**

Jeremy A Thomas and Richard Lewington (2014)

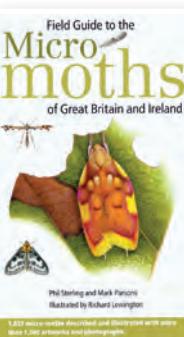
This newly revised field guide provides comprehensive coverage of all our resident and migratory butterflies, including the latest information on newly discovered species such as the cryptic wood white and the geranium bronze. Fully updated distribution maps are provided.

214436	PBK	\$29	€26	£18.95
214435	HBK	\$54	€47	£34.99

**Field Guide to the Micro-Moths of Great Britain and Ireland**Phil Sterling *et al.* (2012)

Containing more than 1400 detailed artworks and photographs and around 900 specially commissioned maps, this ground breaking book makes this fascinating and important group of insects accessible to the amateur naturalist. Also contains tips for finding micro-moths and a series of helpful keys.

197196	PBK	\$46	€41	£29.95
197197	HBK	\$69	€61	£44.99

**Britain's Day-Flying Moths: A Field Guide to the Day-Flying Moths of Britain and Ireland**David E Newland *et al.* (2013)

A concise photographic field guide which will help you identify any of the 155 day-flying moths found in Britain and Ireland. Each species is covered individually and the additional introductory text covers classification, life cycle and behaviour, ecological importance and the impact of climate change.

203575	PBK	\$28	€24	£17.95
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**Collins Butterfly Guide**

Tom Tolman and Richard Lewington (2009)



This classic guide to the butterflies of Britain and northern Europe describes and illustrates all 440 species, depicting both males and females and, where there is variation, subspecies. Distribution maps accompany every widespread species and text covers taxonomic nomenclature, distributions, flight periods, variations, habitats, behaviour, life cycles and conservation. An ideal field guide for butterfly enthusiasts and naturalists alike.

173624	PBK	\$29	€26	£18.99
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Field Guide to the Moths of Great Britain and IrelandPaul Waring *et al.* (2009)

This is the first field guide to illustrate and describe all the British and Irish macro-moths, showing each species in its natural resting posture. Contains more than 1700 exquisitely detailed artworks of over 880 species with complete descriptions and distribution information.

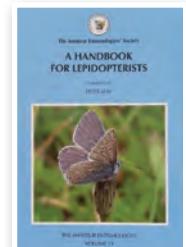
180152	PBK	\$46	€41	£29.95
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A Handbook for Lepidopterists

Peter May (2014)

This useful handbook contains a huge amount of information for the amateur lepidopterist. Includes sections on field equipment and methods, breeding, conservation, preparation and housing of collections as well as identification, recording and photography.

215877	HBK	\$39	€34	£24.99
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**Woodland Management for Butterflies and Moths: A Best Practice Guide**Susan A Clarke *et al.* (2011)

Woodland Management for Butterflies and Moths is intended for anyone involved in the management of woodland. It provides guidance on the woodland habitat features needed by butterflies and moths and how to create, maintain and improve them. Fifteen butterfly and moth species identified as scarce are given species accounts with distribution maps and details about habitats important to them are discussed.

190996	PBK	\$15	€14	£9.99
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CHOOSING A MOTH TRAP

Which is best for garden or educational use?

The design of the Skinner trap means you can access the catch without having to switch the bulb off - very useful if you are looking at your catch over the course of an evening. An actinic bulb is easier on the eye than the very bright MV (mercury vapour) bulb so it's more suitable for a public setting.

Actinic vs. Mercury Vapour

Mercury vapour bulbs will attract the largest catch of moths. However, they are also very bright. If using the trap in a small back garden or close to a road, you may want to opt for actinic electrics.

Mercury vapour bulbs run hot and so need to be protected from the rain to avoid shattering. All our mercury vapour Robinson traps come with a rain guard as standard. Actinic bulbs do not run hot and so do not need protecting from the rain.

Which is best for unattended trapping?

The Robinson is the only trap which will retain the whole catch after dawn. Some moths will escape from other traps.

Which is best for portability?

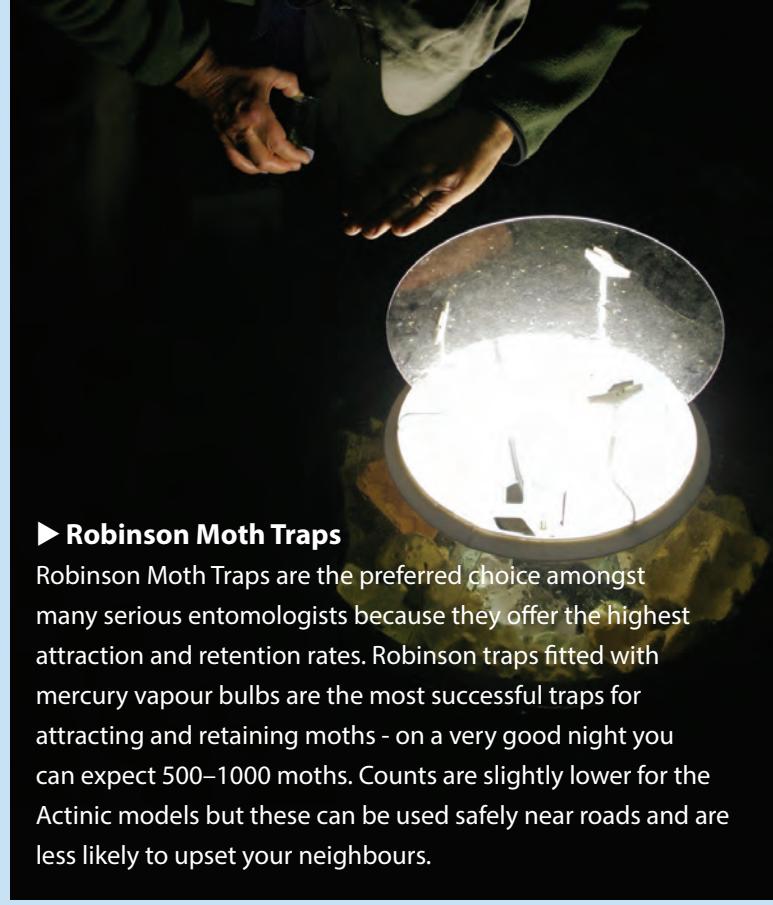
Heath traps are easily transported and good for remote sites or trapping over a number of nights in different locations.

What's the difference in catch rates?

Traps with MV bulbs attract the largest number of moths. Of the actinic traps the Skinner has the best catch rates. Heath traps catch 40–50% fewer moths but because all traps attract the same range of species you can obtain similar results trapping for a longer period or over several nights in the same area.

Do different traps attract different species?

No, all traps attract the same range of species.



► Robinson Moth Traps

Robinson Moth Traps are the preferred choice amongst many serious entomologists because they offer the highest attraction and retention rates. Robinson traps fitted with mercury vapour bulbs are the most successful traps for attracting and retaining moths - on a very good night you can expect 500–1000 moths. Counts are slightly lower for the Actinic models but these can be used safely near roads and are less likely to upset your neighbours.


Heavy Duty 125W MV Robinson Moth Trap

This Robinson Moth Trap is designed for prolonged use and has a thick clear plastic collar, a robust base and cone. The base has a soak away. The trap comes complete with 240V mains electrics and a mercury vapour bulb and can be run from either a mains supply or generator. A sturdy rain guard is provided for use in inclement weather and the electrics come fully wired with a mains plug and five metres of cable leading to an IP56 waterproof box. The box houses an integrated choke and capacitor.

(Prices exclude VAT) \$ 562 € 494 £ 364.16


NHBS 125W MV Robinson Moth Trap

The NHBS Robinson Trap has a 500mm diameter base with small holes to provide drainage. The collar is made from 3mm UV stable black plastic and cannot be removed from the base. It has a white cone with three flight interception baffles and a sturdy rain guard which screws on tightly for rigidity. The 125W mercury vapour bulb is powered by mains or generator.

(Prices exclude VAT) \$ 411 € 362 £ 266.66


Twin 30W Actinic Robinson Moth Trap

This moth trap follows the same design as the Heavy Duty MV moth trap but has two 30W actinic bulbs which run off a mains supply or generator. It measures 450mm in diameter and is 300mm deep. The actinic bulbs make this trap much more suitable for public or urban trapping.

(Prices exclude VAT) \$ 546 € 480 £ 354.16



Actinic Skinner Moth Trap

•Best trap for garden or educational use

A well built top constructed of treated exterior plywood. Easily assembled with clear plastic sliding top panels that allow access to the catch whilst the bulb is still on. The trap also folds flat which makes it very easy to transport and store. Available as a 240V version which can be powered by the mains or as a 12V version which will require a battery (not included). All traps come with a 15W actinic bulb. When assembled, the trap measures 45 x 45 x 35cm high.

(Prices exclude VAT)	\$	€	£
193331 240V Actinic Skinner	\$206	€181	£133.32
193343 12V Actinic Skinner	\$270	€237	£174.99

SKINNER MOTH TRAPS

Skinner Moth Traps will attract a similar number of moths to Robinson traps, however, they are less efficient at holding the catch. The main advantages of Skinner traps are price and portability. They collapse down quickly and easily when not in use making them very easy to store and transport. Skinner traps are available with either actinic or mercury vapour electrics and actinic versions can be provided with either 240V (mains powered) or 12V (battery powered) control boxes.



Folding Actinic Skinner Moth Trap 240V

•Fits into robust carrying case

This Skinner moth trap has a unique folding design with the additional benefits of Heath trap type moth deflector vanes. Every component fits snugly into the carry case, which also performs as a base to hold the trap during operation. The design allows for maximum portability and easy storage. When assembled the trap measures 40.5cm long x 30.5cm wide x 30.5cm high.

This trap is available with either a 22W circular actinic bulb, a 40W straight actinic bulb, twin 20W compact fluorescent bulbs or a 125W mercury vapour bulb. All traps are powered by the mains (240V) and come with a 4m cable.

(Prices exclude VAT)	\$	€	£
220983 22W Circular Actinic	\$243	€214	£157.50
220982 40W Straight Actinic	\$230	€202	£149.17
220985 Twin 20W	\$219	€192	£141.67
192532 125W Mercury Vapour	\$321	€282	£208.32



MV Skinner Moth Trap 240V

•BESTSELLER

•Best catch rates, mercury vapour bulb

A robust, well built trap constructed of treated exterior plywood. Easily assembled it runs from the mains or a 240V generator. Folds flat for easy storage or transportation. Measures 45cm square x 35cm high when assembled and comes with five metres of input cable and a 125W mercury vapour bulb.

Clear plastic sliding top panels allow access to the catch without having to switch the bulb off. As mercury vapour bulbs have to cool before they can be switched on again, this is a very useful feature. A bulb guard and rain guard are also available for this model.

(Prices exclude VAT)	\$	€	£
193329 MV Skinner 240V	\$239	€210	£154.99
193336 Rainguard	\$42	€37	£27.08
193341 Bulb Guard	\$46	€41	£29.99

SAFARI AND RANGER MOTH TRAPS

Safari and Ranger Moth Traps are designed for use in the field as they are extremely light and pack down to a very portable size and shape. They are also very economical in comparison to the larger rigid traps, which makes them a great choice for the beginner. Traps can be hung from a tree or tethered to the ground using tent pegs (not included).

Please note: In some tropical locations, biting insects might damage the lightweight netting used on these traps.

Safari Moth Trap

This superlight trap is designed for overseas travel but also offers a very affordable introduction to moth trapping for beginners. Made of lightweight fine mesh and supported by metal rods, this highly portable trap folds flat for travel and storage.

The complete trap kit comes with a trap, mains powered electrics and compact actinic bulb. The trap can also be purchased without electrics.

When assembled the trap measures 370mm diameter x 250mm high.

(Prices exclude VAT)	\$	€	£
175308 Moth Trap Kit	\$148	€130	£95.79
196710 Trap Only	\$57	€50	£36.66



Ranger Capio Moth Trap

The Ranger Capio Moth Trap is made of lightweight, fine mesh supported by metal rods. The trap folds down flat and packs into a handy carry bag for travel and storage. Entry into the trap is via an "n" shaped zip which allows you to access the catch whilst the bulb is still lit.

The trap comes with mains powered electrics and either a 160W Mercury Blended Tungsten (MBT) bulb or a 20W Compact Actinic bulb. With MBT traps an additional UV resistant rainshield is also provided to protect the bulb in conditions of inclement weather. When assembled, the trap measures 410mm square x 350mm high.

(Prices exclude VAT)	\$	€	£
199055 Ranger Capio: MBT Electrics	\$231	€203	£150.00
185613 Ranger Capio: Actinic Electrics	\$219	€192	£141.67



The traditional **Heath Trap** has a small actinic tube mounted vertically within three vanes that deflect moths downwards into the holding chamber below. The traps are very lightweight and portable and are usually powered by a 12V battery or generator, although mains powered traps are also available. Two of the traps shown here can be used with either a battery or a mains

adapter making them even more versatile. Variations on the Heath Trap design include the 'Plastic Bucket' model which allows the trap to be carried conveniently and packed away. Although catches from Heath Traps are less than for Robinson's and Skinner's their affordability and portability makes them great choices for beginners or for use in the field.



6W Plastic Bucket Heath Moth Trap

A small, portable trap particularly suited to trapping at remote sites. The light source is a 6W actinic tube which is supplied with the trap. The plastic bucket measures 330mm diameter x 340mm high and has a drainage hole in the base. It comes with a funnel, ballast unit, vanes and actinic tube. When not in use the parts can be carried within the bucket. Please note: A 12V battery is required to run this trap. Alternatively, a mains adapter can also be used which allows the trap to be run on mains power.

(Prices exclude VAT)	\$	€	£
193326 Plastic Bucket Trap	\$174	€153	£112.49
193327 Replacement 6W Bulb	\$22	€20	£14.58
193328 Mains Adapter	\$96	€85	£62.49



BESTSELLER

15W Heath Moth Trap 12V

This 15W Heath Trap is made from durable lightweight polypropylene. It is easily assembled and can be disassembled to a compact size for storage and transportation. This is a small, portable trap particularly suited to trapping at remote sites as it is light and runs from a 12V battery. The light source is a 15W actinic bulb (included). When assembled the trap measures 270mm width x 270mm depth x 670mm height. Please note: A battery is not included with this trap.

(Prices exclude VAT)	\$	€	£
193353 15W Heath Moth Trap 12V	\$302	€266	£195.83
197585 Replacement 15W Bulb	\$20	€18	£12.91



15W Heath Moth Trap 240V

This small, lightweight moth trap is suited to trapping in the garden or anywhere near a mains supply. It is made from durable lightweight polypropylene. Easily assembled it can be disassembled to a compact size for storage. This is a 240V trap and so requires a mains power supply or generator. Full electrics, mains plug and 15W actinic bulb are included. When assembled the trap measures 270mm width x 270mm depth x 670mm height.

(Prices exclude VAT)	\$	€	£
193354 15W Heath Moth Trap 240V	\$238	€209	£154.16
197585 Replacement 15W Bulb	\$20	€18	£12.91



Moth Trap Electrics and Accessories

Traps and electrics can also be purchased separately along with replacement bulbs and batteries.

(Prices exclude VAT)	\$	€	£
193350 Skinner Trap (no electrics)	\$96	€85	£62.50
193349 15W Actinic Electrics 240V	\$80	€70	£51.66
197692 15W Actinic Electrics 12V	\$161	€141	£104.16
197582 125W MV Electrics 240V	\$122	€107	£79.16
212932 8W Actinic Electrics 12V	\$45	€40	£29.16
176572 15W Actinic Bulb	\$19	€17	£12.49
198641 125W Mercury Vapour Bulb	\$15	€14	£9.99
193342 12V 18Ah Battery	\$55	€49	£35.83
193441 Battery Charger	\$46	€41	£29.99



SHX1000 Generator

The SHX1000 is a compact, low noise generator with inverter technology making it ideal for powering equipment such as moth traps. The generator has both a 230 volt and 12 volt DC output, both with overload protection. With a 3.8 litre fuel tank the SHX1000 can run for over five hours on full load.

(Prices exclude VAT)	\$	€	£
222300 SHX1000 Generator	\$1,106	€972	£716.67



Moth Collecting Tent

This Moth Collecting Tent is quick and easy to assemble and packs down into a convenient size. It is ideal for use with groups because any moths attracted to the sheet can easily be viewed. When set up with the included 8W UV light it can be run from a 12V battery (not included) and is an excellent way to survey for nocturnal insects. The tent comes with pegs that can be used to secure it to the ground, as well as four guy ropes that can be used in windy weather. A protective cover is also provided to protect the UV lamp from light rain. We do not, however, recommend using this tent in very wet conditions. Dimensions: 160 x 160 x 180cm.

(Prices exclude VAT)	\$	€	£
212933 Moth Collecting Tent	\$256	€225	£165.83



BUYERS GUIDE ▶ 2015

Malaise traps are designed for collecting large numbers of wasps (Hymenoptera) and flies (Diptera). They will also catch any other insects that fly upwards into the collecting bottle when they hit the trap. Other insects, including most beetles, fall to the ground when they hit the trap and can be collected using trays placed on the ground at the base of the trap. Malaise traps should be set up at

right angles to an insect flight line, tracks and clearings within forests are great although they also work well out in the open. Malaise traps should not be left out for longer than is necessary and as much of the catch as possible should be used for research or recording purposes.

**Economy Malaise Trap**

This economical Malaise Trap is designed for suspension from trees or other objects using the guy lines provided, whilst the bottom of the trap can be pegged to the ground.

A collecting bottle is provided with this trap but fixing pegs must be supplied by the user. It is available in black and white or all white. Dimensions: Height 120cm x Width 100cm x Length 150cm

(Prices exclude VAT)	\$	€	£
212315 Black and White Trap	\$78	€69	£50.79
212407 White Trap	\$78	€69	£50.79

**BugDorm Malaise Trap**

This Malaise Trap is manufactured from fine mesh black polyester fabric which will trap even minute insects such as parasitic wasps. It has an interception area measuring 165 x 110cm and a 500ml collecting bottle. This trap will require two support poles (measuring 190cm and 110cm), guy ropes and tent pegs.

(Prices exclude VAT)	\$	€	£
211892 BugDorm Malaise Trap	\$141	€124	£91.67

**Trays**

These white polypropylene trays can be placed beneath traps and filled with preservative to catch flying insects which drop when hitting a barrier. Small 35 x 25cm, large 42 x 31cm.

(Prices exclude VAT)	\$	€	£
175967 Small White Tray	\$5	€4	£2.92
193213 Small White Tray x 3	\$13	€11	£8.33
175968 Large White Tray	\$6	€5	£3.75
193214 Large White Tray x 3	\$17	€15	£10.83

**BugDorm Slam Traps**

The Slam Trap works on the same principal as the Malaise Trap but is much easier to assemble and requires less space. Several traps can be suspended in a chain within a forest canopy to sample insects at different heights. The trap consists of a framework of shock-corded poles to which a netting trap clips. Four cross baffles mean that wind direction and sunlight exposure are much less important when positioning this trap. A collecting bottle at the apex of the trap collects insects that migrate upwards. A bottom collector (sold separately) can be tied underneath the trap to collect insects that drop when they hit the trap. Available with either one or four collecting heads. The four headed version allows you to study migration patterns. Each collecting head opens from one of the four quadrants defined by the trap's cross baffle.

(Prices exclude VAT)

	\$	€	£
211894 Slam Trap: Single Head (110cm x 110cm x 110cm)	\$238	€209	£154.17
216583 Slam Trap: Single Headed (156cm x 156cm x 170cm)	\$280	€246	£181.67
211896 Slam Trap: Four Headed (156cm x 156cm x 170cm)	\$379	€333	£245.83
211897 Bottom Collector (100cm x 100cm x 100cm)	\$105	€93	£68.33

BugDorm ez-Malaise & ez-Migration Traps

The ez-Traps are extremely quick and easy to assemble. They have a framework of shock-corded poles to which the net can be easily clipped. The ez-Malaise Trap has an interception area of 165 x 110cm and a 500ml collecting bottle. The ez-Migration Trap has two 180 x 110cm collection areas each with their own collecting bottle so that flight direction can be determined.

Traps are supplied with poles, guy ropes, tent pegs, a carrying bag and spare collecting bottles.

(Prices exclude VAT)

	\$	€	£
211893 ez-Malaise Trap	\$256	€225	£165.83
216314 ez-Migration Trap	\$276	€243	£179.17



Above : BugDorm ez-Migration Trap



Right : BugDorm ez-Malaise Trap

Heavy Duty Trays

Heavy duty trays for fieldwork and general laboratory use. Very solid and can be sterilised. Small 43.5 x 28.5cm, medium 48.5 x 33.5cm, large 54.0 x 38.5cm, all 8cm deep.



(Prices exclude VAT)

	\$	€	£
175970 Small Heavy Duty Tray	\$9	€8	£5.82
175971 Medium Heavy Duty Tray	\$13	€11	£8.33
175973 Large Heavy Duty Tray	\$17	€15	£10.83

Flight Interception Net

The Flight Interception Net is a flat net, bound on all edges. It is made of black Terylene with loops for fixing to support rods. Flying insects, particularly beetles, drop into collecting trays, placed beneath the net (sold separately) upon hitting the net. Available in two sizes.

(Prices exclude VAT)

	\$	€	£
193814 Small - 1.2m x 0.5m	\$27	€24	£17.49
193813 Large - 2.4m x 1m	\$33	€29	£21.24

EMERGENCE TRAPS

BUYERS GUIDE ▶ 2015

Emergence traps can be used to collect adult insects as they emerge from the substrate within which they pupated. Soil Emergence traps collect adult insects emerging from either a small soil sample or from a sample area. The Owen Emergence Trap provides a completely enclosed environment within which samples of timber, flood debris, leaf litter and other material can be placed for long periods to allow any eggs or larvae to develop into adults.

**Heavy Duty Soil Emergence Trap**

The Heavy Duty Soil Emergence Trap is designed to be structurally very strong for longer deployments. It covers an area of approximately 1m square and consists of a floorless closed black and white tent which fits onto a frame made from two shock-corded poles. Two large dome-shaped zipped openings allow for easy access. Loops at each corner are for fixing the trap to the ground in windy weather (tent pegs included). A 500ml collecting bottle is situated at the apex of the trap and two replacement bottles as well as a carrying bag are provided.

(Prices exclude VAT)

211899 Heavy Emergence Trap

\$	€	£
\$185	€162	£119.58

Insect/Mosquito Breeder

This Insect Breeder consists of a bottom container into which the water sample containing the larvae is placed.



Emerging adults will fly upwards through the funnel into the top chamber from where they can be collected. A nylon screen allows ventilation and an additional cap is provided for the small hole in the top container to prevent adults escaping prior to collection. Available singly or in packs of six.

(Prices exclude VAT)

211213 Single	\$9	€8	£5.79
211219 Pack of Six	\$51	€45	£33.29

Litter Sieve

This litter sieve has a diameter of 28cm and is available with different sized mesh. It also comes with a 1m x 1m piece of white fabric and a black sifting bag. Ideal for sorting litter samples, before placing them in a Berlese Funnel.



(Prices exclude VAT)	\$	€	£
212423 4mm mesh	\$62	€54	£39.99
212424 6mm mesh	\$60	€53	£38.75
212425 8mm mesh	\$58	€51	£37.49
212426 10mm mesh	\$57	€50	£36.66

Mini Soil Emergence Trap

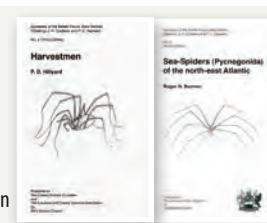
The Mini Soil Emergence Trap can be used to rear adults from larvae present in soil samples. Emerging adults will fly upwards through this funnel into the top chamber from where they can be collected. A nylon screen allows good ventilation and an additional cap is provided to prevent adults escaping prior to collection. Available singly or in packs of six.

(Prices exclude VAT)

211220 Single	\$15	€14	£9.96
211221 Pack of Six	\$81	€71	£52.46

**Synopses of British Fauna**

Suitable for more experienced users, these are a series of invaluable identification works which bridge the gap between the popular guides and specialised monographs. Each volume presents a more detailed account of a group of animals than is found in most field guides, and is illustrated with diagrams and figures.



For the full range see
P153 ▶

**Owen Emergence Trap**

The Owen Emergence Trap provides a completely enclosed environment into which old timber, flood debris, woodland floor leaf mould, old grass cuttings, etc, can be placed, and the emerging insects collected for weeks ahead. The trap comes with ten pegs, guy cord, collecting head and spare plastic collecting bottle. Please note: The trap also requires a strong support stick approx. 1m long (not included).

(Prices exclude VAT)

193338 Owen Emergence Trap	\$177	€156	£114.99
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**INSECT BOXES / LENSES & MAGNIFIERS ▶**

P158 ▶



P126 ▶



Pop up Berlese Funnel

BUYERS GUIDE ▶ 2015

Berlese funnels are used for collecting small insects and other arthropods from soil or litter samples. Litter or detritus is collected from the forest floor and can then be sieved to exclude unsuitably large pieces of wood (these can be processed in an Owen Emergence Trap - page 140). Most soil/litter invertebrates are negatively phototoxic (i.e. they tend to move away from light) and prefer humid conditions. Consequently, as the exposed soil or litter at the top of the trap dries they tend to move downwards, eventually dropping into the collecting bottle at the bottom of the trap.

Pop-up Berlese Funnel

The Pop-up Berlese Funnel is an excellent alternative to more traditional designs and is particularly useful for use at remote sites. It consists of a black nylon funnel which is held open by a foldable metal ring. Inside the funnel is a black polyester mesh gauze (6mm mesh) onto which the soil/leaf litter is placed. The top of the Berlese Funnel is made from white nylon netting which permits light to enter and moisture to evaporate. At the base of the funnel is a 50ml collecting tube. Unfolded dimensions: diameter 38cm, height 90cm. Folded dimensions: diameter 16cm, height 8cm.

(Prices exclude VAT) \$ € £

211260	Pop-up Berlese Funnel	\$42	€37	£27.50
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**Tray-type Berlese Funnel**

The Tray-type Berlese Funnel consists of a black nylon funnel into which fits a plastic tray. This tray is fitted with a plastic filter and three filters with different mesh sizes are provided. The top compartment is made from white nylon netting which allows moisture from the sample to evaporate. At the base of the funnel is a tube connector which enables the 50ml eppendorf collecting tube to be easily attached and removed. This Berlese Funnel is designed to be hung for use (string not provided). Available with a 30cm or 44cm diameter funnel.

(Prices exclude VAT) \$ € £

211258	30cm diameter	\$51	€45	£33.33
211259	44cm diameter	\$90	€79	£58.33

**Standard Berlese Funnel**

The Standard Berlese Funnel is made from PE plastic and is housed in an aluminium framework. It uses a 50ml eppendorf tube as the collecting container at the bottom of the funnel. The sample soil or leaf litter is placed on a 30cm diameter plastic mesh tray which sits inside the funnel. A fine mesh lid prevents insects from escaping or from entering the sample litter. The funnel is designed so that it can also be hung by strings if required (strings not included). An external light source (not included) can also be used to accelerate the extraction process. Housing dimensions: length 365mm x width 365mm x height 520mm. Funnel dimensions: diameter 340mm x height 350mm. Weight (including frame): 1.55kg.

(Prices exclude VAT) \$ € £

211231	Single	\$84	€73	£54.17
211230	Pack of 6	\$496	€436	£321.67

**Berlese Funnel with Lamp**

This Berlese Funnel consists of a white plastic bucket containing a mesh insert onto which is placed the soil or leaf litter sample. The lid contains a lamp which, when switched on, will cause the insects and other arthropods in the sample to move downwards where they will fall through the wire mesh through the funnel below and into the container. This berlese funnel requires a mains power source.

(Prices exclude VAT) \$ € £

199540	Berlese Funnel	\$243	€214	£157.49
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**Bait Traps**

These insect bait traps have holes in tabs on the side of the container to allow a string to be attached so that the trap can be hung (string not included). To attract beetles this trap can be baited with ripe banana, or sugar water for wasps. Available with nylon or wire mesh lids.

**Nylon Screen**

(Prices exclude VAT) \$ € £

211224	Single	\$5	€4	£3.29
211223	Pack of 6	\$28	€25	£18.29
211222	Pack of 12	\$56	€49	£36.25

Wire Screen

(Prices exclude VAT) \$ € £

211227	Single	\$8	€7	£4.96
211226	Pack of 6	\$45	€40	£29.13
211225	Pack of 12	\$89	€78	£57.46

Pop-up Butterfly Bait Trap

These butterfly bait traps consist of a cylinder of polyester netting which is held open by a ring at the top and bottom. The cylinder has a 2-way full length side zip which can be used for the removal of butterflies.

A bait tray is suspended beneath the trap via three adjustable drawstrings. The trap is also available with an internal white cone with 10cm diameter opening which helps prevent butterflies from escaping after they have been trapped.

The Standard Bait Trap measures 30cm in diameter and is 70cm high when suspended. The Bait Trap with Inner Cone is 38cm in diameter and 100cm high. The trap with inner cone also comes with a nylon carrying bag.

(Prices exclude VAT) \$ € £

196286	Standard Bait Trap	\$60	€53	£39.16
211228	Bait Trap with Inner Cone	\$43	€38	£27.92



BIOGENTS MOSQUITO TRAPS

Biogents mosquito traps are the result of over 16 years of research into mosquitos and their behaviour. This has allowed Biogents to develop a range of highly effective traps. The efficiency of these traps has been proven scientifically and they are the choice of researchers worldwide, used to monitor species such as the yellow fever (or dengue) mosquito (*Aedes aegypti*). The traps can be deployed using a range of attractants including scent lures, CO₂ and UV light depending on target species.

The BG-Sentinel Mosquito Trap works by emulating both human scent and the convection currents that move air around a human body to attract mosquitoes. The trap uses a tried and tested chemical lure with an internal fan to distribute the air. Additional attractants such as worn clothing, animal hair, food and light can also be placed in the trap, making it a very versatile tool. The trap is a collapsible, white fabric container with white gauze covering the opening. In the middle of the gauze cover, air is sucked into the trap through a black catch pipe by an electrical fan, drawing approaching mosquitoes



BG-Sentinel Mosquito Trap - Full Version

The full version of the BG-Sentinel Trap includes the pop-up Sentinel trap, three support rods, intake funnel, funnel net, two catch bags, ventilator (12V DC 3.6W), mains power adapter with 8m cable and EU plug, 12V battery power adapter, white gauze trap cover, compact carrying bag and one sachet of Sweetscent mosquito attractant. The trap can be powered either from the mains or from a 12V battery (adapters for each option are supplied, battery is not included). If using a battery then a capacity of 11Ah will be required for every 24 hours of deployment. When assembled the trap measures 36cm in diameter and 40cm in height. Used with the Sweetscent provided, this trap is ideal for capturing tiger mosquitoes. It can also be converted to a trap for catching biting midges with the addition of a UV light set (see page 143). Additional sachets of Sweetscent and cartridges of BG-Lure are available to purchase separately.

(Prices exclude VAT)

	\$	€	£
218110 Full Version	\$180	€158	£116.67
218232 DC extension cable	\$18	€16	£11.66
218216 Mains power adapter	\$22	€19	£14.16

BG-Sweetscent Mosquito Attractant

The Biogents BG-Sweetscent Mosquito Attractant is an artificial scent that has been carefully blended to replicate the balance of components in human skin scent. BG-Sweetscent mixes ammonia, lactic acid and caproic acid in quantities that provide an excellent emission profile that is particularly attractive to tiger mosquitoes (disease vectors for pathogens such as Yellow fever virus and dengue fever) and is effective without an additional carbon dioxide lure. Biogents BG-Sweetscent comes in waterproof sachets that have a membrane across which the vapours diffuse and will provide a controlled release of the attractant for two months. The sachets do not need to be opened to use them and the attractant remains protected from rain, humidity and light inside.

(Prices exclude VAT)

	\$	€	£
218244 BG-Sweetscent Attractant	\$17	€15	£10.83

BUYERS GUIDE ▶ 2015

into the catch bag. Unlike in other monitor traps, the catch bag is located above the fan, meaning that the catch can be controlled easily and the captured mosquitoes remain intact and well preserved for analyses.

This trap is suitable for attracting the following species without the addition of CO₂:

- *Aedes aegypti*, *Aedes albopictus*, and *Aedes polynesiensis*
- *Culex quinquefasciatus* and various other *Culex* species from the *Culex pipiens* complex
- The trap is available as available in three variants; Basic, Full Version and Midge Trap.



BG-Sentinel Mosquito Trap - Basic Version

The Basic Version of this trap includes the trap, three support rods, intake funnel, funnel net, two catch bags, ventilator fan, white gauze trap cover and a compact carrying bag. This kit does not include electrics to power the ventilator fan, these need to be purchased separately. The fan requires a 12V DC power source and can run via mains or a 12V battery, the battery will require a capacity of 11Ah for every 24 hours of deployment. This version does not include any of the Biogents lures.



(Prices exclude VAT)

	\$	€	£
218102 Basic Version	\$135	€119	£87.50
218232 20m Extension Cable	\$18	€16	£11.66
218216 8m Mains Power Adapter	\$22	€19	£14.16
218212 Battery Power Cable	\$11	€10	£7.08

BG-Sentinel Midge Trap

The Midge Trap includes all items provided with the Full Version, in addition to this it also includes a UV lamp with voltage convertor, Y-shaped power cable to connect lamp and ventilator to mains or battery, clip to attach lamp, string to hang the trap, beaker catch bag, two beakers to use with alcohol or other preservatives and a 5mm mesh guard to exclude larger insects from the catch pipe. Suitable for catching biting midges (*Ceratopogonidae*).



(Prices exclude VAT)

	\$	€	£
218168 Midge Trap	\$219	€192	£141.67
218232 20m Extension Cable	\$18	€16	£11.66

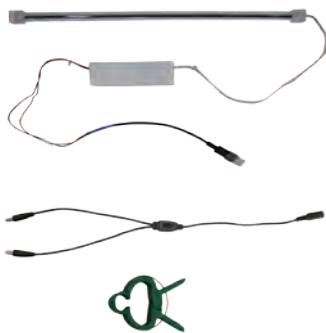
BG-Lure Mosquito Attractant

The Biogents BG-Lure Mosquito Attractant is an artificial scent that has been carefully blended to replicate the balance of components in human skin scent. The BG-Lure mixes ammonia, lactic acid and caproic acid in quantities that provide an excellent emission profile that is particularly attractive to tiger mosquitoes (disease vectors for pathogens such as Yellow fever virus and dengue fever) and is effective without an additional carbon dioxide lure. The Biogents BG-Lure comes in a granular form in a plastic cartridge that releases a controlled amount of each of the attractants with a consistent emission rate to maintain performance over five months. The cartridge has a plastic cover that protects the contents from washing out as a result of rain and avoids the need to handle the contents.



(Prices exclude VAT)

	\$	€	£
218286 BG-Lure Attractant	\$26	€23	£16.67



BG-Sentinel UV Light Set



BG-Sentinel UV Light Set for Midges

BG-Sentinel UV Light Set

This set allows the BG-Sentinel to be converted into a trap for insects that are attracted to UV light. The UV lamp requires a 12V DC current and can be attached to the power source for the ventilator fan (either the mains power adapter or the battery power cable) using the Y-shaped power cord. The set also includes a clip for mounting the lamp and a string for hanging the trap. The ventilator and the lamp together use 8W of the power supply. The Light Set for Midges also includes a 5mm mesh cover to exclude larger insects from the catch pipe, a beaker catch bag and two plastic beakers.

(Prices exclude VAT)

	\$	€	£
218210 BG-Sentinel UV Light Set	\$29	€25	£18.75
218211 BG-Sentinel UV Light Set for Midges	\$37	€33	£24.16

Mosquito nets & repellents.
See page 202

**BugDorm-1 Insect Rearing Cage**

The BugDorm-1 Insect Rearing Cage has a modular design which means that it can be completely disassembled for easy cleaning, storage and part replacement. The cage is lightweight and sturdy and allows access through the 15cm sleeve opening. Side panels are made from polyethylene mesh which has excellent transparency. The top, front and floor are made from clear plastic. When disassembled the cage will pack into a box measuring just 31 x 31 x 9cm. Also available with a removable port in the top panel. Dimensions: 30 x 30 x 30cm.

(Prices exclude VAT)

	\$	€	£
211261 BugDorm-1	\$51	€45	£33.29
211283 BugDorm-1 with Removable Port	\$59	€52	£38.29

BugDorm-4D Insect Rearing Cage

The BugDorm-4D Insect Rearing Cage consists of fibreglass poles which connect together to form a frame. A polyester/nylon and plastic cage threads onto the frame to create a secure environment which can be used to breed and maintain insects. A large zipped door allows the addition and removal of large objects such as plants and two elasticated sleeves can be used to access the interior with minimum risk of insect escape. In the smallest model, sleeves are located on the sides of the cage. In the larger versions, sleeves are located on the front panel. Front and top panels are made from clear vinyl for observation while you work. Side and rear panels are made from either polyester (680µm) or fine nylon (160µm) mesh.

(Prices exclude VAT)

	\$	€	£
219954 32.5 x 32.5 x 32.5cm, Polyester mesh	\$36	€32	£23.33
219953 47.5 x 47.5 x 47.5cm, Polyester mesh	\$57	€50	£36.66
211876 47.5 x 47.5 x 93cm, Polyester mesh	\$64	€56	£41.66
211877 47.5 x 47.5 x 93cm, Fine nylon mesh	\$90	€79	£58.29

BG-Sentinel Spare Catch Bag

The BG-Sentinel Catch Bag is attached to the intake funnel and catches and retains the mosquitoes or midges that are sucked in by the ventilator fan. This Spare Catch Bag is useful as a spare or replacement for the BG-Sentinel range of traps. Regular replacement of the catch bag will help to ensure that high catch rates are maintained as debris can reduce the catch.

(Prices exclude VAT)

218208 Spare Catch Bag	\$4	€3	£2.50
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**BG-Sentinel Funnel Net**

The BG-Sentinel Funnel Net ensures that trapped mosquitoes in the catch bag cannot fly or crawl out of the trap. Replace your funnel net regularly to maintain optimum catch rates.

(Prices exclude VAT)

218207 Funnel Net	\$4	€3	£2.29
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**BG-Sentinel Replacement Set**

This BG-Sentinel Replacement Set is a useful set of spares or replacements for your BG-Sentinel Mosquito Trap. It contains four replacement catch bags, one funnel net and one white gauze cover and represents an affordable way to update your trap or keep spare parts. It is important to replace some of the material parts of the trap occasionally as they become clogged with debris over time and can reduce the catch rate of the trap.

(Prices exclude VAT)

218205 Replacement Set	\$23	€20	£14.99
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**Chironomid Exuviae Nets.**

See page 155



Chironomid Exuviae Nets
P155 ►



NHBS now stocks a wide range of insect breeding cages, containers, sleeves, and tents to suit most species. The Rearing Sleeves (page 145) can be used in the field or within the laboratory and are ideal for rearing tricky phytophagous insects. The Mini Soil Emergence Trap and the Insect / Mosquito Breeder shown on page 140 are also extremely useful if you want to raise either aquatic or soil dwelling insects. Many of the BugDorm brand cages are available with polyester mesh which is suitable for most insects or fine nylon mesh which is best for small insects including aphids and aphid parasitoids.



BugDorm Insect Pots

These containers are ideal for maintaining and breeding small insects. They are available in four sizes with volumes of 240ml, 360ml, 480ml and 720ml. The lid of the container has a nylon mesh screen which provides excellent ventilation and the outer rim of the lid has a matt surface which is ideal for pencilling in your own notes. Available either singly or in packs of 12.

		\$	€	£
219865	240ml: Single	\$4	€3	£2.41
219866	240ml: Pack of 12	\$37	€33	£24.08
219867	360ml: Single	\$4	€3	£2.50
219868	360ml: Pack of 12	\$39	€34	£25.00
219869	480ml: Single	\$4	€3	£2.58
219870	480ml: Pack of 12	\$40	€35	£25.83
211330	720ml: Single	\$4	€4	£2.71
211329	720ml: Pack of 12	\$42	€37	£27.08



Pop-up Port-a-Bug

The Pop-up Port-a-Bug is perfect for using in the garden and on field trips. The collapsible cage folds flat into the carry bag provided and the sides are made from soft mesh which will not damage insect wings and is fine enough to allow you to examine specimens.

		\$	€	£
177618	Pop-up Port-a-Bug	\$6	€6	£4.16

Free Standing Bug Cage

The free standing bug cage is ideal for crawling and flying insects of all types, including small or immature stick insects or mantids and egg-laying Lepidoptera. Lightweight and portable, these mini cages are also useful for travel, offering temporary accommodation for a wide range of insects. Measures 25cm in diameter and 33cm long when assembled with netting cage over internal frame.

		\$	€	£
185637	Free Standing Bug Cage	\$27	€24	£17.49



Hanging Cages

Hanging cages are used for emergence, flight, pairing and egg-laying.

The net is sewn with no internal projecting seams and cages are fitted with a vertical entry single-slider side zip. Optional support rods are available.

		\$	€	£
185628	30.5cm Diameter	\$29	€25	£18.74
185629	40.5cm Diameter	\$36	€32	£23.29
185630	Support Rods - 30.5cm	\$10	€9	£6.63
185631	Support Rods - 40.5cm	\$16	€14	£10.42



BugDorm-2 Insect Rearing Tent

The BugDorm-2 Insect Rearing Tents have a lightweight fibreglass frame. The front and back panels are made from clear plastic which allows for easy observation and the side panels are made from polyester netting for ventilation. The support poles are located on the outside of the enclosure so that there are no nooks and crannies for insects to get stuck in. The tent has a larger zipped opening in the front panel which is large enough to insert and remove plants. The small tent has an additional 15cm diameter sleeve and the medium tent has two sleeves, which can be used for the addition of food and the handling of insects. The large tent has small zipped windows in the side and rear panels.

		\$	€	£
211284	Small (60 x 60 x 60cm)	\$39	€34	£24.99
211285	Medium (75 x 75 x 115cm)	\$78	€69	£50.79
211286	Large (160 x 160 x 180cm)	\$310	€272	£200.79



Tabletop Cages

Tabletop cages for larvae and flying insects have high all-round visibility providing excellent viewing and gently rounded corners to avoid insects being trapped. They are weather resistant and have a sturdy plastic base for easy cleaning. The standard cage measures 46cm wide x 35cm deep x 42cm tall and the large cage measures 58cm wide x 51cm deep x 62cm tall.

		\$	€	£
185641	Tabletop Cage - Standard	\$68	€60	£44.16
185642	Tabletop Cage - Large	\$86	€75	£55.42



Tabletop Cage - Large

Rearing and Studying Stick and Leaf-Insects

Paul D Brock (2003)

This revised edition is especially intended for beginners and features the majority of culture stock available with 22 covered in detail. Common names are included.



142467	PBK	\$18	€16	£11.50
151705	PBK	\$14	€12	£8.99

Breeding the British Butterflies

Peter W Cribb (2001)

Practical handbook covering all aspects of butterfly breeding including general techniques, equipment and information on many British species.





BugDorm-4 Insect Rearing Cage

The BugDorm-4 Insect Rearing Cage consists of fibreglass poles which connect together to form the frame of a cube or cuboid. A mesh cage threads onto these poles to create a secure environment which can be used to breed and maintain insects. All cages have an 18cm diameter sleeve opening in the front panel which allows access to the inside whilst ensuring that insects do not escape. The largest size (47.5 x 47.5 x 93cm) has two sleeves at different heights. With the exception of the three smallest cages (17.5cm³, 24.5cm³ and 32.5cm³) all models have an additional zipped door which can be used to add and remove larger objects such as plants and feeders. A thin strip of fabric across the ceiling allows for the suspension of feeders. Available with either standard polyester netting (680µm mesh) or fine nylon netting (160µm mesh).

(Prices exclude VAT)

	\$	€	£
219877 17.5 x 17.5 x 17.5cm, Polyester mesh	\$23	€20	£15.00
219898 24.5 x 24.5 x 24.5cm, Polyester mesh	\$25	€22	£16.25
219899 24.5 x 24.5 x 24.5cm, Fine nylon mesh	\$35	€31	£22.50
211476 32.5 x 32.5 x 32.5cm, Polyester mesh	\$24	€21	£15.83
211478 32.5 x 32.5 x 32.5cm, Fine nylon mesh	\$36	€32	£23.29
211479 47.5 x 47.5 x 47.5cm, Polyester mesh	\$42	€37	£27.49
211481 47.5 x 47.5 x 47.5cm, Fine nylon mesh	\$62	€54	£39.99
219902 24.5 x 24.5 x 63cm, Polyester mesh	\$46	€41	£30.00
219914 24.5 x 24.5 x 63cm, Fine nylon mesh	\$58	€51	£37.50
219937 32.5 x 32.5 x 77cm, Polyester mesh	\$49	€43	£31.67
219946 32.5 x 32.5 x 77cm, Fine nylon mesh	\$68	€60	£44.17
219949 47.5 x 47.5 x 93cm, Polyester mesh	\$55	€49	£35.83
219951 47.5 x 47.5 x 93cm, Fine nylon mesh	\$86	€76	£55.83



Insect Rearing Sleeve

These Insect Rearing Sleeves allow you to observe insects in situ by containing sections of branches within a temporary enclosure. Made from nylon netting (300µm mesh) they have a large window for easy observation. A full length zipper provides access and long strings at each end allow the sleeve to be secured to the branch. Available in two sizes.

(Prices exclude VAT)

	\$	€	£
211890 20 x 40cm	\$7	€6	£4.58
211891 30 x 70cm	\$10	€8	£6.25



BugDorm-6 Insect Rearing Cage

The BugDorm-6 Insect Rearing Cage has a robust aluminium frame which is easily assembled from individual poles and connectors. A polyester mesh tent threads onto this frame to form a self contained enclosure which is large enough for small potted plants. This cage has a large zippered opening in the front panel which allows the addition and removal of plants and feeders. Additional sleeve openings (one in the smallest model and two in the larger models) can be used to provide food and remove insects with minimal risk of insect escape. Available in three sizes.

(Prices exclude VAT)

	\$	€	£
211883 60 x 60 x 60cm	\$76	€67	£49.16
219965 60 x 60 x 120cm	\$122	€107	£79.17
219969 60 x 60 x 180cm	\$175	€154	£113.33



BugDorm-5 Insect Box

These 1.5 litre containers are ideal for raising small colonies of insects. The lid has a removable nylon screen for ventilation. Available either singly or in packs of 12. Dimension: 21 x 21 x 6cm.

(Prices exclude VAT)

	\$	€	£
211885 Single	\$9	€8	£5.79
211884 Pack of 12	\$105	€93	£68.29



Insect Rearing Bag

These Insect Rearing Bags allow you to study insects in situ. All sizes have a drawstring that can be pulled tight and tied. The large bags also have a zippered opening for easy access. Bags are made from fine nylon netting (300µm mesh) and are available in four sizes.

(Prices exclude VAT)

	\$	€	£
211886 6 x 15cm	\$1	€1	£0.79
211887 10 x 30cm	\$2	€2	£1.25
211888 48 x 71cm	\$9	€8	£5.79
211889 66 x 100cm	\$13	€11	£8.29

BEATING TRAYS & POOTERS



Rectangular Beating Tray

The Rectangular Beating Tray is a 'Bignal Pattern' tray with a folding frame. It is suitable for collecting invertebrates from trees and branches and is available with either a black or white bag. When unfolded the collection area is approximately 110 x 86cm. Spare bags are also available to purchase separately.



	\$	€	£
177374 Beating Tray - White	\$96	€84	£62.08
198811 Beating Tray - Black	\$96	€84	£62.08
202837 Spare Bag - White	\$30	€26	£19.16
202838 Spare Bag - Black	\$30	€26	£19.16



Beating Sheet

This Beating Sheet is made from durable, wipe clean fabric and is ideal for invertebrate surveys. The sheet is 1m x 1m providing a large surface area for collecting invertebrates "beaten" from trees or bushes. It comes with a handy bag for storage and transport.

	\$	€	£
216727 Beating Sheet	\$15	€14	£9.99

LAB SUPPLIES ► PAGE 128-129

For Forceps, Sample Bags and Containers, Tubes and Test Tubes see pages 128-129



P128-129 ►

Tree Bark Net

This Tree Bark Net is designed for use in catching insects from the bark of trees. It has a two part folding steel frame with a rubber edge and a white monofilament net. The trap is designed so that the long elasticated edge sits snugly against the tree trunk and then you can brush insects into the trap from the bark. Net diameter: 35cm, trap length: 20cm.



	\$	€	£
211874 Insect Tree Net	\$21	€18	£13.29

Lightweight Beating Tray

The Lightweight Beating Tray is made from a very light alloy with a telescopic handle that can be unscrewed and detached from the frame. The handle extends from 25cm to 37cm. An eye in the end of the handle allows the beating tray to be attached to a cord or hooked onto a belt. The head is 45 x 50cm.



(Prices exclude VAT)

	\$	€	£
189404 Lightweight Beating Tray	\$60	€53	£39.17



Large Beating Tray

The Large Beating Tray is mounted on a heavy duty aluminium frame and handle. The handle retracts down to 85cm and extends to 145cm including the net head. The net head is 60 x 70cm and the bag is white industrial nylon in a tube collar.



(Prices exclude VAT)

	\$	€	£
189403 Large Beating Tray	\$58	€51	£37.49

Litter Sieve

This litter sieve has a diameter of 28cm and is available with different sized mesh. It also comes with a 1m x 1m piece of white fabric and a black sifting bag. Ideal for sorting litter samples, before placing them in a Berlese Funnel.

	\$	€	£
212423 4mm mesh	\$62	€54	£39.99
212424 6mm mesh	\$60	€53	£38.75
212425 8mm mesh	\$58	€51	£37.49
212426 10mm mesh	\$57	€50	£36.66

Collecting Tins

Glass top collecting tins in rust-proof metal with see-through push-on lids for viewing specimens. Single collecting tin is 7.5cm in diameter. Also available in a pack of five nested tins in a range of sizes: Diameter 3.3cm, 3.8cm, 5cm, 6.3cm and 7.5cm.



(Prices exclude VAT)

	\$	€	£
193346 Single Tin	\$3	€3	£2.08
177375 Nest of Five	\$12	€10	£7.49

Foldable Beating Tray

These foldable beating trays are ideal for fieldwork as they pack down into a convenient size for carrying. The tray consists of a foldable ring, catch bag, retractable aluminium handle and carrying bag. Available in two sizes measuring 60cm and 90cm in diameter when assembled. The handle of both sizes extends from 45cm up to 105cm.



(Prices exclude VAT)

	\$	€	£
211209 60cm diameter	\$54	€47	£35.00
211210 90cm diameter	\$69	€61	£45.00

Collapsible Beating Tray

The Clap Net consists of a collapsible cross frame which holds open a white textile collecting bag measuring 1m x 1m. This net can be used to collect insects from beneath trees and bushes and will fold up into a carrying bag measuring 40cm in length, making it simple to transport and store.



(Prices exclude VAT)

	\$	€	£
211873 Beating Tray	\$64	€56	£41.63

Collecting Pots

These collecting pots have a capacity of 70ml and have white screw-on lids. They are perfect for storing samples whilst out in the field and for transporting specimens. Available either singly or in packs of five or thirty. Dimensions: 4.5cm diameter x 5.7cm height.



(Prices exclude VAT)

	\$	€	£
175999 Single pot	\$1	€1	£0.58
176000 Pack of 5	\$4	€3	£2.49
186938 Pack of 30	\$21	€18	£13.29

Plain Round Card Insect Boxes

Great value containers for insect handling and examination, this set comprises four nesting round card boxes with either clear plastic or card bases.



(Prices exclude VAT)

	\$	€	£
177376 Card Bases	\$5	€4	£3.29
177377 Clear Plastic Bases	\$7	€6	£4.58



Pot Pooter

The pooter measures 4.5cm diameter x 6cm height and has a screw-on collecting chamber. Tubing is made from rubber and has an internal diameter of 0.5cm.



(Prices exclude VAT)

175929 Pot Pooter \$5 €5 £3.32

Barrel Pooters

These aspirators have a transparent plastic barrel and vinyl hose which is connected to the barrel with cork. Available with 20mm or 30mm diameter barrel. The 30mm version is available with a 5mm or 7mm tube.



(Prices exclude VAT)

	\$	€	£
211870 20mm barrel, 5mm tube	\$10	€9	£6.63
211869 30mm barrel, 5mm tube	\$9	€8	£5.79
211871 30mm barrel, 7mm tube	\$12	€11	£7.92

Marking Pens



Marking Paint



500ml Wide Mouthed Containers

These robust containers make ideal killing jars. The container is constructed from high-density polyethylene.



(Prices exclude VAT)

	\$	€	£
193287 Pack of 5	\$8	€7	£5.42
193287 Single	\$2	€2	£1.46



Bug Tongs

These scissor action Bug Tongs are the perfect way for children to collect larger insects which cannot easily be caught using a pooter. Flying, swimming and crawling insects can all be captured and released quickly and safely using these Tongs. Once captured they can be transferred to larger pots for examination if required.

(Prices exclude VAT)

	\$	€	£
202233 Bug Tongs	\$3	€3	£2.08

WHITE PLASTIC TRAYS ► PAGE 155



P155 ►

Insect Marking

The marking cage consists of a plastic tube with mesh at one end and foam-padded plunger at the other so insects can be held safely without damaging their wings. Pens and paints are water-based, non-toxic, non-fade and quick drying.

(Prices exclude VAT)

	\$	€	£
193347 Marking Cage	\$12	€10	£7.71

Marking Paint

193824 Set of five colours	\$9	€8	£5.83
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Marking Pens

193624 Set of five colours	\$42	€37	£27.49
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Ethyl Acetate (100ml)

Ethyl acetate is used for killing insect specimens. A small amount should be placed on filter paper or plaster of paris within an ethyl acetate resistant jar to quickly kill specimens. Short term exposure to high levels of ethyl acetate can cause irritation of the eyes, nose and throat. Use only in a well ventilated area.



Please Note: This item can only be shipped to locations in mainland UK. Due to post restrictions this item will be shipped using a courier service.

(Prices exclude VAT)

	\$	€	£
211872 Ethyl Acetate (100ml)	\$3	€3	£2.08

BEATING TRAYS & POOTERS



HB-type Pooter

Unlike traditional pooters, the HB-type uses a hand-held syringe bulb to suck objects into the pooter. This reduces risk to the user when collecting potentially harmful invertebrates such as ants, or when collecting from carcasses or faeces. The HB-type pooter comes with four collection vials, an insect pick-up pipe, nylon filter and a syringe bulb. Pick-up pipes are available in three different diameters.

(Prices exclude VAT)

	\$	€	£
216315 6mm Pick-up Pipe	\$35	€30	£22.46
216316 8mm Pick-up Pipe	\$36	€32	£23.29
216317 12mm Pick-up Pipe	\$37	€33	£24.13



Butterfly Bags (packs of 100)

These Butterfly Bags are for storing unmounted butterfly specimens. The bags are quadrangular and are made from parchment paper. Available in six different sizes.

(Prices exclude VAT)

	\$	€	£
216653 45 x 60mm	\$7	€6	£4.52
216654 63 x 93mm	\$8	€7	£4.95
216655 75 x 102mm	\$9	€8	£5.71
216656 85 x 117mm	\$10	€8	£6.19
216657 95 x 132mm	\$11	€10	£7.02
216658 75 x 105mm	\$9	€8	£5.71



Pit Fall Traps

These Flip Top Containers make ideal pit fall traps. They are made out of shatterproof polypropylene with pop-on lids. Available in 200ml, 400ml and 960ml volumes.

	\$	€	£
193546 200ml - Pack of 10	\$4	€3	£2.50
193547 200ml - Pack of 100	\$36	€32	£23.33
193540 400ml - Pack of 10	\$6	€5	£3.75
193541 400ml - Pack of 100	\$55	€49	£35.83
193542 960ml - Pack of 5	\$8	€7	£5.21
193543 960ml - Pack of 50	\$77	€68	£49.99



Continental Pins

Continental length pins (38mm) of various thicknesses (Size 000 to Size 6). Stainless steel or black enamelled pins available. Sold in packs of 100.

(Prices exclude VAT)	\$	€	£
Stainless Steel - from	\$6	€5	£3.95
Black enamelled - from	\$5	€4	£2.99

Micro Pins - Various Sizes Available

Fine headless stainless steel pins for side pinning Diptera and other small insects. Available in various thicknesses (Size 0.10 to Size 0.25). Sold in packs of 100.

(Prices exclude VAT)	\$	€	£
Micro Pins - from	\$14	€12	£8.95



Mounting Boards

Mounting Boards are available in rectangular, pointed, triangular or J-shaped and come in a variety of sizes. All sold in packs of 100.

(Prices exclude VAT)	\$	€	£
Rectangular - from	\$2	€2	£1.25
Pointed - from	\$2	€2	£1.25
Triangular - from	\$2	€2	£1.25
J-Shaped - from	\$2	€2	£1.25

Mounting Glue

Mounting Glue is sold in a 30ml squeezable bottle with a fine nozzle.

(Prices exclude VAT)	\$	€	£
211860 Mounting Glue	\$3	€2	£1.66

Brush

Size 00 brush ideal for fine work and for ringing slides.

(Prices exclude VAT)	\$	€	£
186355 Brush	\$1	€1	£0.83



Storkbill Forceps

Flexible 'watch spring' forceps, suitable for delicate specimens.

(Prices exclude VAT)	\$	€	£
188629 Fine Blunt	\$15	€14	£9.99
188628 Fine Pointed	\$18	€16	£11.66
188630 Short Blunt	\$11	€10	£7.08



Sakura Pigma Micron Pens

Pigma Micron pens use archival quality ink and are ideal for labelling entomological specimens. Available with black ink and in two nib sizes. 005 = 0.2mm, 01 = 0.25mm.

(Prices exclude VAT)	\$	€	£
212531 Size: 005	\$4	€3	£2.49
212532 Size: 01	\$4	€3	£2.49



Plastazote Foam

These sheets of Plastazote Foam measure 10mm in thickness and can be purchased in sheets of either 1m x 2m, 1m x 1m or 10cm x 10cm. They can be easily cut to suit your needs and are ideal for lining entomological display boxes, as they provide an excellent surface for pinning. They can also be used to create mounts for micropins.

(Prices exclude VAT)	\$	€	£
216669 10cm x 10cm	\$2	€1	£1.04
214353 1m x 1m	\$26	€23	£16.66
213377 1m x 2m	\$46	€41	£29.99



Storage Box with Plastazote Base

This entomological storage box is made from wood covered in book binding cloth. The plastazote layer in the bottom of the box provides the ideal surface for pinning. The box measures 30 x 40 x 5.4cm. Storage boxes are available in three colours and with the option of a glass lid.

(Prices exclude VAT)	\$	€	£
216080 Black	\$24	€21	£15.79
216081 Green	\$24	€21	£15.79
216082 Red	\$24	€21	£15.79
216083 Black Glass Lid	\$26	€23	£16.66
216084 Green Glass Lid	\$26	€23	£16.66
216085 Red Glass Lid	\$26	€23	£16.66

Entomological Storage Boxes

Storage box (30 x 40 x 5.4cm) with glass lid. Inserts of different sizes available to purchase separately so boxes can be configured to your own specifications.

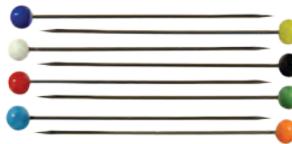
(Prices exclude VAT)	\$	€	£
211863 Storage Box	\$21	€18	£13.29
211864 1/4 size insert	\$3	€2	£1.66
211865 1/8 size insert	\$2	€1	£1.04
211866 1/16 size insert	\$1	€1	£0.83
211867 1/32 size insert	\$1	€1	£0.63



Label Pins

These galvanised pins are for attaching labels within an insect display box. Each pin is 10mm in length.

(Prices exclude VAT)	\$	€	£
211208 Pack of 100	\$2	€2	£1.25
211762 Pack of 500	\$8	€7	£4.96



Glass Headed Pins

Plastic Headed Pins ideal for pinning setting strip. Sold in boxes of 100 pins. Each pin measures 30mm in length.

(Prices exclude VAT)	\$	€	£
211763 Plastic Headed Pins	\$5	€4	£2.92

Pergamine Setting Strip

Pergamine Setting Strip is available in five widths. Sold in lengths of 40m.

(Prices exclude VAT)	\$	€	£
211814 10mm	\$4	€3	£2.29
211815 15mm	\$4	€3	£2.50
211816 20mm	\$5	€4	£2.92
211817 30mm	\$5	€5	£3.54
211818 40mm	\$6	€5	£3.96



Lepidoptera Setting Boards

Balsa wood setting boards suitable for the preparation of Lepidoptera. Available in a variety of sizes with groove width ranging from 4 to 14mm.

(Prices exclude VAT)	\$	€	£
211767 40 x 300mm, 4mm groove	\$20	€14	£7.92
211768 60 x 300mm, 6mm groove	\$13	€11	£8.29
211769 80 x 300mm, 8mm groove	\$14	€12	£8.75
211770 100 x 300mm, 10mm groove	\$17	€15	£10.79
211771 120 x 300mm, 12mm groove	\$15	€13	£9.58
211772 140 x 300mm, 14mm groove	\$15	€14	£9.96



Micro-Lepidoptera Setting Boards

Balsa wood setting boards suitable for the preparation of micro-Lepidoptera. Available in a variety of sizes with groove width ranging from 1 to 3mm.

(Prices exclude VAT)	\$	€	£
211764 23 x 200mm, 1mm groove	\$8	€7	£4.96
211766 33 x 200mm, 2mm groove	\$9	€8	£5.63
211765 43 x 200mm, 3mm groove	\$10	€8	£6.25



Setting Needle

Stainless steel setting needles are available with either a straight or curved point, ideal for manipulating specimens when setting. Length 136mm (straight) and 134mm (curved).

(Prices exclude VAT)	\$	€	£
211861 Straight Needle	\$8	€7	£5.42
211862 Curved Needle	\$8	€7	£5.42



Plastazote Setting Board - Angular (Continental)

These setting boards are made from white Plastazote which provides an excellent surface for inserting pins and setting insects. The sides of the boards are flat and the base is made from hard board. Available in a variety of sizes.

(Prices exclude VAT)	\$	€	£
211825 40 x 300mm, 4mm groove	\$8	€7	£4.99
211826 60 x 300mm, 6mm groove	\$8	€7	£5.42
211827 80 x 300mm, 8mm groove	\$10	€9	£6.63
211828 100 x 300mm, 10mm groove	\$12	€10	£7.46
211829 120 x 300mm, 12mm groove	\$14	€12	£8.75
211830 140 x 300mm, 14mm groove	\$15	€14	£9.96



Carry Case for Setting Boards

Natural wooden case designed to carry and store Balsa wood Lepidoptera Setting Boards. With chrome-plated fastenings and a strong carrying handle. Available in two sizes. Small: 32.5 x 27 x 9cm, Large: 43 x 32.5 x 9cm.

(Prices exclude VAT)	\$	€	£
211775 Small	\$39	€34	£24.96
211776 Large	\$59	€51	£37.95

ENTOMOLOGY BOOKS

GENERAL ENTOMOLOGY GUIDES

The Royal Entomological Society Book of British Insects

Peter C Barnard (2011)



This book is the only modern systematic account of all 558 families of British insects, all of the 6,000 genera are listed and indexed, along with all the family names and higher groups. Beautifully illustrated throughout in full colour with photographs by experienced wildlife photographers.

191947 HBK

\$69 €61 £44.99

ECOLOGY, EVOLUTION AND CONSERVATION

Insect Species Conservation

Tim R New (2009)

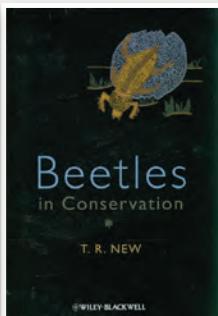
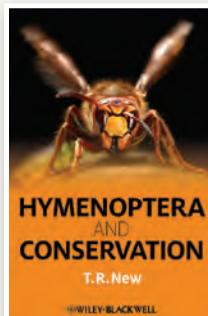
Insect Species Conservation provides sufficient background information, illustrated by examples from many parts of the world, to enable more confident and efficient progress towards the conservation of these ecologically indispensable animals.

175857 PBK

\$69 €61 £44.99

**Wiley's Insect Conservation Trilogy**

Tim R New (2010–2013)



This trilogy provides a global overview of the importance of insect conservation. It brings together much information to demonstrate both the need for conservation and how it may be approached. The three volumes cover Beetles, Hymenoptera and Lepidoptera.

183819 Beetles in Conservation

\$107 €94 £69.50

199080 Hymenoptera and Conservation

\$69 €61 £44.99

208312 Lepidoptera and Conservation

\$101 €89 £65.50

SURVEY GUIDELINES

Insects: Expedition Field Techniques

George C McGavin (2007)

Authoritative handbook detailing: planning and preparation; safety in the field; conservation; collecting insects; killing methods; specimen preservation and identification. Many techniques are also appropriate for collecting other sorts of arthropod.

80873 Spiralbound

\$26 €23 £16.99

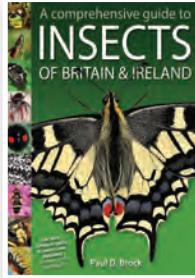
**A Comprehensive Guide to Insects of Britain & Ireland**

Paul D Brock (2014)

A major guide to insects of Britain and Ireland, with over 2500 species photographed. The book is illustrated in full colour throughout, with fully comprehensive sections on all insect groups, including flies, bees and wasps.

213527 PBK

\$45 €39 £28.95

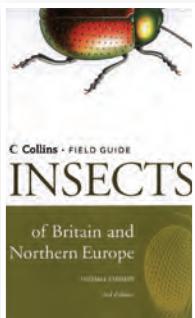
**Collins Field Guide to the Insects of Britain and Northern Europe**

Michael Chinery (1993)

Fully revised edition of Chinery's classic work. Not to be confused with Chinery's Collins Guide to the Insects of Britain and Western Europe, this book is a discursive introduction to entomology, useful for identification, but with an equivalent content on biology and taxonomics, whereas the Collins Guide is a straight identification guide.

2518 HBK

\$46 €41 £29.99

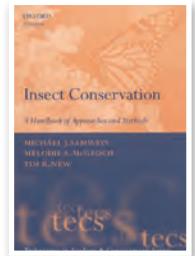
**Insect Conservation**

Michael J Samways et al. (2009)

Insect Conservation outlines the main methods and techniques available to entomologists, providing a comprehensive synthesis for use by graduate students, researchers and practising conservationists worldwide.

156448 PBK

\$59 €52 £37.99

**Planet of the Bugs: Evolution and the Rise of Insects**

Scott Richard Shaw (2014)

A sweeping account of insects' evolution from humble arthropod ancestors into the bugs we know and love. This book unearths how our planet's history has contributed to their success and how, in return, insects came to shape terrestrial ecosystems.

214198 HBK

\$30 €26 £19.50

**The Evolution of Insect Mating Systems**

David Shuker and Leigh Simmons (2014)

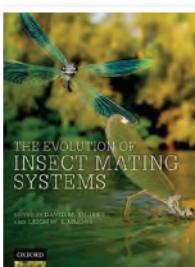
Insects display a staggering diversity of mating and social behaviours. In studying these, this book provides an insight into many evolutionary and behavioural questions and has influenced the study of the evolution of reproductive behaviour far beyond the taxonomic remit of insects.

213632 PBK

\$58 €51 £37.50

213631 HBK

\$116 €102 £74.99

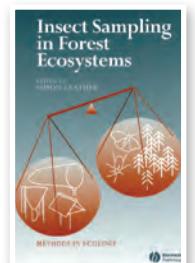
**Insect Sampling in Forest Ecosystems**

Ed. By Simon Leather (2004)

Brings together the methodology needed to investigate insects through the various strata of the forest canopy, covering techniques associated with various specialised groups of forest insects.

119326 PBK

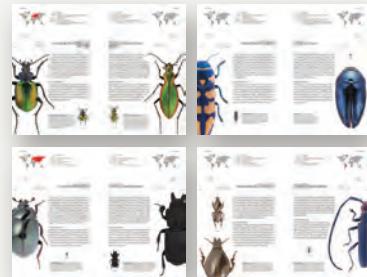
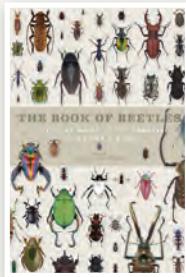
\$116 €102 £75.50



BEETLES (COLEOPTERA)

The Book of Beetles

Ed. by Patrice Bouchard (2014)



The Book of Beetles features 600 significant beetles, selected as part of a genome program. They are shown in glorious photographs, life size and in detail, alongside an engraving offering a side or open-winged view.

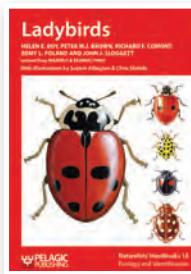
216382 HBK

\$46 €41 £29.99

LadybirdsHelen E Roy *et al.* (2013)

This revised and updated edition of Ladybirds provides a succinct but comprehensive and accessible overview of the biology of ladybirds and their parasites, focusing on ecology in an evolutionary context. It provides the latest information, coverage of recent additions to the British list including the harlequin ladybird.

190913 PBK \$31 €27 £19.99

**Atlas of the Seed and Leaf Beetles of Britain and Ireland**

Michael L Cox (2007)

There are 15 species of Bruchids and 216 species of Chrysomelids in Britain and Ireland. For each species there is an account of habitat, world distribution, host plants and life cycle, together with information on parasitoids, parasites and predators.

170453 PBK \$38 €34 £24.95

**BEES, ANTS & WASPS (HYMENOPTERA)****Field Guide to the Bumblebees of Great Britain and Ireland**

Mike Edwards and Martin Jenner (2009)



Excellent photographic field guide of the bumblebees of Britain and Ireland published in association with Natural England. Contains an identification chart, photographs of all 22 known species, information on life history and conservation.

182677 PBK

\$19 €16 £11.99

Bee ConservationLynn V Dicks *et al.* (2010)

This synopsis covers evidence on the effects of conservation interventions for native, wild bees. Evidence from all around the world is included and conservation interventions are grouped primarily according to relevant direct threats.



\$31 €27 £19.99

A Sting in the Tale

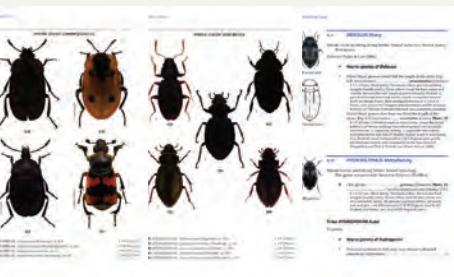
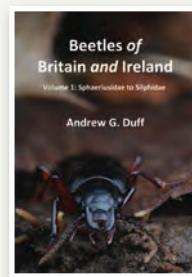
Dave Goulson (2014)

One of the UK's most respected conservationists and the founder of the Bumblebee Conservation Trust, Goulson combines Gerald Durrell-esque tales of a child's growing passion for nature with a deep insight into the crucial importance of the bumblebee.

211475 PBK

Beetles of Britain and Ireland, Volume 1

Andrew Duff and Udo Schmidt (2012)



Beetles of Britain and Ireland, Volume 1: Sphaeriusidae to Silphidae is intended as a reference source for coleopterists. It is the first comprehensive account of the beetles of the British Isles since Joy's A Practical Handbook of British Beetles, published in 1932.

200639 HBK

\$137 €121 £89.00

Ground Beetles

TG Forsythe and S Allington (2000)

Ground beetles are a favourite group with entomologists and this book contains simplified keys which will allow identification of the most common, as well as more rare or localised, species. Tiger beetles have also been included in this title.

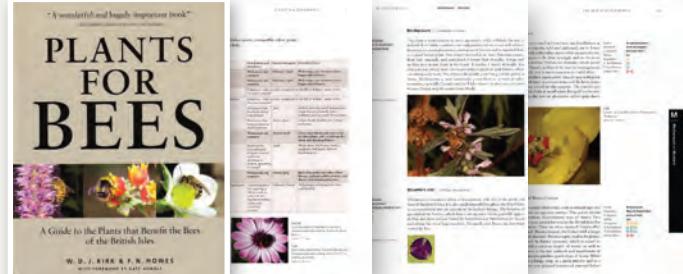


2857 PBK \$23 €20 £14.99

2966 HBK \$31 €27 £19.99

Plants for Bees: A Guide to the Plants that Benefit the Bees of the British Isles

WJD Kirk and FN Howes (2012)



This book explains the importance of planting flowers for both long- and short-tongued bees species. A simple key system allows gardeners to choose between more than 300 plants and the information is punctuated by stunning photography.

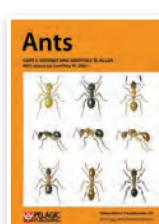
199007 HBK

\$39 €34 £24.99

Ants

Gary Skinner and Geoffrey Allen (2013)

Ants contains information on biology of ants and various techniques for studying ants. A chapter on ant identification forms the bulk of this handbook with keys to worker ants, queen ants and male ants accompanied by colour and black & white plates.



208043 PBK

\$23 €20 £14.99

ENTOMOLOGY BOOKS

FLIES (DIPTERA)

Britain's Hoverflies

Stuart Ball and Roger Morris (2013)

Accessible and designed to appeal to a wide audience, the book contains more than 500 remarkable photographs exploring the various life stages of all 69 hoverfly genera and the 164 most commonly seen species. Easy-to-use species accounts highlight key identification features, including status, behaviour, and habitat requirements.

198785 PBK \$38 €34 £24.95

**British Soldierflies and their Allies**

Alan E Stubbs and Martin Drake (2014)

British Soldierflies and their Allies is a guide to the identification and natural history of eleven families of large and attractive flies that have fascinated entomologists for many years. Illustrations of the identification features are shown alongside the couplets, which allows species to be recognized more easily.

212408 HBK \$54 €47 £34.99

**The European Families of the Diptera**

Pjotr Oosterbroek (2006)

Presents an identification key and family descriptions of all 132 families of Diptera (midges, mosquitoes, gnats, true flies) occurring in Europe. Enables identification of families which are aberrant or considered difficult to identify. Over 600 line drawings are included to illustrate characters and families.

165292 HBK \$85 €75 £54.99



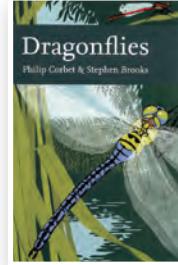
DRAGONFLIES & DAMSELFLIES (ODONATA)

Dragonflies

Philip Corbet and Stephen Brooks (2008)

In this seminal new work, Philip Corbet and Stephen Brooks examine the behaviour, ecology and distribution of dragonflies in Britain and Ireland, placing emphasis on the insects' habitats and on measures needed to conserve them.

137637 PBK \$39 €34 £24.99

**Britain's Dragonflies**

Dave Smallshire and Andy Swash (2014)

Covering all 56 resident, migrant and former breeding species, and seven potential vagrants. The book focuses on identification - both of adults and larvae. Detailed species profiles provide concise information on identification, distribution, flight periods, behaviour, habitat, status and conservation.

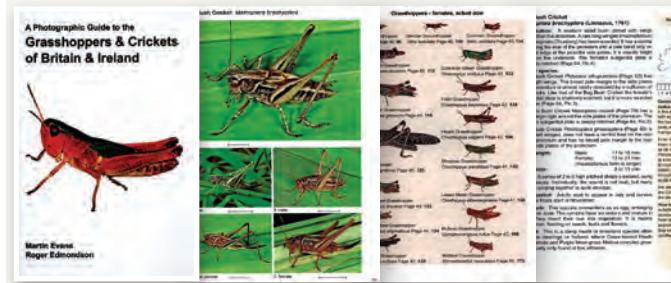
211302 PBK \$28 €24 £17.95



GRASSHOPPERS & CRICKETS (ORTHOPTERA)

A Photographic Guide to the Grasshoppers & Crickets of Britain and Ireland

Martin Evans and Roger Edmondson (2007)



A field guide to the grasshoppers and crickets found in Britain, Ireland, the Isle of Man and the Channel Islands. The book includes photographs and life histories of all the resident, vagrant and introduced species.

169967 HBK \$42 €37 £27.50

Field Guide to the Dragonflies & Damselflies of Great Britain and Ireland

Steve Brooks and Steve Cham (2014)



Shortlisted for the 1998 BP Natural World Book, this highly successful title is widely considered as the definitive guide to the dragonflies and damselflies found in Britain and Ireland. Includes comprehensive species descriptions.

215504 PBK \$29 €26 £18.95

SPIDERS (ARACHNIDA)

The Private Life of Spiders

Paul Hillyard (2011)



Illustrated throughout with stunning photographs, author Paul Hillyard lifts the lid on the complex world of spiders, from their hunting strategies and amazing web-spinning skills to their extraordinary courtship displays and devoted care for their young.

188879 HBK \$23 €20 £14.99

**Grasshoppers & Crickets**

Ted Benton (2012)

Ted Benton offers a comprehensive account of the appearance, variations, behaviour, habitat, life-cycles and distribution of all the native British species of bush-crickets, crickets, groundhoppers and grasshoppers. Many details from direct field observation are included, which are published here for the first time.

172276 PBK \$46 €41 £29.99

**Collins Field Guide to the Spiders of Britain and Northern Europe**

Michael J Roberts (2001)

Major identification guide to 450 species of spider, designed for easy use without any complicated keys or equipment. Each species is described in detail and illustrated in colour, including common colour variants and differences between the sexes.

34466 HBK \$46 €41 £29.99

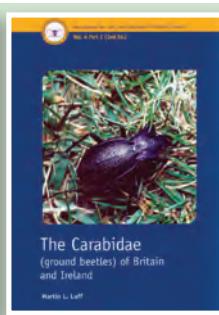
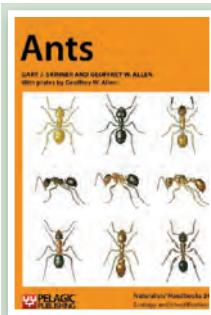
**Keys to the Families of British Spiders**

LM Jones-Walters (1989)

This well illustrated guide includes all of the 34 families known to occur in Britain. Two identification keys are presented. The first uses morphological characters; the second includes a range of behavioural and ecological characters.

10202 PBK \$15 €13 £9.50





Naturalists Handbook Series

Naturalists' Handbooks encourage and enable those interested in natural history to undertake field study, make accurate identifications and to make original contributions to research. A typical reader may be studying natural history at sixth-form or undergraduate level, carrying out species/habitat surveys as an ecological consultant, undertaking academic research or just developing a deeper understanding of natural history.

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Synopses of British Fauna

Suitable for more experienced users, these are a series of invaluable identification works which bridge the gap between the popular guides and specialised monographs. Each volume presents a more detailed account of a group of animals than is found in most field guides, and is illustrated with diagrams and figures.

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Siphonophores & Velellids (Vol 29) (1984)				
490 PBK	\$17	€15	£10.99	

HAND NETS



Professional Hand Nets

•Conforms to Environment Agency Specifications

These hand nets are very sturdy, but light and easy to use. The wooden handle will float and is comfortable to use in cold weather. The outer net frame is aluminium alloy, and the net bag is attached by an inner brass frame to reduce wear. The high specification net bags are made from knitted polyester for extra durability. Meets Environment Agency specifications. Also available with an aluminium handle. Outer frame width 250mm, total length 1.48m. The 1mm mesh standard 0.3m bag is recommended for general water sampling. The 2mm mesh is suitable for catching amphibians.



BESTSELLER

Small Hand Net

•Lighter version of professional hand net

These nets are made to the same design as the Professional Hand Net, but are smaller and lighter. They are ideal for use by students or children, and are also suitable for sampling in restricted sites by professional biologists. Outer frame width 200mm, total length 1.45m.

	\$	€	£
175931 1mm Mesh	\$76	€67	£49.16
185342 2mm Mesh	\$76	€67	£49.16

Spare/Replacement Parts

	\$	€	£
175960 Outer Frame and Handle	\$51	€45	£32.92
193221 Inner Frame	\$5	€5	£3.54
193219 Fixings	\$4	€4	£2.71
175963 Net Bag - 1mm Mesh	\$24	€21	£15.83
185344 Net Bag - 2mm Mesh	\$24	€21	£15.83



Professional Hand Nets - Standard 0.3m Bag

	\$	€	£
175601 1mm Mesh	\$86	€76	£55.83
175603 2mm Mesh	\$86	€76	£55.83
193726 500µm Mesh	\$104	€92	£67.50
193725 250µm Mesh	\$108	€95	£69.99

Professional Hand Nets - Long 0.5m Bag

	\$	€	£
197423 1mm Mesh	\$94	€82	£60.83
193729 2mm Mesh	\$94	€82	£60.83
193728 500µm Mesh	\$114	€101	£74.16
193727 250µm Mesh	\$121	€106	£78.33

Spare/Replacement Parts

	\$	€	£
176010 Outer Frame and Handle	\$61	€54	£39.58
193220 Inner Frame	\$5	€5	£3.54
193219 Net Fixings	\$4	€4	£2.71
175597 Net Bag - 1mm Mesh/0.3m Bag	\$26	€23	£17.08
175599 Net Bag - 2mm Mesh/0.3m Bag	\$26	€23	£17.08
196632 Net Bag - 500µm Mesh/0.3m Bag	\$42	€37	£27.49
200482 Net Bag - 250µm Mesh/0.3m Bag	\$49	€43	£31.67
175961 Net Bag - 1mm Mesh/0.5m Bag	\$33	€29	£21.25
185343 Net Bag - 2mm Mesh/0.5m Bag	\$33	€29	£21.25
196633 Net Bag - 500µm Mesh/0.5m Bag	\$55	€48	£35.42
200483 Net Bag - 250µm Mesh/0.5m Bag	\$60	€53	£39.17

Sectional Hand Net

Hand nets which can be dismantled into sections for convenient storage or transport. These nets are based on the Professional Hand Net design, but with threaded frame and handle sections. The 2-piece net packs down to a length of 0.75m, whilst the 3-piece net is small enough to fit into a rucksack with sections approx 0.5m long. For a longer handle for use in deep rivers or lakes, add the 1.2m End Handle Extension Piece.



Spare/Replacement Parts

	\$	€	£
193732 2-piece - 1mm Mesh/0.3m Bag	\$109	€96	£70.83
193733 2-piece - 2mm Mesh/0.3m Bag	\$109	€96	£70.83
193508 3-piece - 1mm Mesh/0.3m Bag	\$126	€111	£81.66
193509 3-piece - 2mm Mesh/0.3m Bag	\$121	€106	£78.33

	\$	€	£
176012 2-Part Handle and Frame	\$84	€73	£54.16
176013 3-Part Handle and Frame	\$98	€86	£63.75
193247 1.2m End Handle Piece	\$21	€18	£13.33



Pond Net

Perfect for school groups and anyone else that needs a well constructed high quality pond net for pond dipping or light survey work. The net bag is 250mm wide and made from 1mm woven mesh. It has an orange collar that fits onto the net head using industrial velcro. The net head screws on to a telescopic handle so it can be easily removed in transport to prevent damage. The telescopic handle extends from 84 to 135cm. The complete net and frame is light and easy to carry and replacement net bags are available.

	\$	€	£
194764 Pond Net - Complete	\$39	€34	£24.99
196251 Replacement Bag	\$20	€18	£12.92



Specimen Trays

White polypropylene trays for fieldwork and general laboratory use.

Small 35 x 25cm, large 42 x 31cm

	\$	€	£
175967 Small White Tray	\$5	€4	£2.92
193213 Small White Tray x 3	\$13	€11	£8.33
175968 Large White Tray	\$5	€5	£3.32
193214 Large White Tray x 3	\$15	€14	£9.99

LAB SUPPLIES ▶ PAGE 128–129

For Forceps, Sample Bags and Containers, Tubes and Test Tubes see pages 128–129



P128–129 ▶

Drop Nets

Drop Nets are ideal for using off piers and jetties. They are suitable for catching a variety of animals such as prawn, shrimp and crab. Net are available in two sizes: the smaller Crab Drop Net is 29cm in diameter and has a 10m line; this size is ideal for use by children. The Large Drop Net is 56cm in diameter and has a 15m line.



(Prices exclude VAT)

	\$	€	£
218474 Crab Drop Net	\$5	€4	£3.29
218529 Large Drop Net	\$9	€8	£5.79

Heavy Duty Specimen Trays

Heavy duty trays for fieldwork and general laboratory use. Very solid and can be sterilised. Small 43.5 x 28.5cm, medium 48.5 x 33.5cm, large 54.0 x 38.5cm, all 8cm deep.



(Prices exclude VAT)

	\$	€	£
175970 Small Heavy Duty Tray	\$9	€8	£5.82
175971 Medium Heavy Duty Tray	\$12	€10	£7.49
175973 Large Heavy Duty Tray	\$15	€14	£9.99

Chironomid Exuviae Net

The Chironomid Exuviae Net is an extremely lightweight net with a telescopic handle, designed to take surface samples of Chironomid pupal exuviae. The net is 250mm wide, conical in shape and terminates in a screw on filter. It is available with a mesh size of either 250µm or 53µm. The net frame is made from 12.5mm aluminium tube and the bag is attached using industrial velcro. The handle is telescopic and extends to a total length of 3m.

(Prices exclude VAT)

	\$	€	£
202346 Complete Net - 250µm Mesh	\$118	€104	£76.66
202347 Complete Net - 53µm Mesh	\$126	€111	£81.66
202349 Net Frame	\$22	€19	£14.16
202351 Telescopic Handle	\$36	€32	£23.33
202352 Net Bag - 250µm Mesh	\$64	€56	£41.25
202353 Net Bag - 53µm Mesh	\$71	€62	£45.83



Economy Pond Net

BESTSELLER

The economy pond net is available in three sizes and is ideal for educational use. The knotless mesh will not run if holed and will not harm specimens. The net is attached to a plastic handle, making a lightweight net ideal for use by children. The mesh is composed of oblong holes measuring approx 2mm long by 1mm wide.

Small: 15 x 13cm net, 76cm handle

Medium: 20 x 15cm net, 91cm handle

Large: 25 x 17cm net, 91cm handle

(Prices exclude VAT)

	\$	€	£
186959 Pond Net - Small	\$6	€6	£4.16
186960 Pond Net - Medium	\$8	€7	£4.99
186961 Pond Net - Large	\$9	€8	£5.82

Bottom Dragging Net



This 'D' shaped net is designed for collecting specimens from the bottom of a stream or pond. It has a rubbing bar to strengthen and protect the net rim when collecting specimens. The net size is 30 x 15cm and the plastic handle is 91cm long.

(Prices exclude VAT)

	\$	€	£
186962 Bottom Dragging Net	\$9	€8	£5.82

Specimen Sorting Trays



Specimen trays with sorting pockets for general field use or lab work. 6-pocket tray 343 x 244 x 25mm.

(Prices exclude VAT)

	\$	€	£
180109 6-Pocket Specimen Tray	\$9	€8	£6.04

CHIRONomid PUPAL EXUVIAE SAMPLING

Chironomid (non-biting) midges are responsive to a wide range of environmental parameters such as pollution and eutrophication. As such, the abundance and diversity of these midges can be used as a reliable indicator of climate and environmental change.

The species composition and relative abundance of Chironomids can be studied by collecting floating pupal exuviae (skins) and this is now a popular method of monitoring the water quality of lakes and rivers.

SAMPLING NETS

Vertical Plankton Nets

•For vertical sampling of plankton

These Vertical Plankton Nets have a mesh size of 200µm, entrance diameter of 570mm and are provided with a robust PVC cod end and three rope bridle which are attached to the inlet ring. The Professional version also comes with an additional cod end with mesh drain window and 4kg lead lowering weight in the cod end base. Total net lengths are 1.5m and 2.5m for the Student and Professional nets respectively.

Please note: Lowering lines are not included with these nets.

(Prices exclude VAT)

	\$	€	£
198756 Student Vertical Plankton Net	\$399	€350	£258.32
198757 Professional Vertical Plankton Net	\$707	€621	£458.32



©Spike Lewis

Surber Sampler

•For slow-flowing water sampling

The Surber Sampler is suitable for quantitative sampling where the current is less than approximately 10cm/second. The aluminium alloy frame is fitted with nylon side screens to reduce the loss of animals from around the mouth of the net. May be folded flat for storage. Frames and bags are sold separately.

(Prices exclude VAT)

	\$	€	£
184249 Surber Sampler Frame	\$126	€111	£81.67
185947 Surber Net Bag: 53µm mesh	\$98	€86	£63.33
184250 Surber Net Bag: 250µm mesh	\$80	€70	£51.66
185945 Surber Net Bag: 500µm mesh	\$58	€51	£37.49
184252 Surber Net Bag: 1mm mesh	\$53	€46	£34.16



Drift Nets

•For stream or riverbed sampling

This aluminium alloy drift net frame has welded seams and can be used like a standard or weighted frame. Swivel extensions are included to satisfy Health and Safety concerns about spikes - you can hold the frame in place on the river bed with large stones and bricks.



Additional holes have been drilled in the top of the frame so that it is reversible, and a safety line can be attached to a nearby secure point to avoid losing the net downstream in a sudden storm discharge.

Frame, nets and filters are sold separately so that you can make up your drift net to suit your personal requirements. Net bags are available in 1mm or 250µm mesh with open or closed ends. The open-ended bags are designed to take screw-in filters - useful if you don't want to examine your catch immediately.

Frame

(Prices exclude VAT)

	\$	€	£
180085 Drift Net Frame	\$109	€96	£70.83

Bags/Filter: 250µm mesh

(Prices exclude VAT)

	\$	€	£
180087 Net Bag: 250µm mesh, open end	\$104	€92	£67.50
180089 Net Bag: 250µm mesh, closed end	\$82	€72	£53.33
180091 Net Filter: 250µm mesh	\$17	€15	£11.25

Bags/Filter: 1mm mesh

(Prices exclude VAT)

	\$	€	£
180086 Net Bag: 1mm mesh, open end	\$69	€60	£44.58
180088 Net Bag: 1mm mesh, closed end	\$54	€47	£34.99
180090 Net Filter: 1mm mesh	\$16	€14	£10.42



Dredge Nets

•For sampling gravel, silt and mud

The Lightweight Dredge is made from aluminium and weighs approximately 1kg. It is much easier and safer to throw than the heavier dredge but is not made to Environment Agency specifications and is not strong enough for towing over rocky substrates. Additional towing arms are available for this and make it suitable for light towing.

The Professional Dredge is made from zinc-coated steel and conforms to Environment Agency specifications. It is suitable for use in gravel, silt and mud and has a strong steel towing harness. This dredge weighs 5kg and is not recommended for throwing.

Frames and Bags must be purchased separately for each type of dredge. Bags are available with either 1mm or 250µm mesh.

Lightweight Dredge

(Prices exclude VAT)

	\$	€	£
180105 Lightweight Dredge Frame	\$150	€132	£97.50
180107 Lightweight Dredge Net Bag: 250µm	\$90	€79	£58.32
180106 Lightweight Dredge Net Bag: 1mm	\$58	€51	£37.49
180108 Lightweight Dredge Towing Arms	\$62	€54	£39.99

Professional Dredge

(Prices exclude VAT)

	\$	€	£
180102 Professional Dredge Frame	\$301	€264	£195.00
180104 Professional Dredge Net Bag: 250µm	\$85	€75	£55.00
180103 Professional Dredge Net Bag: 1mm	\$66	€58	£42.49



Plankton Nets

•For sampling in static or slow moving water

These nets may be towed behind a boat or thrown out from a jetty or bank and drawn back through the water. The standard net frame is 250mm diameter, and the large frame 300mm. The net is open-ended and comes complete with a removable filter. The filter can be unscrewed in the field for immediate use or dropped into a bottle for future examination. Having an extra filter saves having to examine the catch immediately. Supplied complete with stainless steel frame, towing harness and 7m line. The zooplankton net (250µm mesh) will retain small animals such as crustaceans whilst allowing most algae and protozoa through.

The phytoplankton net (53µm mesh) is suitable for sampling algae and some protozoa.

Zooplankton 250µm mesh

(Prices exclude VAT)

	\$	€	£
184244 Standard Zooplankton Net	\$111	€97	£71.66
184245 Large Zooplankton Net	\$143	€125	£92.50
193217 Zooplankton Net Filter	\$14	€13	£9.38

Phytoplankton 53µm mesh

(Prices exclude VAT)

	\$	€	£
184246 Standard Phytoplankton Net	\$130	€114	£84.17
184247 Large Phytoplankton Net	\$168	€148	£109.17
193218 Phytoplankton Net Filter	\$14	€13	£9.38





Bag Sieves

•Easily folded for carrying and storage

These Bag Sieves consist of a large mesh bag with a draw cord. They are an extremely efficient way of rapidly filtering large volumes of liquids or substrate. The bag is made entirely from mesh and can easily be folded for carrying and storage; this makes them a great alternative to rigid sieves when conducting fieldwork. Three mesh sizes (1mm, 500µm and 250µm) and two sieve diameters (400mm and 300mm) are available.



(Prices exclude VAT)

	\$	€	£
180101 250µm Mesh, 300mm Diameter	\$59	€51	£37.92
180100 500µm Mesh, 300mm Diameter	\$39	€34	£24.99
180099 1mm Mesh, 300mm Diameter	\$35	€31	£22.92
180098 250µm Mesh, 400mm Diameter	\$84	€73	£54.16
180097 500µm Mesh, 400mm Diameter	\$57	€50	£36.66
180096 1mm Mesh, 400mm Diameter	\$40	€35	£25.83

Stackable Rigid Sieves

•Suitable for marine and freshwater use

These general purpose sieves are available in a range of sizes. Made from PVC they have a nylon filtering mesh with a mesh size of 250µm or 1mm. The sieves are stackable which makes them very easy to store and they have a rim at the base which protects the mesh. Sieves are available with a height of 60mm, 90mm, or 120mm.



(Prices exclude VAT)

	\$	€	£
183113 1mm Mesh, 60mm Height	\$56	€49	£36.25
204006 1mm Mesh, 90mm Height	\$58	€51	£37.49
204007 1mm Mesh, 120mm Height	\$69	€61	£44.99
180093 250µm Mesh, 60mm Height	\$56	€49	£36.25
180094 250µm Mesh, 90mm Height	\$58	€51	£37.49
180095 250µm Mesh, 120mm Height	\$71	€62	£45.83

BOTANICAL SURVEY



Standard Grapnel

•For sampling aquatic plants

This lightweight grapnel is ideal for sampling aquatic plants and removing them from the water for identification. The three-pronged brass hook can be thrown easily and is fitted with 15m of rope. Prongs are 10cm long. This grapnel is not suitable for use as an anchor because the prongs are designed to flex to allow the grapnel to be retrieved if snagged.

(Prices exclude VAT)

	\$	€	£
184256 Standard Grapnel	\$43	€38	£27.92

Double Sided Rake Grapnel

•For boat-based vertical sampling

This double sided rake grapnel is made from heavy welded steel with zinc plating. It has provision for the attachment of a screw on sectional handle, a rope or chain and a second lightweight retrieval line. A one metre wooden extendable pole, shackles and very light retrieval line are also included. If a more heavy duty retrieval line is required this can be replaced with a rope or chain.

Please note: This Grapnel is for use by experienced biologists only - to be used with caution.

(Prices exclude VAT)

	\$	€	£
184707 Rake Grapnel	\$117	€103	£75.83



Heavy Duty Grapnel

•Good for dense vegetation

This heavy duty grapnel is ideal for removing debris from waterways and sampling dense or tough aquatic plants. It is made from zinc coated steel and the shaft is 50cm long. There is a strong galvanised shackle attachment to which a throwing line can be fixed. A throwing line is not supplied with this grapnel and you will need to fit your own rope or chain as desired.

Please note: Extreme care should be taken when using the grapnel, particularly in public areas.

(Prices exclude VAT)

	\$	€	£
184257 Heavy Duty Grapnel	\$62	€55	£40.42



FLOWMETERS & WATERPROOF CASES

**Hach FH 950 Handheld Flow Meter**

- Measures depth and velocity
- Velocity graphed real time on screen

The Hach FH 950 is a lightweight, battery powered flow meter designed to provide accurate velocity measurements in rugged field environments. The FH 950's ability to store and download velocity and entered depth information with the meter, minimizes field time. Discharge calculations are automatically calculated by the meter and collected data are downloaded to a PC via the USB connection, eliminating the need for labor intensive manual data transfer. The electromagnetic sensor has no moving parts and never requires maintenance. Turbulent, noisy and low velocities are easily metered. A 6.1m sensor cable is also included.

(Prices exclude VAT) \$ € £
221887 Hach FH 950 Handheld Flow Meter \$6,892 €6,057 £4,466.67

**SPECIAL
ORDE**
SEE PAGE 5

**Stream Flowmeter**

- Allows for manual and auto data logging

The Stream Flowmeter consists of a calibrated impeller on a graduated pole along with a digital meter which displays velocity in units of metres per second or mph. Three stream bed riser rods are also included to allow the water velocity to be recorded at fixed heights above the stream bed. The user can choose between manual and auto logging. The auto logging function means that the flow meter will take a recording at a predetermined interval (e.g. every five minutes). Files are stored in a .csv file that can be downloaded to a PC using the mini USB cable provided.

The Stream Flowmeter is powered by a standard AA battery (included) and comes with a carrying pouch for added protection and a compact case for transporting and storing the whole kit.

(Prices exclude VAT) \$ € £
221185 Stream Flowmeter \$247 €217 £159.99

Silva Dry Bags

- Available in a range of sizes

These dry bags from Silva will keep your belongings dry and free from sand or dust, whatever the conditions. They are very easy to stuff and close - just roll the top edges at least three times and then close the buckle. Bags are available in four different sizes so that you can choose the size which best suits your needs. They also come in prominent colours which makes them easy to find in your backpack. Manufactured from 30 denier cordura fabric which is tough and durable, these dry bags are completely waterproof and flexible down to temperatures of -12°C.

(Prices exclude VAT)

	\$	€	£
210374 6 Litre	\$14	€12	£9.16
210375 12 Litre	\$17	€15	£11.24
210376 24 Litre	\$21	€19	£13.74
210377 36 Litre	\$23	€20	£14.99

**Aquapac Waterproof Cases**

- 100% waterproof and dustproof

The Aquapac range are guaranteed submersible to five metres (15 feet) and also ensure that dust and sand won't get into your belongings. They are made from UV stabilised TPU material so won't be broken down or discoloured by sunlight. Available in a range of sizes to suit all needs, ranging from the small case, which is suitable for GPS units and phones, to the large case, which will fit multiple items such as first aid kits and maps and is a good size for your tablet or iPad.

(Prices exclude VAT)

	\$	€	£
182066 Small PDA Case	\$26	€23	£16.67
206750 Medium PDA Case	\$32	€28	£20.83
206751 Large PDA Case	\$39	€34	£24.99

**Peli Cases**

- Waterproof, dustproof and corrosion proof

These Peli Cases are unbreakable, waterproof, dustproof, chemical resistant and corrosion proof. Tested to IP67 standards, they offer complete protection for your equipment. A foam set is included with each Peli Case for protection against vibration or shock.

Peli Cases are available in three sizes:

Small 1200 (270mm (l) x 246mm (w) x 124mm (d)),
Medium 1450 (406mm (l) x 330mm (w) x 174mm (d))
Large 1560 (560mm (l) x 455mm (w) x 265mm (d)).

Please note: All dimensions given are external measurements.



Peli Case

(Prices exclude VAT)

	\$	€	£
196143 Small Peli Case 1200	\$91	€80	£59.16
196575 Medium Peli Case 1450	\$161	€141	£104.17
196576 Large Peli Case 1560	\$296	€260	£191.67

Standard Flowmeter

- Easy to use with LCD counter

An easy to use flow meter with resettable LCD counter. Ideal for college field trips, student projects, practical river irrigation studies and water resource management. This flow meter comes with an instruction book, maintenance, conversion and calibration charts, and guidance for fieldwork projects. The flow meter works by electronically sensing the revolutions of an impeller. The number of revolutions per unit of time can be translated into stream flow velocity using a conversion chart. The impeller sticks have been accurately calibrated in a flume tank. The flow meter is powered by longlife batteries (included) and is supplied in a corrugated plastic case.



(Prices exclude VAT)

	\$	€	£
193401 Standard Flowmeter	\$217	€191	£140.83

Speedtech Depthmate**SM-5 Portable****Depth Sounder****• Measure water depth**

The Depthmate SM-5 measures

distances through water, either directly or through the bottom of a boat. It will give an accurate digital reading up to a distance of about 80m.

Use the sounder in conjunction with a GPS to produce rough topographical maps of lakes and shorelines. Depthmate is waterproof to a depth of 50m. Readings are accurate from 0.6m to 79m, measured in metres or feet to the nearest tenth. The 9V battery will power 500 ten-second readings.

(Prices exclude VAT)

193233 SM-5 Portable Depth Sounder

\$238 €209 £154.17

BEST SELLER**Small Aquascope Underwater Viewer (Bathyscope)****• Convenient size for transporting and storing**

This Aquascope is smaller and lighter than the Large Aquascope and so is more convenient for transporting and storing. It works in the same way by eliminating water surface glare and internal reflection giving you a great view of the world beneath the surface of the water. Perfect for checking boat moorings and pots this is also a valuable addition to your aquatic survey field kit.

(Prices exclude VAT)

202609 Small Aquascope

\$35 €30 £22.49

**Mudders****• For walking on mud and marshland**

Mudders overcome the two difficulties of mud travel - sinking and suction - by copying nature. The Great Blue Heron inspired the invention of Mudders with its ability to widen its foot when it steps down and contract it as the foot is lifting. Mudders work in the same manner.



The winged design effectively quadruples the footprint surface area (to approximately 1,000 cm²) on soft surfaces such as mud, snow, or sand, preventing sinking, whilst remaining closed on firm ground. Mudders are also easy to use underwater as they fit right over boots or waders; perfect for disembarking boats in unknown areas of marsh or wetlands.

(Prices exclude VAT)

193459 Mudders

\$199 €175 £129.16

Secchi Disk**• Measures water transparency and turbidity**

The Secchi disk is a circular disk which is used to measure the transparency or turbidity of water. The disk is mounted on a line and the depth at which the pattern on the disk is no longer visible is taken as a standard measure of water transparency. This depth is known as the Secchi depth. This Secchi Disk consists of a braided, stretch resistant line marked at half and full metre intervals up to 20 metres, and a weighted, 20cm diameter black and white disk that sinks parallel to the water's surface. For best results, use from the leeward side of a boat or dock between mid-morning and mid-afternoon.



(Prices exclude VAT)

194883 Secchi Disk

\$90 €79 £58.33

**Large Aquascope Underwater Viewer (Bathyscope)****• Provides a clear underwater view from a boat or dry land**

The Aquascope Underwater Viewer is a great way of viewing the underwater world from the safety and comfort of a boat or dry land. It works by eliminating both water surface glare and internal reflection, thereby allowing underwater viewing as far as water clarity and light will permit. Use the Aquascope to check pots, observe reefs, conduct survey work and view Secchi Disks. The Large Aquascope comes in three pieces, making it simple to transport, and easily fits together when you reach your viewing location.

(Prices exclude VAT)

199105 Large Aquascope

\$62 €54 £39.99

**Peli 4300 Nemo Underwater Lamp****• Submersible underwater lamp for diving**

The Nemo 4300 underwater lamp is the smallest and brightest eight C-cell dive light in the world. The maximum light output is 276 lumens and the maximum beam range is 143m. Battery life is 6 hours. Powered by 8 x C cell batteries (not included). A spare bulb is included and the lamp comes with a lifetime guarantee.

(Prices exclude VAT)

199534 Peli 4300 Nemo

\$102 €89 £65.82

**Peli 2410 Nemo Underwater Torch****• Rugged and waterproof**

This compact, lightweight torch is designed for use underwater. The maximum light output is 72 lumens and the maximum beam range is 102m. Battery life is 7.15 hours. Powered by 4 x AA batteries (included) and comes with a lifetime guarantee.

(Prices exclude VAT)

199535 Peli 2410 Nemo

\$105 €92 £67.92



WADERS & PPE



Snowbee Float Tube Kit

- Latest "V-boat" design for increased stability

The Snowbee Float Tube Kit provides a stable and robust survey platform. It incorporates the latest float tube design to reduce resistance allowing for an easier passage through the water whilst keeping the user stable. The float tube has a number of storage areas including two zipped pockets and a backrest storage pocket. The kit includes flippers, a dual action pump and a bag for transport and storage.

Please Note: Maximum recommended user size 18 stone (115kg).

(Prices exclude VAT)

216329 Snowbee Float Tube Kit \$256 €225 £165.83

\$ € £

Snowbee Rockhopper Wader-Grips

- Provides extra grip on slippery surfaces

Rockhopper Wader-Grips can be used with any waders or wading boots and will provide extra grip on slippery surfaces. They are ideal for walking on algae or seaweed covered rocks, slippery banks or ramps and even on ice. The grips are made from thermoplastic rubber which is extremely elastic, allowing you to stretch them over the soles of your boots. It also means that a single pair will fit a wide range of boot sizes. Available in Large or Extra-Large. The large will fit all waders and boots up to size 11. The extra-large size are suitable for waders and boots from size 11–14.

(Prices exclude VAT)

221754 Wader-Grips: Large \$13 €11 £8.33

\$ € £

221755 Wader-Grips: X-Large \$13 €11 £8.33



Neoprene Repair Kit

- Suitable for all neoprene products

This Neoprene Repair Kit is perfect for fixing all neoprene products and is ideal for repairing rips and tears in neoprene waders. Each kit contains five neoprene discs in three different sizes, a tube of Black-Witch Neoprene repair glue and full instructions.

(Prices exclude VAT)

216326 Neoprene Repair Kit \$10 €9 £6.66



Float Tube Flippers

- Designed to be worn over waders

Tough, lightweight pair of flippers designed for use with Float Tubes. The large flexible fins allow for effortless propulsion through the water. The heel is extra wide and there are three quick-release, adjustable webbing straps which allow them to be worn over wading boots.

One size fits all.

(Prices exclude VAT)

216411 Float Tube Flippers

\$32 €28 £20.79



Snowbee Lightweight Neoprene Gloves

- Lightweight and warm

These Snowbee Lightweight Neoprene Gloves have a nylon jersey knit palm with rubberised dots to provide extra grip whilst keeping your hands warm. The thin palm material allows the gloves to be worn without compromising dexterity, whilst the neoprene back provides extra warmth when needed.

The tips of the thumb and forefinger are left exposed making these perfect for wearing when carrying out fieldwork or using a camera, whilst still keeping your hands warm in wet or cold conditions.

(Prices exclude VAT)

	\$	€	£
216318 Small	\$14	€12	£9.16
216319 Medium	\$14	€12	£9.16
216320 Large	\$14	€12	£9.16
216321 Extra Large	\$14	€12	£9.16

216321 Extra Large

\$14 €12 £9.16

Automatic Gas Lifejacket

- Inflates automatically and can be topped up manually

This automatic lifejacket is designed for inland and coastal use. It is structured so that the weight of the jacket is distributed over the shoulders which reduces strain on the neck. Together with the intelligent placement of straps this makes it very comfortable to wear. Fastens using ABS buckles which are strong and light. Automatic inflation occurs within three seconds of a person hitting the water and the jacket provides 150 Newtons of buoyancy which is sufficient to turn an unconscious person face up. Air inside the jacket can also be topped up manually via a tube. One size available which is suitable for person weighing 40kg and above. Maximum chest size 60". Supplied with a 33g CO₂ cylinder and certified to European CE Standard EN 396.



(Prices exclude VAT)

222104 Automatic Gas Lifejacket \$116 €102 £74.99



Rubber Boot and Wader Repair Kit

- Suitable for all types of waders and boots

A handy Rubber Boot and Wader Repair Kit. The tough, self adhesive, clear PVC patches are a quick and easy to use and effective even when wet. The kit also contains a tube Stormsure adhesive and sealant which is highly effective for repairing waders and boots. Suitable for use with PVC and nylon waders.

(Prices exclude VAT)

216325 Repair Kit \$7 €6 £4.58



Snowbee PVC Thigh Waders

•Great value PVC waders with added elasticity for ease of movement

These thigh waders have been manufactured using 'Hi-Elastic' PVC material to provide plenty of flexibility for ease of movement. The material is lightweight and the waders are fitted with a cleated sole PVC boot to improve grip on slippery surfaces. The waders have a strap to attach to belts or belt loops. They are perfect for shallow wading in ponds or rivers and are available in sizes 3 to 12.



(Prices exclude VAT) \$ 46 € 41 £ 29.99

Snowbee Nylon Thigh Waders

•Double-stitched and heat-sealed seams for added strength

These tough yet lightweight nylon thigh waders are manufactured with a tightly woven 210 denier nylon outer to resist thorns and abrasion. An inner PVC coating also ensures that they remain completely watertight. The seams are double-stitched and heat-sealed on the inside for added strength and they have adjustable elasticated straps to attach to a belt or belt loops. They have an integral high quality PVC boot with a cleated rubber sole to provide grip in slippery conditions. Available in UK sizes 5 to 15.



(Prices exclude VAT) \$ 63 € 55 £ 40.83

Plastic Bucket with Plastic Handle

•Small volume buckets for sampling or pitfall traps

These buckets are strong and durable and have conveniently small volumes making them equally suitable for rockpool specimens, pitfall traps or general storage. They have a tightly fitting white lid and plastic handle and are available in two sizes: 2.5 litre and 5 litre.

(Prices exclude VAT) \$ 3 £ 2 £ 1.66
197160 2.5 litre
197159 5 litre £ 2.04



Snowbee PVC Chest Waders

•With cleated sole boot and adjustable shoulder straps

These chest waders are lightweight and have adjustable nylon braces which fit comfortably over the shoulder to hold them securely in place. They have a cleated sole PVC boot which provides good grip when walking on slippery surface and the 'Hi-Elastic' PVC material provides flexibility for comfortable movement. They are ideal for working in deeper ponds and rivers. Available in UK sizes 3 to 12.

(Prices exclude VAT) \$ 57 £ 50 £ 36.66



Snowbee Nylon Chest Waders

•Adjustable braces and elasticated rear section for comfort

These waders are manufactured with a tightly woven 210 denier nylon and have an inner PVC coating for added waterproofing. Seams are double-stitched and heat-sealed on the inside. Quick release buckles allow the waders to be rolled down to the waist with the straps clipped in front to form a belt. Adjustable webbing braces with an elasticated rear section ensure a high level of comfort and an elasticated drawstring around the chest with side adjuster straps ensure a snug fit. These chest waders have an 'American Style' full cut, with seams up the outside of the legs and single front to back seam to avoid chafing. They have an integral high quality PVC boot with a combination felt and rubber sole for maximum grip on riverbeds. Available in UK sizes 5 to 14.

(Prices exclude VAT) \$ 93 £ 81 £ 60.00



Plastic Bucket with Metal Handle

•Strong multi-purpose bucket

This plastic bucket is strong and durable and comes with a lid. The handle is made from metal and has a plastic grip. Ideal for aquatic sampling as well as for pitfall traps. This bucket is available in two sizes: 10.3 litre and 20 litre. The smaller size is available in white and the larger size in either blue or white.

(Prices exclude VAT) \$ 6 £ 5 £ 3.75
197162 10.3 litre White
197166 20 litre White
198538 20 litre Blue £ 5.79



Blue Open Top Keg

•Heavy duty with a secure lid

This open top keg is extremely heavy duty and has excellent long-term durability. Opaque sides and lid make it a great choice for the storage of light sensitive samples. Two side handles make transportation easy and the lid fastens with a ring and latch closure, meaning that contents are secure at all times. The keg is available in two sizes: 30 litre and 60 litre.



(Prices exclude VAT) \$ 32 £ 28 £ 20.83
197146 30 litre
197147 60 litre £ 58 £ 51 £ 37.49



Bulk Container on Pallet

•Transport and store high volume water samples

This natural plastic bulk container is strong and durable and provides excellent storage and transportation of large volume aquatic samples. It has a volume of 1000 litres and is supplied with a plastic pallet for ease of transportation.

(Prices exclude VAT) \$ 509 £ 447 £ 329.96
197145 Bulk Container

FISH SAMPLING

ELECTROFISHING

Electric fishing, or Electrofishing, has been proven to be a highly efficient technique for monitoring fish populations in rivers and lakes, as well as performing rescue and relocation work of fish stocks.

Electrofishing is the process of catching fish by creating an electrical field through water around an anode (on a hand held pole) and cathode (trailing in the water behind the operator). This electric field develops a voltage along the length of the fish exposed to it, such that 'galvanotaxis' stimulates their nervous system and they are forced to swim towards the anode (source of the field).

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At a point approaching the anode, the fish enters the hold-zone where the field is of sufficient strength to temporarily immobilise them and thus aid in their capture.

Responsible electrofishing should result in no permanent harm to fish and they return to their natural state soon after stunning.



E-Fish Electrofishing 500W Backpack System

The 500 Watt Backpack System is a complete electrofishing solution in one 'easy to transport' box. Compact, portable and rugged, the system has been engineered with the user in mind: from quick change battery modules, a comfortable and ergonomic harness and anode grip, smart tilt and safety sensors and a simple yet intuitive control interface.

The Backpack System comes with a printed user manual and laminated quick start guide and contains the following components: 500W backpack, anode pole and ring, cathode, battery pack (7.5Ah or 3.3Ah allowing respectively 60 and 30 minutes of continuous fishing at 150W), battery charger and transit case. Replacement /spare batteries can also be purchased separately.

To minimise stress on wildlife during the fishing process, the backpack has been designed to meet the latest best practice electrofishing guidelines, and utilises high-speed microprocessor technology to digitally synthesise the output waveforms while closely monitoring delivered power and voltage.

SPECIAL ORDER
SEE PAGE 5

For safety, the backpack uses state of the art accelerometer technology to constantly measure the tilt angle of the backpack in all directions. When ducking under branches, vegetation or obstacles at the side of rivers, the backpack will momentarily disable fishing until the operator straightens up, allowing maximum mobility with minimum hassle, but should the operator have stumbled and fallen, the backpack will then enter into its 'emergency' state and prevent further operation until fully reset.

'Quick change' battery packs allow the user to swap power sources without the need to open any housings or re-route cabling. Two sizes (and weights) of battery are available to suit every operator.

	\$	€	£
196410 500W Backpack System: 7.5Ah	\$8,487	€7,458	£5,500.00
199528 500W Backpack System: 3.3Ah	\$8,487	€7,458	£5,500.00
196416 Spare Battery: 7.5Ah	\$540	€475	£350.00
196417 Spare Battery: 3.3Ah	\$540	€475	£350.00
196418 Battery Charger	\$231	€203	£150.00

Lightweight Electrofishing Net

This lightweight net is designed to collect stunned fish during electrofishing surveys. The net head is D-shaped and measures



350mm in width, with a depth of 500mm. The soft fry mesh (6mm) minimises abrasion to the fish and is attached to the frame with strong Velcro, allowing it to be easily removed for cleaning or replacement. The handle measures 1.2m in length and is constructed from lightweight aluminium covered with an insulating grip and a foam end cap. The head is detachable for easy transportation. This net has a total weight of just 750g. Replacement net bags are also available.

	\$	€	£
202751 Lightweight Electrofishing Net	\$132	€116	£85.83
202754 Replacement Net Bag	\$32	€28	£20.42

Heavy Duty Electrofishing Net

This robust and sturdy net is designed to collect stunned fish during electrofishing surveys. The head is pentagonal and measures 350mm at the widest point. The net bag is made from soft fry mesh (6mm) and is 500mm deep. Attached to the frame with Velcro it can easily be removed for washing or replacement. The aluminium handle is 1m in length and is covered with tough insulating grip which ensures that the net won't slip in your hands, even when wet. Replacement net bags are also available.

	\$	€	£
202745 Heavy Duty Net	\$152	€133	£98.33
202747 Replacement Net Bag	\$46	€41	£30.00



Fish Measure

This fish measure is an easy way of gauging and recording fish length and is suitable for fish of up to 45cm. It is made from number plate quality shatterproof A.B.S.

Dimensions: 480 x 70mm.

	\$	€	£
204914 Fish Measure	\$22	€19	£14.16



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Skanemjarden Crayfish Trap

•Effective trap for larger crayfish

A Swedish trap which is lightweight and stackable. Hinged in the middle, the trap splits in half to access the catch. This also allows many traps to be stacked up together to save on space. The clip to fasten the two sides together whilst set can also be used to attach a line. Plastic bait box included. This trap may need weighting down in faster flowing water.

When assembled the trap measures 560 x 300 x 230mm and has a mesh size of 15 x 30mm. The entrance hole has a diameter of 90mm making it particularly suitable for larger crayfish. It has a volume of 20 litres.

Replacement bait boxes can be purchased for this trap.

(Prices exclude VAT)

193216 Skanemjarden Crayfish Trap

BESTSELLER

\$ 19 € 17 £ 12.46

193246 Replacement Bait Box

\$ 1 € 1 £ 0.81

CRAYFISH IN THE UK

The white-clawed crayfish, *Austropotamobius pallipes*, is the UK's only native species of crayfish. It likes alkaline water with limited sediment and pollution and lives in habitats such as rivers, streams, canals or quarries with plenty of shelter from rocks or plants. The UK is also home to several species of non-native crayfish, including the extremely invasive American red signal crayfish.

Native white-clawed crayfish are a protected species and permission is required from the Environment Agency to trap them in order to monitor their populations. It is illegal to handle them without a licence from Natural England or the Countryside Council for Wales. It is permissible to fish for non-native crayfish in certain areas of the country with written authorisation from the Environment Agency but traps will need to be marked with identity tags and catch details will need to be returned.

There are strict rules about the size and design of crayfish trap that can be used in the UK. This is primarily to protect other wildlife such as water voles and otters which can get caught in traps if care is not taken. The trap entrance should be less than 95mm across and holes in the mesh should be no more than 30mm across. Overall dimensions of the trap should be less than 600mm in length and 350mm in width/diameter.



Funnel Crayfish Trap

•Tough crayfish trap for repeated use

This robust, all-plastic crayfish trap is very easy to handle and quick to set and re-bait. The double entry design and large mesh size ensure that larger species are caught. The crayfish trap comes with a bait box included. Available as a single trap or in a pack of 20. Length 500mm, Diameter 200mm, Entrance Diameter 50mm, Mesh Size 30 x 20mm

(Prices exclude VAT)

203483 Single

\$ 31 € 27 £ 20.00

203484 Pack of 20

\$ 591 € 520 £ 383.33



Circular Crayfish Trap Kit

•Suitable for British native crayfish

Designed for the British native white-clawed crayfish, this simple-to-assemble trap provides a quick and easy method of crayfish monitoring. Made from 4mm green plastic mesh, the traps are durable and are supplied with a bait bag and polypropylene line for tethering.

Not recommended for larger species such as the introduced Signal Crayfish. Length 500mm, Diameter 150mm, Entrance Diameter 50mm, Mesh Size 5 x 5mm

(Prices exclude VAT)

191334 Single

\$ 13 € 12 £ 8.54

180115 Pack of 5

\$ 66 € 58 £ 42.71

180116 Pack of 10

\$ 113 € 99 £ 72.92



Refuge Crayfish Trap

•Suitable for areas with water voles and otters

The Hutchins refuge trap can be used in areas where water voles and otters are present. A very simple structure with no bait, the trap can be left in place for some time. It works on the preference of crayfish for tunnels and, with the variety of tunnel sizes offered, a variety of sizes are captured.

(Prices exclude VAT)

184259 Refuge Crayfish Trap

\$ 89 € 78 £ 57.50



Johnson Universal pH Indicator Paper

pH test paper provides a quick and economical method of measuring the pH of a solution. Simply dip the test paper into the solution and compare the colour with the chart. This paper will measure the full range of pH from 1 to 14. A colour chart in steps of one pH is included.

Paper is supplied on a continuous reel in a plastic dispenser. Simply tear off the amount required as you need it. Contains five metres of paper and measures 6mm in width.

(Prices exclude VAT) \$ € £
193236 pH Indicator Paper \$12 €10 £7.49

Hanna Dissolved Oxygen Meter

A water resistant, microprocessor-based, dissolved oxygen meter with automatic calibration and temperature compensation. Measurements can be displayed in parts per million (mg/L) or % saturation. This meter also allows manual compensation of altitude and salinity values. The meter can be powered with batteries or a 12V DC adapter. Supplied complete with probe with 4m cable and protective cap, two spare membranes, electrolyte solution (30ml), batteries, hard carrying case and instructions.



(Prices exclude VAT) \$ € £
180233 Dissolved Oxygen Meter \$806 €708 £522.08
180234 Electrolyte Solution \$32 €28 £20.42

Champ Pocket Sized pH Meter

The Champ is perfect for quick pH measurements, simply remove the black protective cap, switch on and dip into the liquid you want to test. The pH value can then be easily read off the LCD digital display. The Champ is calibrated using a pH buffer solution (available in 500ml bottles or 20ml sachets) and the electrode can also be conditioned by placing it for a couple of hours in storage solution. The electrode is maintained in good condition between uses by placing a few drops of pH7 buffer or storage solution in the cap before replacing.

(Prices exclude VAT) \$ € £
180246 Champ pH Meter \$72 €63 £46.66
180239 pH 7 Buffer Sol. 500ml \$27 €24 £17.49
193227 pH 7 Buffer Sol. 25 x 20ml \$40 €35 £25.82
180242 Storage Sol. 500ml \$21 €18 £13.29

Hanna Pocket Combination Meter

This user-friendly pocket meter will measure temperature, pH, total dissolved solids (TDS) and conductivity. The dual level display shows the pH, conductivity or TDS reading together with the temperature of the solution. The meter is fully waterproof and will float in water if accidentally dropped. Automatic compensation for temperature.

Available in a Low Range or High Range models - The High Range model should be chosen if you are expecting higher values of TDS or conductivity.

To use this meter you will also need a calibration solution for pH and conductivity and electrode storage solution.

(Prices exclude VAT) \$ € £
180227 Pocket Meter: Low Range \$213 €188 £138.29
180228 Pocket Meter: High Range \$210 €184 £135.83
180241 pH 4 and 7 Buffer Solution: 10 x 20ml \$22 €19 £14.16
180229 1413µS Sol. 25 x 20ml \$39 €34 £25.42
180231 1382ppm Sol. 25 x 20ml \$39 €34 £25.42
180242 Storage Sol. 500ml \$21 €18 £13.29
180243 Cleaning Sol. 500ml \$30 €26 £19.16



Hanna Pocket pHep Meter

An affordable pH meter which makes it easy to measure pH. Temperature is displayed simultaneously and is automatically compensated for. Fully sealed against water and dust and floats if accidentally dropped into liquid. The electrode is replaceable.

Supplied with protective cap, electrode removal tool, batteries and instructions. To use this meter you will also need a pH buffer solution for calibration and storage solution for the electrode. The pHep4 has a resolution of 0.1 whilst the pHep5 has a resolution of 0.01.

(Prices exclude VAT) \$ € £
180244 Hanna pHep4 pH Meter \$136 €120 £88.29
180245 Hanna pHep5 pH Meter \$148 €130 £95.83
193235 Replacement Electrode \$86 €75 £55.42
193238 1.5V Batteries: 6-pack \$26 €23 £17.08



Hanna Pocket Checkers

With the Hanna Pocket Checkers you can check for a variety of elements at the touch of a button. These great value checkers provide invaluable data regarding water quality and safety and are small enough to carry when working in the field. Available to measure Chlorine (Free and Total), Iodine, Iron, Phosphate and Phosphorus.



Hanna Pocket Checkers

(Prices exclude VAT) \$ € £
197218 Chlorine (Free) \$82 €72 £53.32
197220 Chlorine (Total) \$82 €72 £53.32
197221 Iodine \$82 €72 £53.32
197223 Iron \$82 €72 £53.32
197228 Phosphate \$82 €72 £53.32
197229 Phosphorus \$82 €72 £53.32

Pocket Checker Reagents

(Prices exclude VAT) \$ € £
197773 Chlorine (Free) \$16 €14 £10.42
197775 Chlorine (Total) \$14 €12 £8.75
197777 Iodine \$14 €12 £8.75
197779 Iron \$12 €11 £7.92
197733 Phosphate \$14 €12 £8.75
197781 Phosphorus \$14 €12 £8.75



Hanna Water Test Kits

These popular kits include everything you need for a specific application. A rugged carry case helps keep parts organised and secure, whilst making it easy to carry them around in the field.

User friendly and cost effective, each test is designed to maximise both performance and safety. The kit is arranged in a logical way to reduce the confusion that non-technical users often experience when using combination kits. The kit includes all the accessories and reagents required to perform over 100 tests of each parameter.

Individual kits measure the following parameters:

- Environmental Monitoring: Acidity, alkalinity, carbon dioxide, dissolved oxygen, hardness and pH.
- Water Quality: Alkalinity, chloride, hardness, iron, pH and sulphite.
- Aquaculture: Salinity, alkalinity, dissolved oxygen, carbon dioxide, pH and hardness.

	\$	€	£
180225 Monitoring Test Kit	\$302	€265	£195.42
180226 Water Quality Test Kit	\$374	€329	£242.49
180224 Aquaculture Test Kit	\$417	€367	£270.42



Refractometer for Salinity Measurements

This general purpose refractometer can be used to measure the content of dissolved salt in an aqueous solution. This is an optical instrument and works on the principle of light refraction - when light is passed through the sample the refracted angle is shown on a scale which is then used to determine the amount of solids dissolved in the liquid.

This model also incorporates automatic temperature compensation (ATC) making it ideal for use in situations when the temperature of samples may vary. Specific gravity is also displayed. This refractometer has a range of 0 to 760 ppt with a resolution of 7ppt.

A padded carrying case is included.

	\$	€	£
203482 Refractometer	\$238	€209	£154.16



Digital Refractometer for Salinity Measurements

The Digital Refractometer is a rugged, portable, water resistant device that utilises the measurement of the refractive index to determine the salinity of natural and artificial seawater, or brackish intermediates.

The unit eliminates the uncertainty associated with mechanical refractometers and is rugged and portable enough to be used at home, in the lab or out in the field. It is quick and easy to use and can be calibrated with distilled or deionised water. Temperature and low power messages are also displayed.

	\$	€	£
197245 Digital Refractometer	\$302	€266	£195.83

(Prices exclude VAT)



Hanna Multi-Parameter Bench Photometer

This Multi-Parameter Photometer measures 45 water quality parameters. The system is incredibly user-friendly with method selections and set-up modes clearly displayed on the LCD screen. The measuring procedure for each method is also displayed on the LCD taking the user through the process, step-by-step. Automatic conversion of readings to other chemical forms eliminates confusion and contributes to overall ease of use. USB connection allows logged data (up to 200 data points) to be transferred quickly and easily, and the unit can run on a 12V DC power adapter (included) or on rechargeable batteries for use in the field.

Please note: Reagents are not supplied with this photometer. Please see the website for further details.

	\$	€	£
197230 Bench Photometer	\$1,285	€1,129	£832.49

Diffuse Pollution: An Introduction to the Problems and Solutions

Neil Campbell (2005)

This concise introductory guide gives great insight and examines potential management solutions using case studies.



149473 HBK	\$219	€193	£142.20
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Tinytag Aquatic 2

Designed for long-term immersion, these units are waterproof to a depth of 500m, making them ideal for environmental monitoring in rivers and oceans. The high visibility yellow case has an attachment button that can be used with cable ties to secure the logger in a location. 32,000 readings, user-replaceable battery, magnetic trigger start. All loggers require a Tinytag Inductive Pad for downloading data, software and Gemini Trigger Start Magnet, purchased separately (see Tinytag software & accessories).

(Prices exclude VAT)

Temperature (-40°C to 70°C)	\$	€	£
193163 TG-4100 - Aquatic	\$162	€142	£105.00
Temperature (-30°C to 105°C)			
193164 TG-4105 - Splash	\$224	€197	£145.00



Hanna Multi-Parameter Water Quality Meter

A professional portable multi-parameter water quality meter that monitors up to 13 different water quality parameters (8 measured, 5 calculated).

The meter has a backlit LCD that allows full configuration of each parameter measured, units and language selection as well as on-screen graphing. Each parameter is fully supported by the on-screen context sensitive help, both in the calibration mode and during measurement.

Designed for outdoor environments, the meter is impact resistant and waterproof to IP67 standards (30 minute immersion under 1m of water). The multi-sensor probe can be left underwater (IP68 standard). For field calibration, the Quick Calibration function allows the user to standardise pH, conductivity and oxygen with one solution.

This product is supplied with the water quality meter, probe, spare pH and ORP module, 500ml quick calibration solution, maintenance kit, beaker, software, USB cable, power adapter and instruction manual.

	\$	€	£
180247 Water Quality Meter	\$3,514	€3,088	£2,277.49
180255 Quick Calibration Solution: 500ml	\$58	€51	£37.49

MARINE ECOLOGY BOOKS

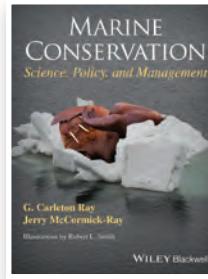
MARINE ECOLOGY

Marine Conservation: Science, Policy and Management

G Carleton Ray *et al.* (2013)

This textbook of marine conservation covers major advances in marine ecosystem understanding and provides a guide for conservation practice. It includes details of seven international case studies of coastal and marine conservation projects and provides a framework for the critical thinking required for successful ecosystem-based conservation in the 21st century.

207366 PBK \$54 €47 £34.99
205611 HBK \$139 €122 £89.99

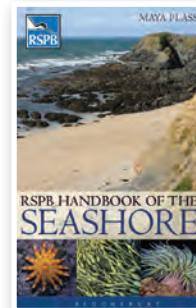


RSPB Handbook of the Seashore

Maya Plass (2013)

Featuring over 200 species accounts, this RSPB Handbook will help you to easily identify and learn about the life cycles and anatomy of the species you discover. It also features useful sections on the tidal cycle, conservation and climate change concerns and who to call should you come across something unexpected on your next beach visit.

204451 PBK \$20 €18 £12.99



MARINE ANIMALS

Britain's Sea Mammals

Robert Still *et al.* (2012)

Britain's Sea Mammals is the essential field guide to all the sea mammals found in coastal Britain. Features more than 100 stunning photographs and detailed illustrations of 34 species of sea mammals, paying special attention to the 14 species most readily seen.

198786 PBK \$20 €18 £12.95



Coastal Plankton: Photo Guide for European Seas

Otto Larink and Wilfried Westheide (2011)

This book is an introduction to the most important and most common taxa present in the plankton, and it allows the identification of numerous common species.

189321 PBK \$66 €58 £42.50



Seaweeds of the British Isles

This series of books covers all the British and the majority of northern Atlantic seaweeds. Each species is described and illustrated and notes on the ecology and distribution are given. Keys to aid identification are also included.

1.1: Rhodophyta. Introduction, Nemaliales, Gigartinales (2011) 191512 PBK \$62 €54 £39.99
1.2a: Rhodophyta. Cryptonemiales (sensu stricto), Palmariales, Rhodymeniales (2011) 194752 PBK \$54 €47 £34.99
1.2b: Corallinales, Hildenbrandiales (2011) 194753 PBK \$62 €54 £39.99
1.3a: Corallinales (2013) 208906 PBK \$85 €75 £54.99

1.3b: Bangiophyidae (2003) 141187 PBK \$54 €47 £34.99
2: Chlorophyta (2013) 211561 PBK \$62 €54 £39.99
3.1: Fucophyceae (Phaeophyceae) (2011) 194754 PBK \$69 €61 £44.99
4: Tribophyceae (Xanthophyceae) (2013) 211562 PBK \$15 €14 £9.99

Seasearch Guides

Chris Wood *et al.* (2012)



Seasearch guides are essential companions for divers, snorkelers, rockpoolers and students who want to identify and know more about the organisms that they find. These books are produced as part of the Seasearch project which offers training in the identification of marine life and habitats and encourages recording by volunteers. Three volumes are available, detailing the Sea Anemones and Corals, Seaweeds and Bryozoans and Hydroids of Britain and Ireland.

199325 Guide to Bryozoans and Hydroids \$29 €25 £18.50
206400 Guide to Sea Anemones and Corals \$23 €20 £14.99
206401 Guide to Seaweeds \$26 €23 £16.95

Great British Marine Animals

Paul Naylor (2011)



Great British Marine Animals uses high quality underwater photographs to aid identification of a wide range of common marine animals and to give an insight into their lives. This book beautifully illustrates the diversity of animals that live in British seas and is ideal for anyone who loves the sea and its wildlife.

190230 PBK \$25 €22 £15.99

Handbook of the Mammals of the World, Volume 4: Sea Mammals

Don E Wilson *et al.* (2014)



Marine mammals have provided mysterious companionship to humans at sea for hundreds of years. These magical creatures have developed a completely different set of adaptations from their terrestrial ancestors and relatives. Volume 4 of the HMW series provides complete accounts of all species and families and are illustrated with colour photographs. The text contains the latest up-to-date information on all families of sea mammals.

174996 HBK \$162 €142 £105.00

FRESHWATER ECOLOGY

Rivers

Nigel Holmes and Paul Raven (2014)



Rivers includes detailed information about each of the huge variety of river types to be found in Britain along with their flora and fauna. Maintenance and management issues are also covered making this essential reading for both the serious conservationist and interested layman alike.

206225 HBK

\$50 €44 £32.50

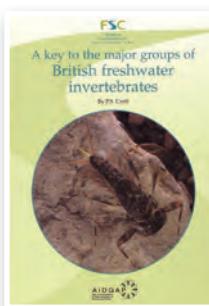
FRESHWATER ANIMALS

A Key to the Major Groups of British Invertebrates

PS Croft (2012)

This introductory guide will enable beginners to identify living animals encountered during the course of their field studies. Behavioural characteristics are given particular emphasis and full morphological descriptions are also included. The key covers the invertebrates found in all types of freshwater - pools, lakes, streams and rivers.

2335 PBK \$14 €12 £8.99

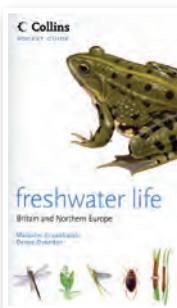


Freshwater Life

Malcolm Greenhalgh and Denys Ovenden (2007)

A beautifully illustrated guide to the wide variety of species found in rivers, streams, lakes and ponds in Britain and Europe. An easy-to-use key guides the user quickly to the correct species without using complex terminology. Each species is illustrated in colour with text adjacent for quick identification.

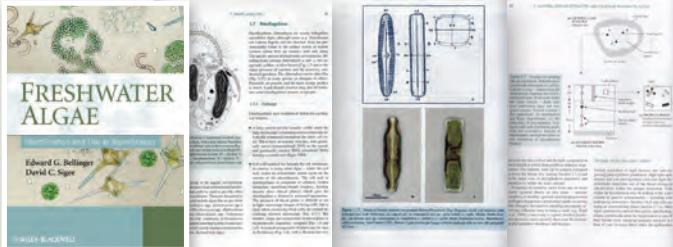
158058 PBK \$31 €27 £19.99



FRESHWATER PLANTS

Freshwater Algae

Edward Bellinger and David Sige (2010)



Freshwater Algae: Identification and Use as Bioindicators provides a comprehensive guide to temperate freshwater algae, with additional information on key species in relation to environmental characteristics and implications for aquatic management.

184121 HBK

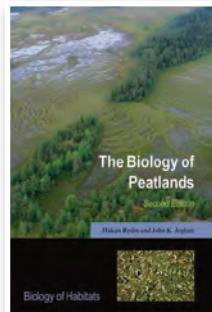
\$108 €95 £69.99

The Biology of Peatlands

Håkan Rydin and John K Jeglum (2013)

The Biology of Peatlands looks at the main peatland types (marsh, swamp, fen and bog) together with the range of biota present in each. It also discusses peatland development and the interactions between environment and organisms. This fully revised edition includes additional information on microbial processes and the responses of peatlands to climate change.

206081 PBK	\$56	€49	£35.99
206080 HBK	\$116	€102	£74.99

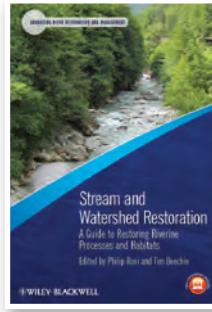


Stream and Watershed Restoration: A Guide to Restoring Riverine Processes and Habitats

Ed. by Philip Roni and Tim Beechie (2012)

Stream and Watershed Restoration provides a comprehensive resource for developing successful stream and watershed restoration plans and projects. It provides a systematic and adaptable approach for planning, prioritising, implementing, and evaluating restoration at the regional, watershed, reach and project level.

199082 PBK	\$69	€61	£44.99
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Britain's Freshwater Fishes

Mark Everard (2013)



Britain's Freshwater Fishes covers more than 50 species of freshwater and brackish fish found in these waters. This beautifully illustrated guide features in-the-hand and in-the-water photographs throughout, and accessible and informative overviews of topics such as fish biology and life cycles.

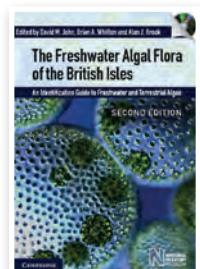
203576 PBK	\$28	€24	£17.95
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The Freshwater Algal Flora of the British Isles

Ed. by David M John et al. (2011)

An indispensable guide to the freshwater and terrestrial algae of the British Isles. Including more than 2400 algal species (excluding diatoms). Detailed descriptions are fully illustrated with clear line drawings and photographs.

186478 HBK	\$208	€183	£134.99
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British Water Plants

Sylvia M Haslam et al. (2011)

Split into two parts, the first part is in the form of a series of keys incorporating thumbnail sketches to show the meaning of the descriptions used. The second part deals with distribution, giving notes on the habitat and geographical range of each species.

234 PBK	\$14	€8.99	£8.99
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WEATHERPROOF STATIONERY

WATERPROOF STATIONERY

WeatherWriter

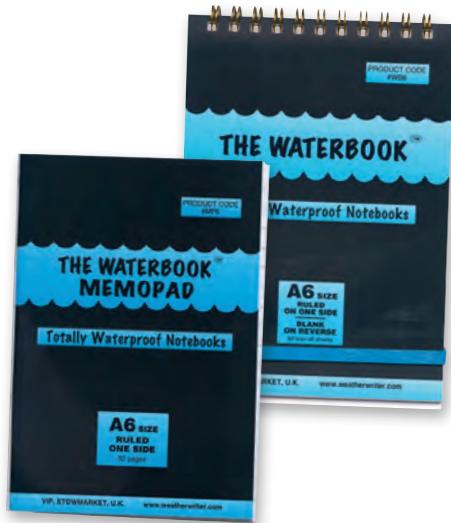
WeatherWriter waterproof clipboards are essential fieldwork items for windy, rainy or snowy days. The spring-loaded top is transparent so that you can see what you're writing and folds flat when not in use. Internal pockets keep your pens dry too. Available as a standard model which has a single external clip on the back, or a double clip model which has clips at the top and bottom on the back for writing in windy but dry conditions.

(Prices exclude VAT)

	\$	€	£
174585 A4 Portrait Standard	\$44	€39	£28.75
199474 A4 Portrait Double Clip	\$46	€41	£29.96
174593 A4 Landscape Standard	\$48	€42	£31.25
199476 A4 Landscape Double Clip	\$50	€44	£32.49
174595 A3 Portrait	\$59	€51	£37.92
174598 A3 Landscape	\$57	€50	£36.66
186939 Weatherwriter Safety Neck Cord	\$10	€9	£6.66



BEST SELLER

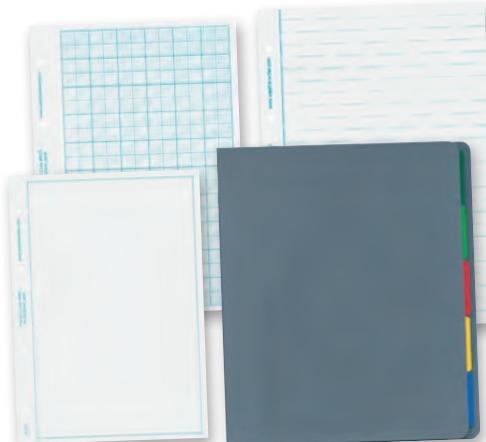


Waterbook

These Notebooks and Memopads are completely waterproof, allowing you to continue working whatever the weather. They can be written on with ballpoint pens, pencils or Fisher pens and all sheets have one ruled side and a blank reverse. The Spiral-Bound Notebooks come with 50 (A6) or 80 (A4) tear-off sheets and the Memopads with 32 sheets. Spiral-bound Waterwriter Notebooks have ridged polypropylene waterproof backboards and the Memopads have a flexible waterproof cover.

(Prices exclude VAT)

	\$	€	£
174605 Spiral-Bound A6 - Single	\$10	€9	£6.66
174606 Spiral-Bound A6 - 10 Pack	\$105	€92	£68.04
174608 Memopad A6 - Single	\$9	€8	£5.79
174609 Memopad A6 - 10 Pack	\$87	€77	£56.66
174610 Memopad A5 - Single	\$12	€10	£7.49
199012 Memopad A5 - 10 Pack	\$109	€96	£70.83
198771 Spiral-Bound A4 - Single	\$21	€19	£13.75
198772 Spiral-Bound A4 - 10 Pack	\$209	€184	£135.42

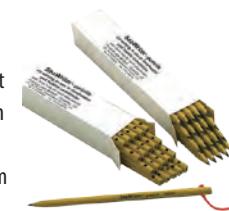


A5 Waterproof Ringbinder Gather field data in the wettest of conditions

A waterproof ring binder with a 4-hole D-ring mechanism and five tabbed waterproof dividers. Takes up to 100 A5 sheets of paper. Refills are available in packs of 50 ready-punched A5 waterproof sheets either ruled, with graph paper or blank.

(Prices exclude VAT)

	\$	€	£
193376 A5 Waterproof Ringbinder	\$8	€7	£5.42
193631 Refill - Ruled	\$9	€8	£5.83
193632 Refill - Graph	\$9	€8	£5.83
193633 Refill - Blank	\$9	€8	£5.83



Seawriter Pencil

The SeaWriter Pencil is the first pencil that can be immersed in sea water and survive without splitting, swelling or long-term degradation. It has a string drilled through the end so that it can be easily attached to spiral WaterBooks via a waterproof attachment cord (supplied). The pencil hardness is HB-B.

	\$	€	£
198776 Single Pencil	\$2	€1	£1.00
198777 20 Pack	\$26	€23	£16.66

Tyvek Waterproof Paper

White, non-toxic and recyclable, can be written on with ballpoint pens, felt tips, and pencil (4B recommended). It comes in a pack of 500 A4 sheets and is available in two densities; 55 and 75 grammes per square metre. Not suitable for use in photocopiers.



	\$	€	£
193372 55gm	\$105	€93	£68.32
193375 75gm	\$143	€126	£92.92

Zecom Photocopyable Waterproof Paper

Zecom paper can be used in photocopiers, including colour copiers, and laser printers without melt, distortion or curl. The paper has extreme long term resistance to water, oil, detergent and mud. It may also be written on in pencil, ballpoint pen, pressurised pen and waterproof or non-waterproof marker. Comes in a pack of 100 A4 sheets.



	\$	€	£
193373 Zecom paper	\$57	€50	£36.66

► Rite In The Rain

Rite in the Rain paper was developed in the 1920's to address the problem of wet paperwork in the USA's Pacific Northwest logging industry. All Rite in the Rain paper is completely recyclable by the same process as other white or printed papers. The unique Polydura covers also contain post-consumer recycled materials and are themselves recyclable. The Rite in the Rain range contains everything you could need for outdoor recording - from small and large notebooks to calendar books, sketchbooks and loose leaf A4 paper suitable for use with your printer. All these can be written on with all types of pens and pencils as well as Rite in the Rain All Weather Pens which will work in the wet, whilst upside down and in extreme temperatures.

WEATHERPROOF STATIONERY

BUYERS GUIDE ▶ 2015



Spiral Bound Notebooks

These top bound spiral notebooks are available in two sizes. Both have 100 pages (50 sheets) with full horizontal and dashed vertical lines, a yellow Polydura cover and white pages. Small: 7.5 x 11.5cm; Large: 10 x 15cm.

(Prices exclude VAT)

	\$	€	£
207712 Small	\$6	€6	£4.16
207713 Large	\$9	€8	£5.79

BESTSELLER



Field-Flex Notebooks

The Field-Flex notebook has a flexible yet durable cover. The large book has a yellow cover and 128 white pages (64 sheets). The small book is available with either a green or tan cover and 112 green or tan pages (56 sheets). All books have full horizontal and dashed vertical lines. Small: 9cm x 12.5cm; Large: 21.5 x 28cm.

(Prices exclude VAT)

	\$	€	£
207768 Small: Green cover	\$6	€6	£4.16
207770 Small: Tan cover	\$7	€6	£4.76
207765 Large: Yellow cover	\$26	€23	£16.66



Birder's Journal

This Birder's Journal is side spiral bound and has 64 pages (32 sheets). Each page has one blank side for a sketch or photograph whilst the other contains spaces for information on date, time, weather, location and other notes. 11.5 x 18cm.

(Prices exclude VAT)

	\$	€	£
207780 Birder's Journal	\$12	€10	£7.46



All Weather Pens

These Rite in the Rain Pens will work on all Rite in the Rain paper as well as other brands of waterproof and normal paper. They will write in the wet, whilst upside down and even in extreme temperatures from -35° to +120° (-30° to +250°F).



Available as a "clicker" pen or as a bullet style with lid. Both come with black ink and a refill can also be purchased.

(Prices exclude VAT)

	\$	€	£
207835 Clicker Pen	\$23	€20	£14.99
207836 Bullet Pen	\$28	€25	£18.33
207837 Black Refil	\$9	€8	£5.83



Side-Stapled Notebooks

The Side-Stapled Notebook has a yellow tagboard cover. The small version has 24 white pages (12 sheets) and the larger version, 48 pages (24 sheets). Both books have pages with full horizontal lines and dashed vertical lines. Small: 8.5 x 11.5cm; Large: 11.5 x 18cm.

(Prices exclude VAT)

	\$	€	£
207772 Small	\$4	€3	£2.33
207774 Large	\$6	€5	£3.99

(Prices exclude VAT)

	\$	€	£
207780 Birder's Journal	\$12	€10	£7.46

Sketchbook

The Rite in the Rain Sketchbook is side spiral bound and has 64 pages (32 sheets) of blank white paper. With this book you won't ever miss a chance to get down your drawings or notes whilst in the field. 21.5 x 28cm.

(Prices exclude VAT)

	\$	€	£
207787 Sketchbook	\$21	€19	£13.75

Maxi Notebook

This Maxi notebook has a strong yellow Polydura cover and spiral binding down the side. Measuring 21.5 x 28cm and with 84 pages (42 sheets) perfect if you need a large format field notebook.

(Prices exclude VAT)

	\$	€	£
207764 Maxi Notebook	\$21	€19	£13.75

(Prices exclude VAT)

Calendar Notebook

The Calendar notebook has a tough Polydura cover and tan non-glare waterproof pages. The book is split into twelve monthly sections with handy labelled tabs and includes two pages of notes per month. Also includes a four-year overview and four-year future planner. 12.5 x 18cm.

(Prices exclude VAT)

	\$	€	£
207777 Calendar Notebook	\$27	€23	£17.33



BOTANICAL SURVEY

Botanical Press

- Portable botanical press and accessories for specimen preparation in the field

A portable botanical press for preparing plant specimens for preservation. The press comprises a pair of wire mesh frames with tapes and buckles. Wadding is also provided for drying plant specimens without crushing, thus ensuring they retain their shape. Recommended for use with the Botanical Mounting Paper and Botanical Drying Paper, available in a 1 quire pack (24 sheets). With the 30ml water-soluble gum tragacanth-based Botanical Mounting Paste and a Sectioning Razor, this represents a comprehensive kit for preservation of plant specimens.

(Prices exclude VAT)

	\$	€	£
188956 Botanical Press	\$86	€75	£55.42
193358 Botanical Mounting Paper	\$12	€10	£7.46
188966 Botanical Drying Paper	\$16	€14	£10.42
193359 Botanical Mounting Paste	\$8	€7	£5.42
188818 Sectioning Razor	\$13	€11	£8.32



Quadrats

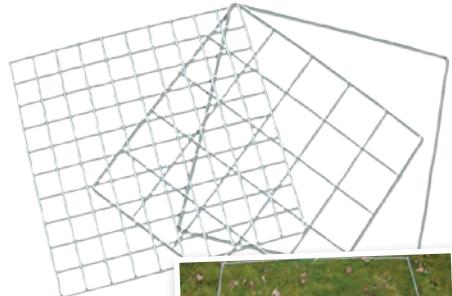
- Lightweight quadrats for ecological surveying

Made from heavy gauge steel wire with either zinc plating (Q1, Q4) to make them UV-resistant and chip-proof or plastic coating (Q2, Q3) to make them easily visible and protect welding.

All quadrats measure 0.5m x 0.5m and come with a range of subdivisions for different vegetation types. The versatile Q4 quadrat is collapsible and can be arranged to make larger sampling squares.

(Prices exclude VAT)

	\$	€	£
175985 Q1 Quadrat - no divisions	\$16	€14	£10.21
175986 Q2 Quadrat - 100mm divisions, 25 squares	\$18	€16	£11.66
175987 Q3 Quadrat - 50mm divisions, 100 squares	\$21	€18	£13.33
195854 Q4 Quadrat - no divisions	\$16	€14	£10.21



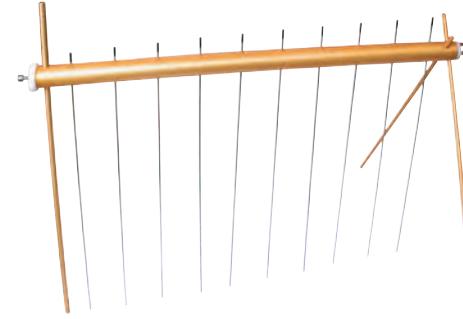
Point Frame Complete with Pins

- Standard survey tool for areas with sparse vegetation

A professional point frame utilising a practical tripod design for botanical surveying in salt marsh, sand dunes or other sparsely vegetated environments. The ten pins and three legs are carried inside the frame tube to prevent the accidental loss of components when the point frame is not in use. This frame has a gold anodised aluminium tube body with precision drilled pin holes and solid legs, self-locking end caps and stainless steel thumb screws, making it both accurate and durable. This is an extremely durable frame - some frames 20 years old are still in use.

(Prices exclude VAT)

	\$	€	£
175600 Point Frame	\$122	€107	£79.17



Phase 1 Habitat Survey Kits

- Complete kit for Phase 1 Habitat Surveying

The Phase 1 Habitat Survey Essentials Kit contains the basics for carrying out a Phase 1 Habitat Survey, including a Handbook for Phase 1 Habitat Survey (Handbook and Field Manual: A Technique for Environmental Audit), an A4 WeatherWriter (either Portrait or Landscape) and a complete set of Phase 1 coloured pencils. The manual provides all the information needed for surveying, classifying and mapping wildlife habitats including urban areas. The Berol Verithin Coloured Pencils Set is also available separately.

(Prices exclude VAT)

	\$	€	£
191851 Phase 1 Essentials Kit A4 Portrait Weatherwriter	\$72	€63	£46.66
191958 Phase 1 Essentials Kit A4 Landscape Weatherwriter	\$75	€66	£48.32
191561 Berol Verithin Coloured Pencils Complete Set of 14 pencils	\$6	€6	£4.16



Marking Flags

- Handy weatherproof flags for marking sampling sites

The 127mm x 100mm flags are manufactured from non-toxic lead free vinyl and are weatherproof and fade resistant. Each flag comes secured to a 533mm wire stem. Available in red or yellow in packs of 10 or 100 flags.

(Prices exclude VAT)

	\$	€	£
199413 Red (Pack of 10)	\$3	€2	£1.66
199412 Red (Pack of 100)	\$22	€19	£14.16
199419 Yellow (Pack of 10)	\$3	€2	£1.66
199418 Yellow (Pack of 100)	\$22	€19	£14.16





► Felco Tools

Combining ergonomic and comfortable design with durable components and readily available replacement parts, Felco tools offer innovative solutions to both professional markets and domestic users. We stock a range of Felco secateurs as well as loppers, pruning saws and cable cutters.

Felco 5 Economy Secateurs

These Economy Secateurs from Felco have sturdy steel handles covered with an ergonomic non-slip coating. The blade and anvil are made from high-quality hardened steel and they have a centre nut which aligns the blades for a clean, precise cut. They can be easily adjusted.

They are ideal for cutting branches of up to 25mm (1") diameter and are suitable for viticulture, arboriculture, horticulture and nursery work. These secateurs are recommended for users with average to large sized hands. Lifetime guarantee.

(Prices exclude VAT)

207951 Felco 5 Secateurs \$39 €34 £24.99



Felco 2 High Performance Secateurs

These High Performance Secateurs from Felco have light, sturdy aluminium handles whilst the blades and riveted anvil are made from high-quality hardened steel. They have a wire cutting notch and sap groove and can be easily adjusted. A rubber cushion-shock absorber works to protect the wrist when in use. They are ideal for cutting branches of up to 25mm (1") diameter and are suitable for viticulture, arboriculture, horticulture and nursery work. Recommended for users with average to large sized hands. Lifetime guarantee.

(Prices exclude VAT)

207956 Felco 2 Secateurs \$77 €68 £49.99



Felco Pruning Saw

The Felco Pruning Saw is a pull-stroke saw with a rust resistant chromed blade made of steel. The conical blade shape makes for an easy, non-clogging cut and the set and shape of the teeth prevents sap build-up, meaning that no maintenance is required. The handle is ergonomically designed to be comfortable and has a non-slip texture. A sheath for right- or left-handers is also provided with a detachable belt loop. Suitable for all hand sizes. Recommended for viticulture, arboriculture and general use in parks and gardens.

(Prices exclude VAT)

207960 Felco Pruning Saw \$73 €64 £47.49



Grip Green Horticulture/Forestry/Botanical Gloves

These hard-wearing gloves protect your hands whilst offering good grip and usability for horticulture, forestry and botanical work. The natural rubber palm protects the hand from abrasion, cuts and puncturing while the ventilated back will help to keep your hands cool in hotter climates.

(Prices exclude VAT)

	\$	€	£
180468 Small	\$5	€5	£3.33
180469 Medium	\$5	€5	£3.33
180470 Large	\$5	€5	£3.33
180471 X large	\$5	€5	£3.33



Felco 4 Standard Secateurs

These Standard Secateurs from Felco have light, sturdy handles which are manufactured from forged aluminium. The blade and riveted anvil are made from high-quality hardened steel. They also have a wire cutting notch and sap groove and can be easily adjusted. These secateurs are ideal for cutting branches of up to 25mm (1") diameter and are suitable for viticulture, arboriculture, horticulture and nursery work. Recommended for users with average to large sized hands. Lifetime guarantee.

(Prices exclude VAT)

207955 Felco 4 Secateurs \$55 €49 £35.79



Felco Cable Cutters

These one handed Cable Cutters from Felco are ideal for cutting steel wire, fencing wire, cables and wire rope of up to 7mm thickness. Both the blades and centre bolt are manufactured from high-quality hardened steel making them extremely durable. The triangular cutting system allows you to cut precisely but without squashing the cable. Handles are made from pressed steel and have comfortable non-slip grips and a thumb catch allows for easy one-handed operation.

(Prices exclude VAT)

207965 Felco Cable Cutters \$55 €49 £35.79



Felco Loppers

These Felco Loppers have lightweight aluminium handles with a comfortable non-slip coating. The blade and screw-mounted anvil blade are both made of high quality hardened steel and the curved head makes for easy and efficient pruning work. Built-in shock absorbers protect the wrists and arms when in use. Suitable for users with small to large hands and for both right and left handed people. Recommended for viticulture, arboriculture, horticulture and for use in parks and gardens.

(Prices exclude VAT)

207962 Felco Loppers \$120 €105 £77.49



Felco Barbed Wire Cutters

These one-handed cutters from Felco are designed for cutting barbed wire with a maximum diameter of 5mm (0.2"). It has a handy cutting notch which allows it to be caught by holding it at the bottom of the cutting profile. Both blades and centre bolt are made from high-quality hardened steel and the handles are manufactured from pressed steel with non-slip grips. A thumb catch enables easy one-handed operation.

(Prices exclude VAT)

207969 Felco Barbed Wire Cutters \$67 €59 £43.29



CLINOMETERS

A clinometer is used to measure the angle of a slope. By using the principles of trigonometry, the height of tall objects, such as trees or buildings, can then be calculated from the angle measured. This method is a great way of teaching students about landscape survey. In more advanced models, the distance from eye to the base of the chosen target can be input into the clinometer, enabling it to accurately calculate the height for you.



Haglöf EC II Clinometer

The Haglöf EC II allows you to precisely measure both inclination and height quickly and easily. The simple three button design is easy to use - set the function and log heights/angles by pressing the "on" button a defined number of times. Distance from your chosen target is entered using the up and down arrows. The EC II does not require any calibration or maintenance and, powered by a single battery, will last for many months. Takes one AA battery (included). Inclination is provided in degrees and height in metres.

Please note: The EC II will not measure distances. A tape measure or other device must be used to determine the correct distance from the eye to the base of the chosen target.

(Prices exclude VAT)



206260 Haglöf EC II Clinometer \$231 €203 £150.00



Haglöf HEC-R Clinometer with Basal Area Function

The HEC-R Relascope is an invaluable tool for the forest surveyor. It will measure tree heights, count number of stems and also calculate the basal area of trees. Using one dominant tree height it will then calculate timber volume/ha. This relascope has very low battery consumption and is lightweight, rugged and reliable. Measurements are in metres and degrees and basal area factors available are 0.5, 1, 2 or 4m/ha². A spare or replacement factor gauge is also available.

(Prices exclude VAT)

210843 HEC-R \$450 €396 £291.67



Nikon Forestry Pro Laser Rangefinder

In addition to measuring horizontal distance (up to 500m), the Nikon Forestry Pro provides actual distance and can act as a clinometer to give you measurements of height, angle, vertical separation (the difference in height between two targets) and a three-point measurement to give you the height between two points. The results can be displayed in metres, yards or feet and are visible simultaneously on both an internal and external LCD panel. The Forestry Pro also has a target priority switch to measure overlapping subjects: the First Target Priority mode displays the distance of the closest subject and the Distance Target Priority mode displays the distance of the furthest subject: useful in wooded areas. Measurements can be taken singly or continuously for up to 20 seconds.

(Prices exclude VAT)

211176 Nikon Forestry Pro \$423 €372 £274.17

Mantax Blue Calipers (500mm)

Tree Calipers allow for fast and accurate measuring of tree and log diameters.



These Swedish made calipers from Haglöf are manufactured from alloy coated aluminium and have detachable aluminium and steel jaws. The scale is graduated in cm with mm markings and runs from 0 to 50cm.

(Prices exclude VAT)

214225 Blue Calipers (500mm) \$94 €82 £60.79



Richter 2m Tree Diameter Tape

Double-sided tape which can measure both circumference and diameter. The 2 metre long blade is graduated in millimetres and figured in centimetres. The white enamelled steel blade is 10mm wide and housed in a white plastic casing.

(Prices exclude VAT)

221623 Richter 2m Diameter Tape \$23 €20 £14.96



Haglöf Increment Borer

Haglöf Increment Borers are manufactured from high quality Swedish steel. The bit has a PTFE coating to reduce friction and protect against rust and resin. The extractor is included and is stored securely inside the handle. An optional corer starter will also help to prolong the lifetime of your borer bit and makes the initial drilling process much easier. Increment borers have a diameter of 5.15mm and are available with a 200mm, 300mm or 400mm bit length. They have a three-threading type tip which penetrates at a rate of 12mm per turn. Please contact us if you require a size of borer which is not listed here. A sharpening kit is also available to purchase separately.

(Prices exclude VAT)

	\$	€	£
217965 200mm Bit Length	\$148	€130	£95.83
220324 300mm Bit Length	\$175	€154	£113.33
220325 400mm Bit Length	\$204	€180	£132.50
220328 Borer Starter	\$37	€33	£24.17
220330 Borer Sharpening Kit	\$69	€61	£45.00

Biodegradable Marking Tape

This tape is completely non-toxic to humans, animals and the environment and degrades completely within 6–24 months when left outdoors. Tape is 20mm wide and 75mm. Available in five colours.

(Prices exclude VAT)

	\$	€	£
206246 Red	\$6	€5	£3.75
206250 Yellow	\$6	€5	£3.75
206224 Blue	\$6	€5	£3.75
206245 Green	\$6	€5	£3.75
206249 White	\$6	€5	£3.75



Richter 5m Tree Diameter Tape

The Richter 5m diameter tape can measure both circumference and diameter. The 5m blade is constructed from heavy duty fiberglass and housed in a robust steel case. The quick release tree hook makes this ideal for tree surveys. The front of the tape is graduated in centimetres and labelled every 10 centimetres, the back of the tape is graduated in millimetres with labels every centimetre.

(Prices exclude VAT)

	\$	€	£
221589 Richter 5m Diameter Tape	\$64	€56	£41.63

Woodland Management: A Practical Guide

Chris Starr (2013)



Woodland Management is essential reading for anyone with an interest in trees and woodland. The book begins with a look at how our woodlands have developed and a discussion of the different types of woodland. It then explores, in a non-technical way, all aspects of management.

208149 HBK

\$26 €23 £16.99

Managing your Woodland for Wildlife

David Blakesley and Peter Buckley (2010)

This book looks at woodland types and considers how different management strategies will affect the organisms that comprise them. The creation of woodland open space is given particular prominence.

187319 PBK \$15 €13 £9.45

**National Vegetation Classification:**

Field Guide to Woodland

JE Hall *et al.* (2004)

This field guide is part of a series of interpretative publications tailored to provide support for users of the National Vegetation Classification. Full of practical advice, this comprehensive handbook will be an invaluable tool for fieldworkers and conservationists in general.

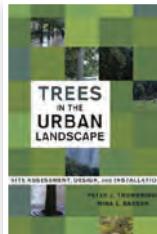
145878 PBK \$14 €12 £8.99

**Trees in the Urban Landscape**

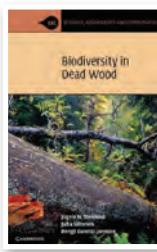
Peter J Trowbridge and Nina L Bassuk (2004)

This practical guide offers tools for making detailed assessments of sites that pose problems as well as sites that provide opportunities for tree plantings in urban environments. It addresses the increasingly important needs of those involved in the "greening of cities".

165231 HBK \$100 €88 £65.00

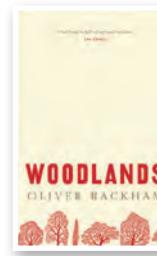
**Biodiversity in Dead Wood**Jøgeir N Stokland *et al.* (2012)

Presenting a thorough introduction to biodiversity in decaying wood, this book studies the rich diversity of fungi, insects and vertebrates that depend on this particular habitat. The authors also present management options for protecting these species in forests, agricultural landscapes and urban parks.

194701 PBK \$69 €61 £44.99
194702 HBK \$131 €115 £84.99**Woodlands**

Oliver Rackham (2012)

Woodlands offers a fascinating insight into the trees of the British landscape that have filled us with awe and inspiration throughout the centuries. In a lively and engaging style, Rackham explores woodlands and their history.

196828 PBK \$23 €20 £14.99
178560 HBK \$31 €27 £19.99**Woodland Creation for Wildlife and People in a Changing Climate: Principles and Practice**

David Blakesley and Peter Buckley (2010)



This book presents a comprehensive and richly-illustrated guide to the principles and practice of woodland creation for wildlife and people in a changing climate. The first part of the book looks at the issues underlying woodland creation and natural succession and describes different woodland community types as model habitat targets. The impact of climate change on woodland into the future is also explored. The second part presents vital practical information including the selection of sites, selecting tree species and sourcing seeds as well as overall design and management.

186756 PBK \$38 €34 £24.95

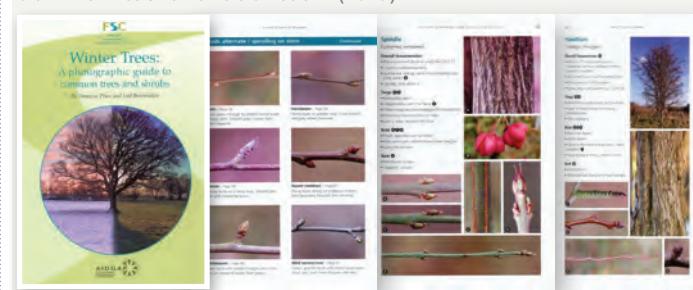
Forest Ecology and Conservation: A Handbook of Techniques

Adrian C Newton (2007)

Forest Ecology and Conservation describes research methods and techniques relevant to understanding forest ecology, with a particular focus on those that are relevant to practical conservation and sustainable forest management. It provides a comprehensive synthesis of information for use by graduate students, researchers and conservationists.

156442 PBK \$59 €52 £37.99
156438 HBK \$116 €102 £74.99**Winter Trees: A Photographic Guide to Common Trees**

Dominic Price and Leif Bersweden (2013)



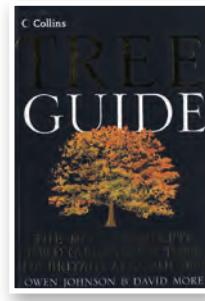
Identifying trees in winter without their familiar leaves can appear a daunting challenge, but a closer look will reveal a multitude of slowly swelling buds. A quick glance at the bud summary photos in Winter Trees instantly reveals their sheer diversity. This photographic guide will help you to identify trees in winter using features such as buds, bark, size and habitat. The book covers 36 of the common broad-leaved deciduous species, or groups of species, that are most likely to be found in the UK, as well as a few rarer trees.

209999 PBK \$15 €14 £9.99

Collins Tree Guide

Owen Johnson and David More (2004)

The Collins Tree Guide is a fully-illustrated guide to the trees of Britain and non-Mediterranean Europe. Containing beautiful illustrations, the guide provides a detailed description of each species as well as information helpful for identifying a particular tree from its family.

151916 PBK \$29 €26 £18.99
128715 HBK \$39 €34 £24.99

BOTANY BOOKS

NATURAL HISTORY

Britain's Rare Flowers

Peter Marren (2005)



Describes the discovery and the special places that are rich in such plants, and discusses the species that have died out completely, others that have become naturalised and the surprising discovery of new native plants in recent years. Conservation projects past and present are examined, and comments made on their success.

149254 PBK

\$31

€27

£19.99

Vegetation of Britain and Ireland

Michael Proctor (2005)

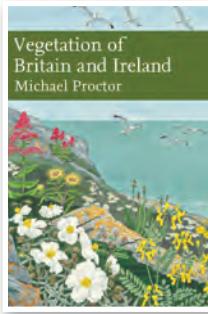
A comprehensive account of all the different types of plant habitat in Britain and Ireland: from woodlands and scrubland to meadows and grasslands, from wetlands and peatlands to heaths, and from the mountain vegetation to the sea coast. He examines the history and ecology of each of these habitats, and describes the rich variety of flora found living there.

128712 HBK

\$69

€61

£44.99



Indicator Plants (Colour): Using Plants to Evaluate the Environment

Paul L Smith (2013)

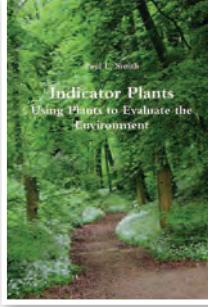
Compiled from a range of published sources and from the author's personal experience, it is intended for use primarily in the lowland English countryside. Relevant published sources are cited in the tables and fully referenced at the end of the book. The appendices include a worked exercise to test the skills learnt in using Indicator Plants: Using Plants to Evaluate the Environment.

208057 PBK

\$39

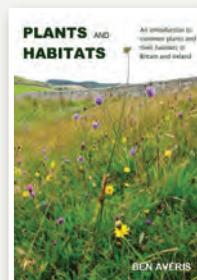
€34

£24.99



Plants and Habitats: An Introduction to Common Plants and Their Habitats in Britain and Ireland

Ben Averis (2013)



Plants and Habitats combines the species and habitat approaches to plants and vegetation. Most of it is an identification guide to 700 plant species selected as those which are common, conspicuous or useful ecological indicators; species which collectively make up most of the vegetation in Britain and Ireland. There is also a separate habitats section describing the flora, ecology and management of habitats.

207185 PBK

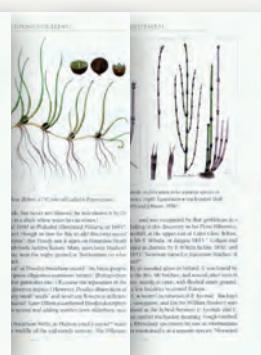
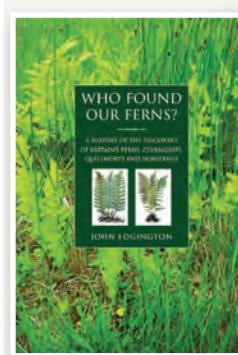
\$39

€34

£24.99

Who Found our Ferns?

John Edgington (2013)



Who Found Our Ferns? tells the story of the discovery of Britain's pteridophytes, from Saxon times to 2012. The lives of those who noticed, collected and described our ferns, horesetails, quillworts and clubmosses are interwoven with accounts of how, where and when they found them.

208782 PBK

\$25

€22

£15.99

A Vascular Plant Red List for England

PA Stroh et al. (2014)

This vascular plant Red List for England presents for the first time a comprehensive and objective assessment of threat, using globally recognised IUCN categories and criteria, for over 1,800 native and archaeophyte species found in the region.

218371 PBK

\$25

€22

£15.99



Meadows

George Peterken (2013)

In this exceptional work, George Peterken, one of our most respected ecologists, brings together years of research and discovery from his travels across Britain and Europe, as well as an understanding borne out of caring for his own meadows, to produce a book that will put this often misunderstood habitat back in the public's eye.

200197 HBK

\$46

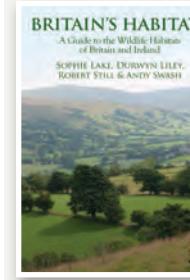
€41

£29.95



Britain's Habitats: A Guide to the Wildlife Habitats of Britain and Ireland

Sophie Lake et al. (2014)



A photographic guide to habitats, this lavishly illustrated book provides a comprehensive overview of the natural history and conservation landscape of Britain and Ireland. In essence a field guide, Britain's Habitats leads the reader through all the main habitat types, with information on their characteristics, extent, geographical variation, key species, cultural importance, origins and conservation.

214210 HBK

\$43

€38

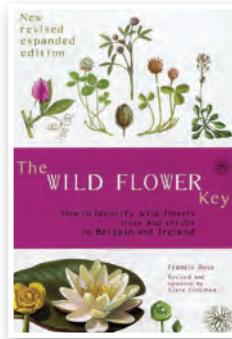
£27.95

The Wild Flower Key: How to identify wild flowers, trees and shrubs in Britain and Ireland

Francis Rose and Clare O'Reilly (2006)

Revised and expanded edition of this essential guide with full keys to more than 1600 wild plants found in Britain and Ireland. The text aims to be as useful as possible for those working in conservation by, for example, marking plants as protected or as 'Red List' endangered species, and including a compilation of the latest research on ancient woodland indicator plants.

143162 PBK \$39 €34 £24.99



Harrap's Wild Flowers: A Field Guide to the Wild Flowers of Britain & Ireland

Simon Harrap (2013)

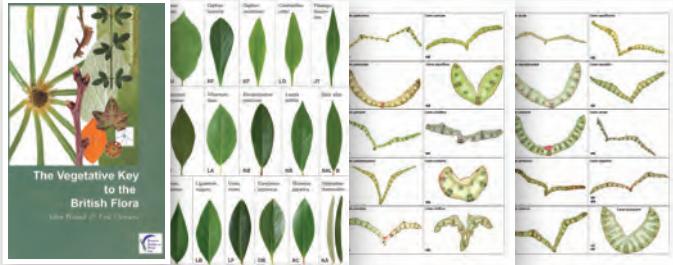


The text aims to be as useful as possible for those working in conservation by, for example, marking plants as protected or as 'Red List' endangered species, and including a compilation of the latest research on ancient woodland indicator plants.

204450 PBK \$26 €23 £16.99

The Vegetative Key to the British Flora: A New Approach to Plant Identification

John Poland and Eric Clement (2009)



This key enables the user to easily identify over 3,000 native and alien plants without flowers or fruit, with nothing more than a hand lens. A diligent enthusiast should be able to correctly identify a plant within three turns of a page.

179815 PBK \$35 €30 £22.49

Wild Flowers of Britain and Ireland

Marjorie Blamey et al. (2013)



With over 5000 detailed colour paintings and more than 1600 maps, this is the most extensively illustrated wild flower guide to Britain and Ireland yet. Coloured, boxed keys to plants in complex or difficult groups are provided to assist identification.

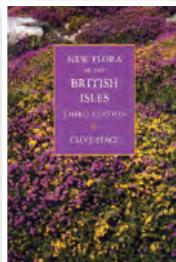
198409 PBK \$29 €26 £18.99

New Flora of the British Isles

Ed. by Clive Anthony Stace (2010)

This book has become established as the standard work on the identification of the wild vascular plants of the British Isles. It contains full coverage of all British wild plants with user-friendly organisation and includes specially compiled keys and descriptions.

183991 PBK \$100 €88 £64.99



Wild Flowers of the Mediterranean

Marjorie Blamey and Christopher Grey-Wilson (2004)

In all, over 2500 plant species are described. Illustrated by renowned botanical artist Marjorie Blamey, and written by leading field botanist Christopher Grey-Wilson

146204 PBK \$26 €23 £16.99



Collins Flower Guide: The Most Complete Guide to the Flowers of Britain and Europe

David Streeter (2010)

This field guide to the flowers of Britain and northern Europe is the most complete single-volume guide ever published. Featuring all flowering plants, including grasses, ferns, club mosses and trees, Collins Flower Guide covers over 1900 species.

151921 PBK \$31 €27 £19.99

Conifers of the World

James E Eckenwalder (2009)

This definitive work provides up-to-date descriptions and discusses the relationships, practical usages, champion trees, fossil occurrences, and biology of all the true conifers of the world. It is the first comprehensive update of conifer taxonomy in nearly a century.

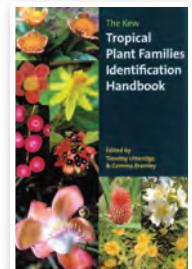
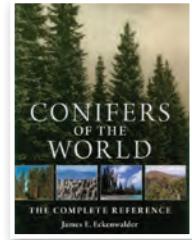
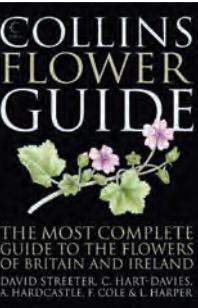
181102 HBK \$69 €61 £44.99

The Kew Tropical Plant Families Identification Handbook

Ed. by Timothy Utteridge and Gemma Bramley (2014)

The Kew Tropical Plant Families Identification Handbook is based on Kew's Tropical Plant Identification course, which uses classical morphology, as well as more simple 'spot' characters, to teach plant identification.

202248 PBK \$31 €27 £19.99



Britain's Plant Galls: A Photographic Guide

Michael Chinery (2011)



A handy-sized photographic field guide that aims to help both beginners and experts alike to learn more about some of the conspicuous, picturesque and bizarre plant galls that exist throughout Britain.

192220 PBK \$23 €20 £14.95

BOTANY BOOKS

BSBI Handbooks

This established series of identification keys and guides to British plant life is published by the Botanical Society of the British Isles. Each book is extensively illustrated with meticulous line drawings.

British Northern Hawkweeds: A Monograph of British Hieracium Section Alpasteria (2011)

196817 PBK \$46 €41 £29.99

Whitebeams, Rowans & Service Trees of Britain & Ireland (2010)

186573 PBK \$46 €41 £29.99

Fumitories of Britain & Ireland (2009)

177809 PBK \$19 €17 £12.50

Grasses of the British Isles (2009)

166205 PBK \$31 €27 £19.99

180837 HBK \$39 €34 £24.99

Water-Starworts Callitrichae of Europe (2008)

166206 PBK \$23 €20 £14.99

Sedges of the British Isles (2008)

142876 PBK \$27 €24 £17.50

Illustrations of Alien Plants of the British Isles (2005)

153664 PBK \$29 €25 £18.75

Sea Beans & Nickar Nuts (2000)

107437 PBK \$19 €17 £12.50

Pondweeds of Great Britain & Ireland (1995)

45035 PBK \$27 €24 £17.50

Roses of Great Britain & Ireland (1993)

29535 PBK \$19 €17 £12.50

Crucifers of Great Britain & Ireland (1991)

12459 PBK \$19 €17 £12.50

Willows & Poplars of Great Britain & Ireland (1984)

269 PBK \$19 €17 £12.50

Umbellifers of the British Isles (1980)

1591 PBK \$15 €14 £9.99



GRASSES, SEDGES & FERNS

Grasses

C Hubbard (2011)

This comprehensive, illustrated study by a leading world authority remains a standard work. In it, farmers, botanists and anyone interested in the countryside can find all the material they need to identify our native grasses and to learn about their structure, distribution and uses.

1504 PBK \$23 €20 £14.99

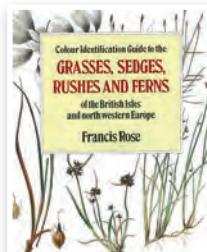


Colour Identification Guide to the Grasses, Sedges, Rushes and Ferns of the British Isles and North-Western Europe

Francis Rose (1989)

This comprehensive work provides amateurs and professionals alike with a definitive account of all the native and naturalized species of grasses, sedges, rushes and ferns. Over 420 species are described with 350 magnificently illustrated in colour.

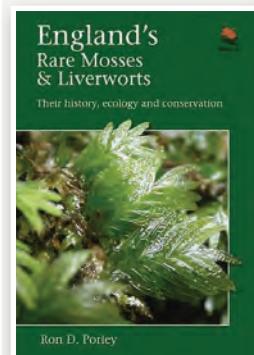
4437 HBK \$77 €68 £49.99



MOSSES AND LIVERWORTS

England's Rare Mosses and Liverwort

Ron D Porley (2013)



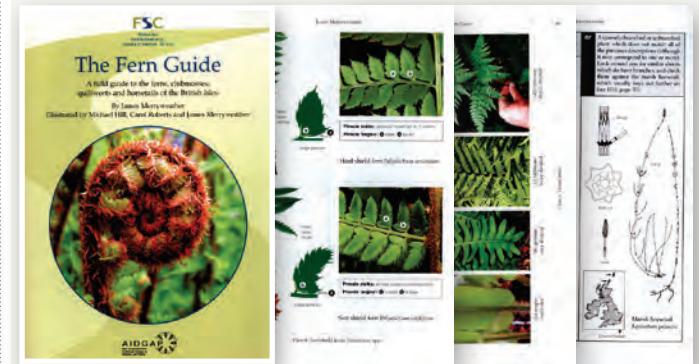
England's Rare Mosses and Liverworts looks at what bryophytes are, why they are important and useful, and what makes them rare; it also examines threats, extinctions, ex situ conservation techniques, legislation, and the impact of the 1992 Convention on Biological Diversity.

203578 HBK



The Fern Guide: A Field Guide to the Ferns, Clubmosses, Quillworts and Horsetails of the British Isles

James Merryweather and Michael Hill (2007)



Illustrated with colour plates and with line drawings throughout the text, the identification keys in this guide should enable beginners to put a name to the species they find. Commonly occurring hybrids are also included.

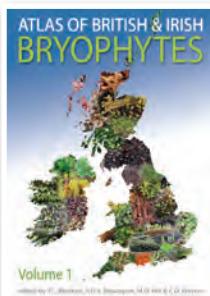
169757 PBK \$15 €14 £9.99

Atlas of British & Irish Bryophytes (2-Volume Set)

Ed. by TL Blockeel et al. (2014)

All 1069 species of hornworts, mosses and liverworts are mapped in this new, 2-volume publication. It replaces the earlier, 3-volume Atlas (1991–94), updating it with the results of 20 years' further fieldwork by members of the British Bryological Society.

216894 HBK \$116 €102 £74.99

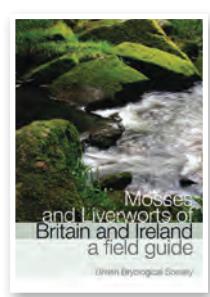


Mosses and Liverworts of Britain and Ireland: A Field Guide

Ed. by Ian Atherton et al. (2010)

This book is the only up-to-date, user-friendly guide to identifying British and Irish bryophytes in the field, with hundreds of colour photographs and black and white drawings showing both whole plants and with distinguishing features magnified.

180948 PBK \$59 €52 £38.50



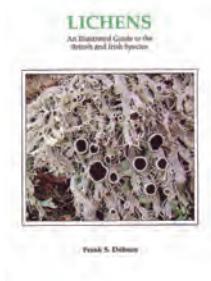
LICHENS

Lichens: An Illustrated Guide to the British and Irish Species

Frank S Dobson (2011)

This book provides an invaluable guide to identifying the British and Irish species both for the amateur naturalist and the more advanced lichenologist. In addition, because of its references to air pollution tolerance and distribution, it offers the environmentalist and ecologist a concise work of reference, compact enough to be used in the field. It provides a description of most of the species likely to be found in Great Britain and Ireland, those excluded being very rare or very local.

194451 PBK



\$54 €47 £34.99

FUNGI - NATURAL HISTORY

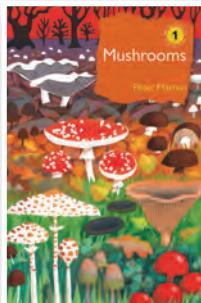
Mushrooms

Peter Marren (2012)

Mushrooms explores such subjects as the naming of fungi, their importance in natural ecosystems, fungus forays and our ambivalent attitude to edible fungi, as well as recent efforts to record and conserve vulnerable species. Copiously illustrated with beautiful colour photographs.

200196 HBK

\$38 €34 £24.95



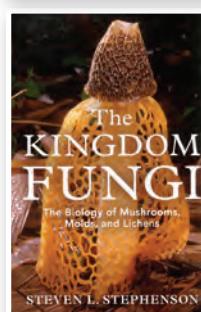
The Kingdom Fungi: The Biology of Mushrooms, Molds, and Lichens

Steven L Stephenson (2010)

The Kingdom Fungi is a useful introductory text for naturalists, mycologists, and anyone who wants to become more familiar with, and more appreciative of, the fascinating world of fungi. Particular attention is given to examples of fungi that might be found in the home and encountered in nature.

185758 HBK

\$31 €27 £19.99



FUNGI - IDENTIFICATION

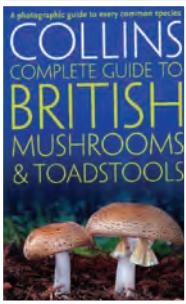
Collins Complete Guide to British Mushrooms and Toadstools

Paul Sterry and Barry O Hughes (2009)

A superb guide that allows anyone to identify mushrooms found in Britain and Ireland. The book is illustrated with beautiful photographs throughout, featuring the species you are most likely to see.

169912 PBK

\$26 €23 £16.99



Geoffrey Kibby's Fungi Species

Geoffrey Kibby has been studying mushrooms in the field for more than 40 years. His series of full colour A4-size fungi identification guides, has easy-to-use keys based mainly on field characters and photographs of the vast majority of British Species. More titles in this series are forthcoming, please check www.nhbs.com for up-to-date information

British Milkcaps: Lactarius & Lactifluus (2014)

217493 Spiralbound \$31 €27 £19.99

The Genus Tricholoma in Britain (2012)

203541 PBK \$24 €21 £15.50

British Boletes: With Keys to Species (2013)

209189 Spiralbound \$31 €27 £19.99

The Genus Russula in Great Britain: with Synoptic Keys to Species (2012)

197011 Spiralbound \$32 €28 £20.99

The Genus Amanita in Great Britain (2012)

199552 PBK \$26 €23 £16.99

Field Keys to Lichens

We highly recommend Frank S Dobson's series of practical field keys, which has recently been expanded by a new key to lichens on trees. The keys are spiral-bound, with colour plates, distribution maps, an introduction to lichens and their identification along with an illustrated glossary to aid the novice and a bibliography for further research.

A Field Key to Lichens on Trees (2013)

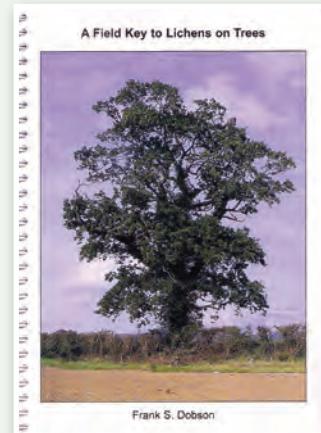
207571 PBK \$31 €27 £19.99

A Field Key to Coastal & Seashore Lichens (2010)

184949 PBK \$25 €22 £16.50

A Field Key to Common Churchyard Lichens, 2nd ed (2014)

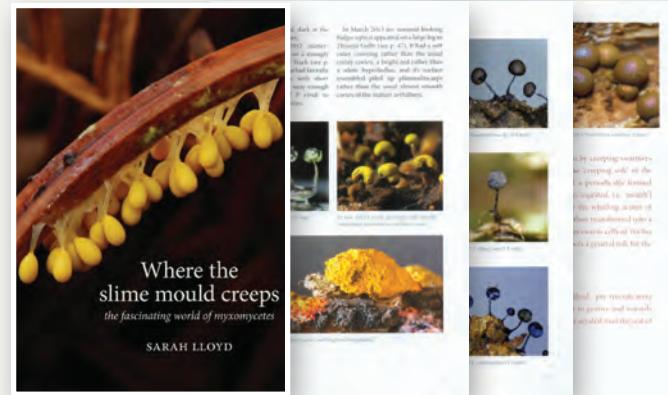
210146 PBK \$23 €20 £14.99



Frank S. Dobson

Where the Slime Mould Creeps: The Fascinating World of Myxomycetes

Sarah Lloyd (2014)



This book documents many common but rarely seen events including actively feeding plasmodia (one of the two animal-like stages of a myxomycete) and the transformation of plasmodia to reproductive structures.

220086 PBK

\$28 €24 £17.99

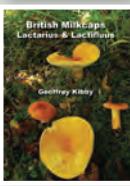
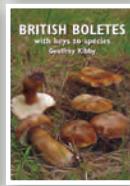
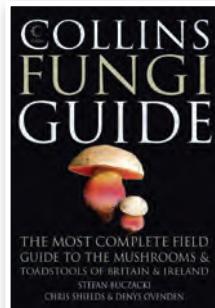
Collins Fungi Guide: The Most Complete Field Guide to the Mushrooms and Toadstools of Britain & Ireland

Stefan Buczacki (2013)

Nearly 2400 species are illustrated in full colour, with detailed notes on how to correctly identify them, including details of similar, confusing species. Illustrations of young and mature fruiting bodies are included where necessary, and key features are highlighted for quick and easy reference.

195386 PBK

\$31 €27 £19.99





BUYERS GUIDE ▶ 2015

INTRODUCTION TO GPS

GPS is based on a network of 24 satellites placed into orbit by the U.S. Department of Defence. Since the 1980's, these have been available for civilian use and are now used for commercial and recreational navigation all over the world.

GPS units have become an essential tool for many field workers and particularly for ecological surveyors. GPS can be used for storing locations of survey subjects and will provide a position for written records or stored digitally for later use. Out in the field the 'Store a Waypoint' option allows you to save your location in either OS grid or another format such as latitude/longitude. Once back at base, these points can be downloaded onto a PC using software compatible with the GPS unit. For the amateur naturalist and outdoor enthusiast a GPS unit has obvious benefits over a paper map for navigation and for mapping of survey sites.

A range of mapping software is available for use with Garmin GPS unit and your specific activities and map scale/detail requirements will determine which software is right for you. Map details can include streets, marine data, topography and even tourist attractions and options such as the BirdsEye Select Retail Card allow you to download only the areas that you require.

GPS COMPARISON

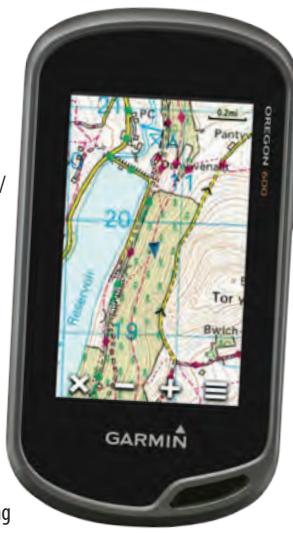
FEATURES	ETREX 10	ETREX 20/30	OREGON 600/600t	OREGON 650/650t
UNIT DIMENSIONS, W X H X D	5.3 x 10.1 x 3.3 cm	5.3 x 10.1 x 3.3 cm	6.1 x 11.4 x 3.3 cm	6.1 x 11.4 x 3.33 cm
WEIGHT	142 grams	142 grams	209 grams	209 grams
BATTERY	2 x AA batteries	2 x AA batteries	2 x AA batteries	2 x AA batteries
BATTERY LIFE	25 hours	25 hours	16 hours	16 hours
WATERPROOF (IPX7)	YES	YES	YES	YES
EXPANDABLE MEMORY	No	MicroSD	MicroSD	MicroSD
USABLE INTERNAL MEMORY	No	1.7 GB	1.5 GB / 750MB	3.5 GB / 4.4 GB
PRELOADED MAPS	Worldwide basemap	Worldwide basemap	Worldwide basemap / European Recreation 1:100k map	Worldwide basemap / European Recreation 1:100k map
WAYPOINTS	1000	1000	2000	2000
ROUTES	50	50	200	200
TRACK LOG	10,000 points, 200 saved tracks	10,000 points, 200 saved tracks	10,000 points, 200 saved tracks	10,000 points, 200 saved tracks
WIRELESS DATA TRANSFER	No	eTrex 30 only	Yes	Yes
3-AXIS COMPASS	No	eTrex 30 only	Yes	Yes
BAROMETRIC ALTIMETER	No	eTrex 30 only	Yes	Yes
3D VIEW	No	No	Yes	Yes
CAMERA	No	No	No	8 megapixel
CUSTOMISABLE DASHBOARD	No	Yes	Yes	Yes
BIRDSEYE SELECT COMPATIBLE	No	Yes	Yes	Yes

Garmin Oregon Series

•Wireless data transfer

•8.0 megapixel camera option

The Garmin Oregon units use high-sensitivity WAAS/EGNOS and GLONASS enabled satellite tracking which provides a faster fix, even in shaded and remote environments. They also have a sunlight-readable touch screen which is strengthened for impact and usable even with gloved hands. The screen possesses dual orientation meaning that you can view maps and data either vertically or horizontally.



The 3-axis electronic compass has accelerometer tilt compensation which shows where you're heading even when you're standing still and not holding it level.

It will also provide your precise altitude using the barometric altimeter and will give you important information about changing weather conditions.

The Oregon 600 and 650 come with a worldwide shaded relief map as standard, whilst the 600t and 650t come loaded with a 1:100k European recreation map. Data such as photos, geocaches, routes and maps can be transferred quickly and easily between Oregon 600-series devices. The Oregon 650 and 650t also come with an 8 megapixel camera and will automatically geotag any pictures that are taken, making it perfect for keeping a photographic record of survey sites or locations that you have visited. Also available as a bundle with 1:50k GB Discoverer mapping software.

(Prices exclude VAT)

	\$	€	£
206702 Oregon 600	\$400	€351	£259.19
206703 Oregon 600t	\$486	€427	£314.99
206723 Oregon 650	\$440	€386	£284.99
206724 Oregon 650t	\$509	€447	£329.99
206706 Oregon 600 with GB Discoverer	\$476	€418	£308.33
207680 Oregon 600t with GB Discoverer	\$553	€486	£358.29
206826 Oregon 650 with GB Discoverer	\$553	€486	£358.29
207694 Oregon 650t with GB Discoverer	\$630	€554	£408.33



Garmin Monterra

•Android operating system

•Wi-Fi and Bluetooth connectivity

The Monterra is the first Wi-Fi enabled GPS device that features an Android operating system, allowing you to take your apps with you into the most demanding outdoor conditions. The high-sensitivity, dual-band GPS and GLONASS receiver finds your location quickly and maintains its signal even in challenging locations such as in heavy cover and deep valleys. The built-in 3-axis compass has an accelerometer and gyro and the barometric altimeter provides precise altitude as well as information about changing weather conditions. A UV sensor lets you keep an eye on your sun exposure. 3D Mapmerge lets you combine two maps into a new unique 3D map with visible "texture" such as hills, forests and lakes and the multi-touch screen provides incredible viewing flexibility.



The Monterra can be powered by the internal rechargeable lithium-ion pack or with three AA batteries. It also has a built-in 8MP camera and 1080p HD video camera with LED flash/torch. The internal memory can be extended with a microSD card (up to 64GB, not included).

(Prices exclude VAT)

	\$	€	£
212086 Monterra	\$719	€632	£465.83

MONTERRA	GPSMAP 64	GPSMAP 64S/64ST
7.4 x 15 x 3.6 cm	6.1 x 16 x 3.6cm	6.1 x 16 x 3.6cm
331grams	260 grams	260 grams
Lithium io/3 batteries	2 x AA batteries	2 x AA batteries
22 hours	16 hours	16 hours
YES	YES	YES
Micro SD	MicroSD	MicroSD
2.7 GB	3.5GB	3.5GB / 8GB
European Recreation 1:100k map	Worldwide basemap & TOPO UK and Ireland Light	Worldwide basemap & TOPO UK and Ireland Light / European Recreation 1:100k map
4000	5000	5000
200	200	200
10,000 points, 200 saved tracks	10,000 points, 200 saved tracks	10,000 points, 200 saved tracks
Yes	No	Yes
Yes	No	Yes
Yes	No	Yes
Yes	No	No
8 megapixel	No	No
Yes	Yes	Yes
Yes	Yes	Yes

Garmin eTrex Series

•Expandable memory

•WAAS/EGNOS enabled

eTrex GPS units are tough and versatile and have a 3.6 x 4.3cm screen (monochrome in the eTrex 10, enhanced 65k colour in the eTrex 20 and eTrex 30)



which is readable in even the brightest sunlight. With its high-sensitivity WAAS/EGNOS-enabled GPS receiver and HotFix satellite prediction, eTrex locates your position quickly and precisely and maintains its GPS location even in heavy cover and deep canyons. The new eTrex series is also the first ever consumer grade receiver that can track both GPS and GLONASS satellites simultaneously, making the time it takes for the receiver to 'lock on' to a position approximately 20% faster than when using GPS alone.

The eTrex 20 and 30 also feature a microSD card slot and 1.7 GB internal memory enabling you to load a range of Ordnance Survey maps such as Garmin GB Discoverer which will help you navigate whatever the terrain. The eTrex 30 allows wireless data transfer (to compatible devices) and possesses a 3-axis compass and barometric altimeter.

A soft carry case and dashboard mount are also available to fit all eTrex GPS units.

(Prices exclude VAT)

	\$	€	£
196398 eTrex 10	\$116	€102	£74.99
196541 eTrex 20	\$201	€176	£130.00
196542 eTrex 30	\$247	€217	£160.00
174511 eTrex carry case	\$14	€12	£9.16



Garmin GPSMAP 64 Series

- GPS and GLONASS receiver
- Dual battery option
- MicroSD card slot

GPSMAP 64 series GPS units have a quad helix antenna and high sensitivity GPS and GLONASS receiver. This allows you to locate your position quickly and precisely and will maintain its location even in thick forest and deep valleys as well as near to tall buildings. This handheld GPS is also designed to function reliably in the most challenging outdoor conditions. The large 6.6cm screen is sunlight-readable and the button based interface means that it can be used with gloved hands. It can be powered either by the battery pack supplied, which will last for up to 16 hours, or with conventional AA batteries. This means that it is easy to carry reserve power around with you for longer trips or in case of emergencies. The comprehensive set of navigation features include waypoints, tracks and routes which will allow you to navigate with confidence. A TracBack features lets you find your way home easily.

The GPSMAP 64 and 64s come preloaded with both a Worldwide basemap and TOPO UK and Ireland light map. They have 3.5GB of internal memory which can be used to add extra maps and save your routes, waypoints and locations. The 64st comes with a 1:100k European recreation map and 8GB internal memory. All models have a microSD card slot which allows you to expand the memory even further. They are compatible with GB Discoverer Ordnance Survey 1:25k and 1:50k maps as well as City Navigator NT and BirdsEye Select maps.

All models support paperless geocaching and come with 250,000 preloaded caches with hints and descriptions from Geocaching.com. The 64s and 64st allow wireless data transfer and have a 3-axis compass and barometric altimeter.

Also available as a bundle with the GB Discoverer 1:50k Ordnance Survey maps for Great Britain.

GB Discoverer contains full 1:50k scale Ordnance Survey Landranger map coverage for the whole of Great Britain and includes terrain contours, topo elevations, summits, paths, routable roads and geographical points. NAVTEQ road data provides turn by turn directions to your chosen destination and a digital elevation model allows route profile planning.

(Prices exclude VAT)

	\$	€	£
212129 GPSMAP 64	\$320	€281	£207.50
212164 GPSMAP 64s	\$436	€383	£282.50
212165 GPSMAP 64st	\$513	€451	£332.50
214634 GPSMAP 64 with GB Discoverer	\$411	€362	£266.66
214635 GPSMAP 64s with GB Discoverer	\$514	€452	£333.29
214638 GPSMAP 64st with GB Discoverer	\$604	€531	£391.66



Ricoh WG-4

Camera with GPS

- Waterproof to 14m, Shockproof to 2m
- GPS functionality

The Ricoh WG-4 is one of the toughest compact digital cameras on the market.

Designed with the outdoors in mind, the camera is shockproof, coldproof, dustproof and crushproof and will withstand almost anything that you can throw at it. This version of the WG-4 comes with GPS functionality, allowing for positional data recording of images for geotagging applications - an obvious asset to your fieldwork kit.

Not only is it rugged, the 16MP backlit CMOS sensor gives you unbeatable image quality and colour accuracy. It has an impressive 4x optical zoom and full HD (1080p) video resolution and the digital microscope uses six macro LED's and a detachable macro focus ring for perfect focus of the tiniest subjects, even 1cm away from the camera.

A protective neoprene case is also available for this camera.

(Prices exclude VAT)

	\$	€	£
212799 Ricoh WG-4 with GPS	\$347	€305	£225.00
210147 Ricoh WG-4 Protective Case	\$23	€20	£14.99



GPS Accessories

Power Options

(Prices exclude VAT)

	\$	€	£
193946 AA Alkaline Batteries: Pack of four	\$4	€4	£2.91
196591 AA Lithium-ion Batteries: Pack of four	\$17	€15	£10.82
214594 Garmin Vehicle Power Cable	\$24	€21	£15.79

Protective Cases

(Prices exclude VAT)

	\$	€	£
174511 eTrex Carry Case	\$14	€12	£9.16
214600 Oregon Carry Case	\$15	€14	£9.99
214648 Universal Carry Case	\$13	€11	£8.29

Maps and Memory

(Prices exclude VAT)

	\$	€	£
193956 GB Discoverer OS 1:50K: Northern England	\$154	€136	£99.99
193957 GB Discoverer OS 1:50K: Southern England	\$154	€136	£99.99
193955 GB Discoverer OS 1:50K: Scotland	\$154	€136	£99.99
197217 GB Discoverer OS 1:50K: Full Coverage	\$257	€226	£166.66
193452 City Navigator NT: UK and Ireland	\$44	€38	£28.33
197216 BirdEye Select Retail Card	\$26	€23	£16.66
208158 4GB MicroSD Card	\$8	€7	£4.99

► Silva

Silva compasses provide unsurpassed accuracy in a range of designs for the beginner to the experienced professional.

Silva Starter 8

The Silva Starter 8 is perfect for children or those new to orienteering as its features are both effective yet simple. The rotating capsule has a 5° dial graduation and the baseplate has a small ruler with millimetre scale. The red arrow compass makes navigation quick and easy.



(Prices exclude VAT)	\$	€	£
199541 Silva Starter 8	\$12	€10	£7.49

Silva Field Compass

The original Silva Field Compass has base plate map measuring in mm and scales of 1:50,000 and 1:25,000 compatible with most maps. The compass features DryFlex rubber bezel for improved comfort and grip and a detachable safety release lanyard.



(Prices exclude VAT)	\$	€	£
195003 Silva Field Compass	\$20	€18	£12.92

Silva Expedition 4 Compass

The Expedition 4 has a large baseplate to improve handling on maps and charts in the field. A full-sized baseplate not only makes it easier to hold your compass steady on a map, it's also easier to plot a bearing and take measurements. The magnifier aids attention to fine detail.



(Prices exclude VAT)	\$	€	£
176798 Silva Expedition 4	\$33	€29	£21.66

Silva Mechanical Map Measurer

Multi-scale measurer with metal wheel, used to measure distance in kilometres accurately on maps of all types. To use, set the pointer to 0 then trace the route with the wheel.



(Prices exclude VAT)	\$	€	£
193255 Mechanical Map Measurer	\$21	€18	£13.33

► Ortlieb

Durable and waterproof equipment for all weathers

Ortlieb Map Case

This transparent map case protects your maps from moisture, mud, dirt and UV-light. It is PVC-free and has a neck cord with cord locks and snap hooks.



Dimensions: 270 x 270mm.

(Prices exclude VAT)	\$	€	£
174690 Ortlieb Map Case	\$21	€18	£13.33

Ortlieb A3 Map Case

Tough, durable and waterproof extra-large chart case from Ortlieb. The four point attachment system allows the case to be carried around your neck or safely secured to your rucksack.



(Prices exclude VAT)	\$	€	£
174691 Ortlieb A3 Map Case	\$24	€21	£15.83

Silva Expedition 15 Compass

Accurate and easy to use, the Silva Expedition 15 is a new version of the popular Ranger 15T. It has red/black north/south lines in the capsule for quick and accurate course setting, luminous markings for navigation in the dark, large sighting mirror and rubber grip feet.



(Prices exclude VAT)	\$	€	£
193258 Silva Expedition 15	\$55	€49	£35.83

Silva Expedition 15TDCL-360 Compass

Accurate and easy to use, the Expedition 15TDCL has red/black north/south lines in the capsule for quick and accurate course setting, luminous markings for navigation in the dark, large sighting mirror and rubber grip feet. In addition to the compass it also has a clinometer/declination adjuster.



(Prices exclude VAT)	\$	€	£
193259 Silva Exp 15TDCL-360	\$68	€60	£44.16

Silva Carto Map Case

A fully transparent map case with zip at the bottom to ensure that the map gets the best possible protection against rain and moisture whilst remaining visible.



(Prices exclude VAT)	\$	€	£
193363 Silva Carto Map Case	\$5	€5	£3.33

Silva Map Measurer Plus

This measurer features a metal wheel, digital display, belt clip and lanyard. Measures km, miles and nautical miles. Given a known speed it can also calculate journey time.



(Prices exclude VAT)	\$	€	£
193254 Map Measurer Plus	\$44	€38	£28.33

► Economy Compasses

Perfect for beginners

Waypoint Compass

This compass is simple and affordable. It has a clear base plate with magnifier for easy map reading and an adjustable marching line. Sides of the compass have measurement scales and a lanyard is provided for carrying the compass around the neck or attaching to a pack.



(Prices exclude VAT)	\$	€	£
218108 Waypoint Compass	\$6	€6	£4.16

Map Compass

The Map Compass is ideal for the beginner. The clear base plate makes map reading easy and sides of the plate have measuring scales with different units. The liquid filled compass has a swivel bezel and adjustable marching line. Lanyard included.



(Prices exclude VAT)	\$	€	£
219051 Map Compass	\$8	€7	£4.96

LANDSCAPE SURVEY EQUIPMENT

MEASURING AND MARKING

Fisco Tracker Steel Tape Measure

•Open frame steel tape

The Fisco Tracker tape measure is designed to be robust, with a corrosion-resistant frame, ABS hand grip, and nylon coated steel blade.

(Prices exclude VAT)

176143 30 metres



\$ 59 € 52 £ 38.29

176144 50 metres

\$ 87 € 77 £ 56.66

Fisco Tri-Matic Tape Measure

•Ergonomic chrome finish case

This Tri-Matic tape from Fisco is exceptionally accurate, durable and reliable and is ideal for fieldwork. It has a tough, ergonomic, chrome finished case and the 5 metre polyester coated carbon steel tape has metric and imperial graduations. The automatic blade return has bump stop for end-hook protection and the blade lock is non-slip. With belt clip.

(Prices exclude VAT)

176142 Tri-Matic 5 metres



\$ 19 € 17 £ 12.49

Marking Flags

•Perfect for marking mammal traps

Brightly coloured marking flags that are ideal for marking the edges of survey sites, individual plants, scat, burrow entrances, and feeding remains. The 127mm x 100mm flags are manufactured from non-toxic lead free vinyl and are weatherproof and fade resistant, 533mm wire stem. Available red or yellow in packs of 10 or 100 flags.

(Prices exclude VAT)

199413 Red (Pack of 10) \$3 €2 £1.66

199412 Red (Pack of 100) \$22 €19 £14.16

199419 Yellow (Pack of 10) \$3 €2 £1.66

199418 Yellow (Pack of 100) \$22 €19 £14.16



Biodegradable Marking Tape

•Non toxic, degrades outdoors in 6–24 months

This biodegradable tape can be used for mapping, tagging, roping an area off or any other marking or flagging application. Made from non-woven cellulose derived from wood pulp, it is completely non-toxic and degrades with 6–24 months when left outdoors. Tape is 20mm wide and 75m long and is available in five colours.

(Prices exclude VAT)

206246 Red \$6 €5 £3.75

206250 Yellow \$6 €5 £3.75

206224 Blue \$6 €5 £3.75

206245 Green \$6 €5 £3.75

206249 White \$6 €5 £3.75



FIELD KITS ▶

P168 ▶



BAT DETECTORS ▶

P14 ▶



ENDOSCOPES ▶

P33 ▶



Fisco Ranger RN Tape Measure

BESTSELLER

•Tough open frame glass-fibre tape measure

The Fisco Ranger RN is a ruggedly constructed tape measure, with impact-resistant ABS open frame, the spade handle grip, fibreflex tape with protective coating, smooth twin-roller rewind, long winding lever and easy-grip knob make this tape measure ideal for general purpose or onsite measuring. The tape has metric and imperial divisions.

(Prices exclude VAT)

192534 30 metres

\$ 49 € 43 £ 31.66

192535 50 metres

\$ 72 € 63 £ 46.66



Fisco Roll-Line Ranging Line

•Hard-wearing ranging line for accurate measuring

Professional high quality ranging line with hard-wearing polystyrene frame and a tough UV-resistant braided yellow line which can be locked at any length. The long handle ensures a secure grip and there is a rotating rewind knob on the handle for fast rewinding. The hand grip can also be detached for insertion into a ranging pole. Line length: 100 metres (330 feet), Line thickness: 1.5mm

(Prices exclude VAT)

192648 Ranging Line

\$ 22 € 19 £ 14.16



Measuring Wheel

•Professional road wheel for precision measuring

This measuring wheel is a robust wheel for professional surveying, highway, and site work and is designed to maintain the highest accuracy even in difficult and windy conditions. The tyre is abrasion resistant and measures exactly 22mm in depth so that the wheel will maintain the highest level of accuracy. The cast forks incorporate a pointer for precise recordings and the precision counter has large numbers which can measure up to 10km in one stretch.

(Prices exclude VAT)

196409 Measuring Wheel

\$ 334 € 294 £ 216.66



Ranging Poles

•Ranging poles for measuring and marking

The ranging poles are two metres in length and are available in either wood or steel. The poles have solid steel points and are graduated red and white every 500mm. The 2m Sectional Steel Point Jointed Ranging Pole comes in two 1m sections and the height can be increased by adding extra 1m sections.

(Prices exclude VAT)

193388 2m Wooden Pole

\$ 19 € 17 £ 12.49

196408 2m Steel Pole

\$ 21 € 18 £ 13.33

193387 2m Sectional Steel Pole

\$ 30 € 27 £ 19.58

193389 Spare 1m Section

\$ 19 € 17 £ 12.49



Ranging Pole Ring Clamp Tripod

The Ranging Pole Ring Clamp Tripod can be used in conjunction with any of the ranging poles and is a lightweight support which will clamp poles up to 32mm in diameter.

(Prices exclude VAT)

193390 Ring Clamp Tripod

\$ 44 € 39 £ 28.75

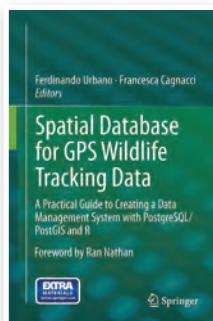


Spatial Database for GPS Wildlife Tracking Data

Ferdinando Urbano *et al.* (2008)

This unique, problem-solving-oriented guide focuses on how to extract the most from GPS animal tracking data and how to harmonise this with animal characteristics, environmental datasets and other bio-logged data. It also shows how the powerful R statistical environment can be integrated into the software platform. Wildlife tracking management issues are also discussed.

212286 HBK \$194 €171 £126.00

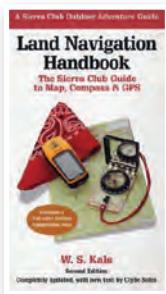


Land Navigation Handbook

WS Kals (2011)

This best-selling manual is designed for anyone who wants to chart a course in the outdoors. Step by step, it teaches the skills that enable you to answer the vital questions: Where am I now? Which way do I head to reach my destination? How far is it? And how long will it take me to get there?

154498 PBK \$22 €19 £13.99

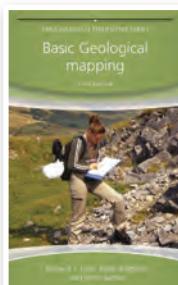


Basic Geological Mapping

Richard J Lisle *et al.* (2011)

An essential basic guide to field techniques in mapping geology. Provides the reader with all the necessary practical information and techniques that they will need while carrying out work in the field. Also covers new developments in technology including Google Earth and the use of GPS.

194418 PBK \$35 €31 £22.50

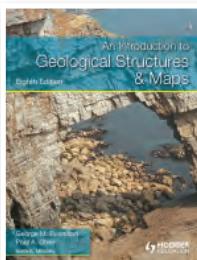


An Introduction to Geological Structures and Maps

George M Bennison *et al.* (2011)

A concise and accessible textbook providing simple structural terminology and map problems which introduce geological structures. Each topic is explained and illustrated by figures, and exercises follow on successive maps.

192704 PBK \$46 €41 £29.99

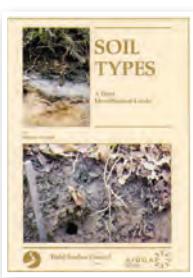


Soil Types: A Field Identification Guide

Stephen Trudgill (1989)

An excellent booklet for use in the field throughout Britain. Contains an introductory key to aid in the identification of major soil groups, followed by a more advanced key to subdivisions of soil types. Also describes and reviews soil formation processes.

11488 PBK \$9 €8 £5.99

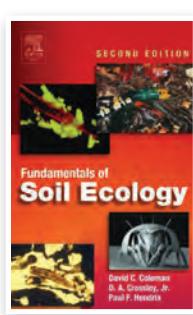


Fundamentals of Soil Ecology

David C Coleman *et al.* (2004)

This fully revised edition shows us the central roles that soils play in ecosystem development and function. The authors emphasise the increasing importance of soils as the organising centre for all terrestrial ecosystems and provide an overview of theory and practice of soil ecology, both from an ecosystem and evolutionary point of view.

147381 PBK \$65 €57 £41.99

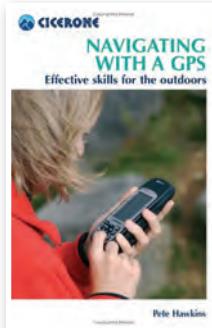


Navigating with a GPS

Pete Hawkins (2008)

This practical guide explains how to get the best from your GPS. It breaks down the jargon into understandable English and takes you through GPS in a clear and structured way. As strong traditional navigational skills are the basis for effective GPS navigation it also gives you a potted summary of how to navigate with a map and compass.

175709 PBK \$12 €11 £7.99

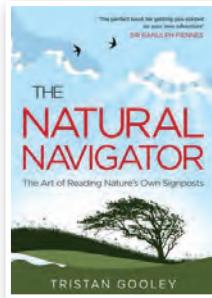


The Natural Navigator: The Art of Reading Nature's Own Signposts

Tristan Gooley (2014)

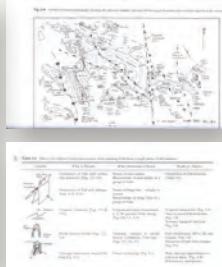
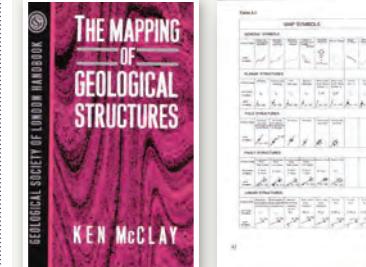
This book blends natural science, myth, folklore and the history of travel to introduce you to the rare and ancient art of finding your way using nature's own sign-posts. Wonderfully detailed and full of fascinating stories, this is a glorious exploration of a rediscovered art.

212112 PBK \$17 €15 £10.99



The Mapping of Geological Structures

Ken McClay (1991)



Detailed mapping and analysis of the structural features of rocks enable the 3D geometry of their structures to be reconstructed. This book is written to show you how to describe, measure and record rock structures such as folds and faults with the emphasis on accuracy, detail and on-going interpretation throughout. The Mapping of Geological Structures gives students and enthusiasts the practical information and guidance which allows their fieldwork to become more rewarding.

11865 PBK

\$35 €31 £22.50

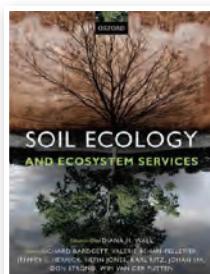
Soil Ecology and Ecosystem Services

Diana H Wall *et al.* (2013)

This valuable reference book leads the user towards an understanding of how the sustainability of soils, biodiversity and ecosystems can be maintained and how humans, other animals and ecosystems are dependent on living soils and ecosystem services. Suitable for upper levels undergraduates, graduates, researchers and professionals.

206507 PBK \$58 €51 £37.50

195931 HBK \$131 €115 £84.99

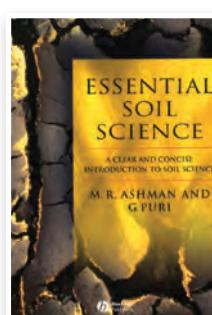


Essential Soil Science: A Clear and Concise Introduction to Soil Science

MR Ashman and G Puri (2002)

This concise textbook is ideal for students taking a short course in soil science as part of a wider degree in environmental science, agriculture or biology. Its clarity of production and focus on key aspects of science and human interaction make it a great guide for the beginner and a must-buy for the library.

76073 PBK \$54 €47 £34.95





BUYERS GUIDE ▶ 2015

Quick and easy soil profiling without the need for laborious digging. Soil augers are used to extract soil samples for environmental research, archaeology and geology.

Combination
General purpose, can
be used with clay and
sandy soils.



Clay Soil
Narrow blades
for minimum
resistance.



Sandy Soil
Broad blades
to keep sample
contained.



Coarse
Sandy Soil
Blades with extra
wings for soils with
very little cohesion.



Riverside
Suitable for hard soils
mixed with fine gravel,
above and below
groundwater level.



Eijkelkamp Standard Soil Augers

• **High-grade hardened steel augers for a multitude of soil types that are strong and wear-resistant**

A simple fixed-handle auger for extracting soil samples. The auger is 1.2m long with a metal shaft and T-bar handle with rubber grips at the top. It is made of high-grade non-toxic hardened steel. For general purpose soil sampling a combination auger is recommended. This model gets a reasonable hold of sandy material, but still allows clay to be removed from the auger head.

		\$	€	£
(Prices exclude VAT)				
193667	Combination Soil 7cm	\$174	€153	£112.50
193668	Combination Soil 10cm	\$231	€203	£150.00
193669	Clay Soil 7cm	\$158	€139	£102.50
193670	Clay Soil 10cm	\$198	€174	£128.33
193671	Sandy Soil 7cm	\$226	€199	£146.67
193672	Sandy Soil 10cm	\$292	€257	£189.17
193673	Coarse Sandy Soil 7cm	\$283	€249	£183.33
193674	Riverside 7cm	\$225	€198	£145.83
193675	Riverside 10cm	\$289	€254	£187.50
193676	Stony Soil 7cm	\$206	€181	£133.33
193677	Stony Soil 10cm	\$332	€292	£215.00
193678	Spiral 4cm	\$264	€232	£170.83



Peat Probe

The peat probe enables you to determine the depth of peat deposits quickly and accurately. The Peat Probe is light and strong, and measures 120cm in length.

92cm extension rods are also available.

		\$	€	£
(Prices exclude VAT)				
195453	Peat Probe	\$82	€72	£53.32
195454	92cm extension rod	\$72	€63	£46.66



Soil Sampling Tube

This economical galvanized steel soil sampling tube provides 2.5cm diameter soil cores for testing or examination through the cut-away side. It measures 30cm in length and has a saw-toothed tip to aid in soil extraction.

		\$	€	£
(Prices exclude VAT)				
202281	Soil Sampling Tube	\$49	€44	£32.08



Haglöf Soiltax Soil Sampler

These soil samplers will take a 10mm diameter core of soil and have a curved handle at the top. They are available in two sizes which take a 70cm or 90cm length sample.

		\$	€	£
(Prices exclude VAT)				
206264	70cm	\$102	€89	£65.83
206265	90cm	\$114	€101	£74.17



Eijkelkamp Extendable Soil Augers

• **Interchangeable auger components to create an auger to your exact specification**

Auger heads, handles and extension rods sold separately so that you can make up a complete auger to your particular requirements. The auger heads are interchangeable so you need only buy and carry one handle. Extension rods can then be inserted between the head and the handle to make a longer auger. All parts have bayonet fittings and a carry bag is available to increase portability.

Auger Heads

		\$	€	£
(Prices exclude VAT)				
198590	Combination Soil 7cm	\$186	€164	£120.83
202302	Combination Soil 10cm	\$238	€209	£154.17
202303	Clay Soil 7cm	\$177	€156	£115.00
202304	Clay Soil 10cm	\$225	€198	£145.83
202316	Sandy Soil 7cm	\$230	€202	£149.17
202317	Sandy Soil 10cm	\$302	€266	£195.83
202332	Coarse Sandy Soil 7cm	\$307	€270	£199.17
202333	Coarse Sandy Soil 10cm	\$405	€356	£262.50
202308	Riverside 7cm	\$230	€202	£149.17
202309	Riverside 10cm	\$315	€277	£204.17
202328	Stony Soil 7cm	\$243	€214	£157.50
202329	Stony Soil 10cm	\$334	€294	£216.67
202334	Spiral 4cm	\$256	€225	£165.83
202336	Stone Catcher	\$212	€186	£137.53
202339	Soft Soil 7cm	\$492	€433	£319.17
202338	Gouge 0.5m	\$225	€198	£145.83
202343	Piston Sampler 75cm	\$662	€582	£429.17
202344	Piston Sampler 2m	\$1,157	€1,017	£750.00



Auger Handles

		\$	€	£
(Prices exclude VAT)				
202350	Soil Auger Handle	\$114	€101	£74.17
202354	Soil Auger Ergonomic Handle	\$199	€175	£129.17

Auger Extension Rods and Bag

		\$	€	£
(Prices exclude VAT)				
202355	Extension Rod 50cm	\$135	€119	£87.50
198591	Extension Rod 100cm	\$139	€122	£90.00
198613	Carrying Bag	\$321	€282	£208.33

Stony Soil
For soils with large gravel content or small stones.



Spiral
For the penetration of hard layers, operates like a corkscrew.



Stone Catcher
Removes loose stones from bore holes.



Soft Soil Auger
Sensitive to torsion and suitable for very soft clay soils.



Gouge
For sampling soft cohesive layers such as wet clay or peat with minimal disturbance.



Piston Sampler
For sampling less cohesive soil layers below the groundwater table.



Extendable Auger Set Heterogeneous Soils

•Comprehensive set for sampling layered soil profiles

For sampling soils with a layered profile (heterogeneous soils) several different auger types

will be required. With the Eijkelkamp Auger Set for Heterogeneous Soils it is possible to obtain layered soil profiles to a depth of five metres, without great physical effort. The set can be used for taking auger samples above the water table in all soils, and below the water table in cohesive soils. The auger set has 7cm diameter auger heads with bayonet connections and includes: Four types of Edelman auger head (clay, sand, coarse sand and combination), a riverside, stony soil, spiral, piston sampler and gouge auger head. The set also contains: extension rods, a peat probe, a push/pull handle and maintenance equipment. The set is supplied in an aluminium transport case.

(Prices exclude VAT)

202360 Extendable Auger Kit



\$ 3,856 € 3,389 £ 2,499.17

Eijkelkamp Ergonomic Soil Auger Set

•Ergonomically designed soil auger set for heterogeneous soils

The Eijkelkamp Ergonomic Soil Auger Set for heterogeneous soils is used to carry out manual sampling in a variety of different soils for geological, archaeological and environmental research. The auger provides soil samples to a depth of five metres and most soil types above and below the groundwater table can be sampled. The ergonomic ratchet handle maintains the wrists of the user in a neutral position to minimise strain. The set includes: ergonomic handle, four 50cm extension rods, four Edelman auger heads (clay, sand, coarse sand and combination), a riverside, stony soil, spiral, and 30mm diameter gouge auger head, a 20mm bent spatula, coupling sleeves, maintenance equipment, a carrying bag and an aluminium carrying case with padlock.

(Prices exclude VAT)

202361 Ergonomic Auger Kit



\$ 3,665 € 3,221 £ 2,375.00

Soil testing - Soil testing kits allow gardeners and ecologists to test the acidity and balance or availability of nutrients in soil



Lutron Professional Soil Moisture Meter (PMS-714)

•Measures 0–50% moisture content in soil

The PMS-714 has a measurement range of 0 to 50% with 0.1% resolution. A robust ABS-plastic housing makes it ideal for use in the field and a built-in LCD screen makes it easy to use. Also has a max/min function and low battery indicator. Powered by four AAA batteries.

(Prices exclude VAT)

211596 Lutron Soil Moisture Meter \$161 €141 £104.16



Basic Soil/Agriculture Test Kit

•Easy to use multi-functional soil testing kit to test the balance of available nutrients

This soil kit includes everything you need to measure the four main parameters necessary for strong plant growth. Nitrogen, phosphorous, potassium and pH. The concentration of each element is given in an easily-understood trace and the kit provides 10 tests of each of the parameters. Plenty for the average garden.

(Prices exclude VAT)

180222 Basic Test Kit \$39 €34 £24.99



Lutron Soil pH Meter (PH-220S)

•With spear tip probe on 1 metre cable

The PH-220S consists of a handheld digital meter with LCD screen and a spear tip probe on a 1m cable. It has a measurement range of 0 to 14 pH with a resolution of 0.01 pH. Powered by one AAA battery. pH 4 / pH 7 buffer solutions included.

(Prices exclude VAT)

215300 Lutron Soil pH Meter \$89 €78 £57.49

BESTSELLER

Professional Soil/Agriculture Test Kit

•Large scale soil nutrient testing kit for professional gardeners



This soil kit measures the balance of nitrogen, phosphorous, potassium and pH of soil and includes sufficient reagent quantities for 25 tests of these four elements. The kit is also supplied with an extraction solution to give immediate results. Ideal for the busy professional gardener, or garden centre.

(Prices exclude VAT)

180223 Pro Test Kit \$89 €79 £57.92

Soil Thermometer

•Sturdy soil thermometer for surveying, garden or greenhouse

This spirit-filled soil temperature probe is housed in a strong plastic case and has a bright coloured top for easy removal. A useful garden tool for measuring the temperature of soil or compost.



(Prices exclude VAT)

185647 Soil Thermometer \$13 €11 £8.33

Hanna Soil Conductivity and Temperature Pocket Meter

•Measure nutrient availability with this pocket conductivity meter

This pocket tester measures soil conductivity and temperature. Soil conductivity is related to salinity and indicates the quantity of available nutrients. With a temperature sensor in the probe, readings are automatically temperature compensated. Conductivity range can be calibrated in an aqueous solution which is also available. The meter is supplied with 1.5V batteries and instructions.



(Prices exclude VAT)

193400 Pocket Meter \$134 €118 £87.08

180230 Calibration Solution \$30 €26 £19.16

► **Cluson** - The choice of professionals for all night surveying and outdoor work



Cluson Smartlite SM126

•1,000,000 candlepower 1km spot beam

A well-balanced lamp with comfortable handle, easy-reach switch and a streamlined, reinforced plastic case. A 1km spot beam is produced from the hand-focused xenon bulb and a secondary bulb is fitted. Supplied with mains charger. The Smartlite SM126 is also available in two models with rechargeable lithium-ion batteries: 9.2Ah and 18.4Ah with battery life of 2.5 and 4.5 hours respectively (with continuous use on main beam). The SM126 lithium-ion versions include a shoulder strap.

		\$	€	£
180532	SM126 Smartlite	\$123	€108	£80.00
197953	SM126 Li-Ion 9.2Ah	\$194	€171	£126.00
197960	SM126 Li-Ion 18.4Ah	\$293	€258	£190.00



Cluson CB2 Clubman Deluxe Li-Ion High-Power Lamp

•Longer lasting battery with reduced size and weight

All the great features of the CB2 combined with the reduced size and weight but increased battery life of a lithium ion battery. The 9.2Ah version can now produce the high beam for 2.25 hours continuously on a single charge whilst the 18.4Ah version will run for four hours. The total weight of the CB2 has also been reduced considerably with the 9.2Ah version now at 1.65kg and the 18.4Ah version at 2.2kg whilst the size of the units has been reduced by approximately 30%.

Supplied with mains charging lead and shoulder strap.

		\$	€	£
(Prices exclude VAT)				
196252	CB2 Clubman 9.2Ah	\$230	€202	£149.17
196253	CB2 Clubman 18.4Ah	\$321	€282	£208.33

BESTSELLER



Cluson Clubman CB1 / CB2 High-Power Lamp [B]

•High power rechargeable lamp with separate lamp head

The versatile Clubman lamp has a xenon bulb and quick-charging rechargeable battery. It produces a white beam, which can be directed using the pivoting head and can be hand held or mounted on the optional telescopic pole. The CB1 has a 20W bulb giving 500,000 candlepower. The CB2 is more powerful with a 50W bulb providing 1,000,000 candlepower. Supplied with mains and vehicle charging leads and shoulder strap.

Code		\$	€	£
180535	CB1 Clubman	\$127	€112	£82.50
180536	CB2 Clubman	\$148	€130	£95.83
180544	Telescopic Pole (M25)	\$31	€27	£20.00

CLUSON ACCESSORIES

CODE	TITLE	CB1	CB2	CB2 LI-ION	SM126/PC	SM64	CLU10/11	PRICE EX VAT
FILTERS								
193113	Cluson Pop-In Filter Set (A31)	•	•	•	•	•		£26.00
193487	Cluson Multi-Directional Filter - Red	•	•	•	•	•		£18.00
193488	Cluson Multi-Directional Filter - Amber	•	•	•	•	•		£18.00
193489	Cluson Multi-Directional Filter - Green	•	•	•	•	•		£18.00
193490	Cluson Multi-Directional Filter - Blue	•	•	•	•	•		£18.00
180537	Infra Red Filter (A5)	•	•	•	•	•		£27.49
BULBS								
180547	Clubman CB1 20W Bulb (BU11)	•						£6.00
180546	Clubman Deluxe & SM126 50W Xenon Bulb (BU23)		•	•				£6.67
180548	Secondary Bulb for Smartlite/Clubman 10W Bulb (BU9A)	•	•	•	•			£4.58
180545	Clu-liter 6V Krypton Bulb (BU3)							£2.75
BATTERIES								
193107	Cluson 12V 2.8Ah Battery (B7)		•					£15.00
193111	Cluson 12V 7Ah Battery (B8)		•	•	•			£18.00
193112	Cluson 6V 2.8Ah Battery (B4)						•	£11.00
198110	Cluson 12V 9.2Ah Lithium-Ion Battery (PP16)							£130.00
198108	Cluson 12V 18.4Ah Lithium-Ion Battery (PP20)							£190.00
CHARGERS								
196726	Clubman Mains Charger (CH5L)	•	•	•	•			£14.58
180543	Clubman Car Charger (L3)	•	•	•	•			£6.00
180538	Clu-liter Mains Charger (CH4)						•	£13.00
180539	Clu-liter Car Charger (CH16A)						•	£9.00

The Light Fantastic

•The brightest compact LED lamp on the market

At only 460g (including batteries) this torch is extremely lightweight and produces an impressive 500m beam. The LED bulb has a life of 50,000 hours and the high impact case is rugged enough to deal with life out in the field. A built in tilting stand makes it easy to direct light where it's needed. Comes with a shoulder strap, mains charger and vehicle charger.

(Prices exclude VAT) \$ € £

202512 The Light Fantastic \$116 €102 £75.00



Cluson CLU10 / CLU11 Clu-liter Classic Lamp

•Popular lightweight rechargeable lamp

This excellent rechargeable lamp provides exceptional value for money. Compact and comfortable, it utilises powerful Krypton bulb technology to produce a 300m spot beam. The robust outer case is designed to withstand the hardest of knocks, and the waterproof switch makes it suitable for use in most conditions. It has a 100,000 candlepower beam which will last about four hours. Model CLU10 comes with mains charger, CLU11 with vehicle charger. Alternative chargers and filters also available (see Cluson Accessories).

(Prices exclude VAT) \$ € £

180533 CLU10 & Mains Charger \$50 €44 £32.49

180534 CLU11 & Vehicle Charger \$44 €38 £28.33



CLU13 Clu-liter Classic LED

•Economical torch with 500m beam

The Clu-liter Classic LED is an economical rechargeable torch with a 1000 lumen, 500m beam. Includes CREE LEDs which are incredibly bright and will never need changing. This torch will run for approximately five hours on one charge and recharge time is six hours.

(Prices exclude VAT) \$ € £

212902 CLU13 LED \$42 €37 £27.15



Sportlight 100W Lamp

•Produces a powerful 800m beam

This powerful hand-held lamp has a 210mm lens and 100W bulb that will produce an 800m beam. It is ideal for observing wildlife and for use during night time surveys.

The power output of the light can be easily controlled - choose between torch light, half power and full beam. The polycarbonate lens can also be adjusted between spotlight and floodlight beam. A range of Tracer lithium batteries are available to power this lamp (purchased separately). Red and infrared filters are also available for this lamp.

(Prices exclude VAT)

210355 Sportlight 100W Lamp	\$148	€130	£95.79
198628 8Ah Lithium Battery Pack	\$154	€136	£99.96
198630 10Ah Lithium Battery Pack	\$193	€169	£124.96
198631 14Ah Lithium Battery Pack	\$231	€203	£149.96
198632 22Ah Lithium Battery Pack	\$296	€260	£191.63
210357 Red Filter	\$24	€21	£15.79
210358 Infrared Filter	\$41	€36	£26.63



Cluson Smartlite

SM64 - 6V

•Compact and lightweight torch with 500,000 candlepower beam

Lightweight yet incredibly robust torch for the most demanding of field applications. The powerful half million candlepower beam from the xenon bulb is complemented with a secondary lower power bulb for less demanding tasks or when you need to conserve battery life. Supplied with 6V mains charger.

(Prices exclude VAT) \$ € £

180530 SM64 Smartlite	\$85	€75	£55.00
193136 Cluson SM64 Battery (B5)	\$15	€14	£10.00
180550 Main Bulb (BU28)	\$10	€9	£6.67
180549 Secondary Bulb (BU12)	\$9	€8	£6.00
180540 Mains Charger (CH3)	\$20	€18	£13.00
180541 Car Charger (CH6A)	\$14	€12	£9.00



SM-LED Smartlite

•Handheld, rechargeable lamp with 500m beam

The SM-LED Smartlite is an LED version of the popular Smartlite lamp. This LED system means that the torch benefits from a lifetime bulb and has improved battery efficiency. It produces a 1000 lumen beam which will reach up to 500m. Run time of the torch is approximately four hours. Mains and vehicle chargers included.

(Prices exclude VAT) \$ € £

218424 SM-LED Smartlite	\$108	€95	£70.00
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Olight X6 Marauder Lamp

•5000 lumen output and 640m maximum beam

The Olight X6 Marauder has a 500 lumen output and 640m maximum beam but is also incredibly compact and lightweight. Three main modes (low, medium and high) are available and a powerful strobe mode is ideal for use in emergency situations. All of these modes are controlled with a single button which is perfectly situated on the handle below your thumb.

The light is produced using six CREE LED's. Powered using the rechargeable lithium battery pack provided, this lamp will provide light for two hours on the highest setting and an impressive 40 hours on low mode. The battery pack comes with a sturdy belt clip and shoulder strap and also has a power indicator.

(Prices exclude VAT) \$ € £

210367 Olight X6 Marauder Lamp	\$456	€401	£295.79
210368 Spare Battery	\$116	€102	£74.96

HEAD TORCHES

► Petzl Head Torches

High performance rugged headlamps suitable for leisure or professional use



Petzl Tikka Headlamp

•Economical and easy to use torch

The Petzl Tikka has two lighting modes: a wide beam for close range vision and a brighter, longer range light for when you're moving. Maximum brightness is 80 lumens with a range of 50m. A push button allows for easy, quick lighting mode selection and a phosphorescent reflector makes it easy to find the lamp in the dark. Powered by 3 x AA batteries (included).

(Prices exclude VAT)

214268 Petzl Tikka

\$ 39

€ 34

£ 24.99



Petzl Tikka+ Headlamp

•Ideal for most types of outdoor activities

The Petzl Tikka+ has several lighting modes for different situations. Choose from proximity lighting, lighting for movement, boost mode, red lighting or strobe mode. The battery life management features allows you to easily anticipate battery replacement and will switch to reserve mode when almost drained. It will also switch to red lighting when batteries are nearly empty to preserve a minimal amount of lighting. Powered by 3 x AA batteries (included).

(Prices exclude VAT)

214218 Petzl Tikka+

\$ 58

€ 51

£ 37.50



Petzl TacTikka+ Headlamp

•Perfect for bat workers

The TacTikka+ has a red light mode which allows for the preservation of night vision, making it ideal for bat workers. Choose from several lighting modes, each optimised for either close range vision or movement. Also includes a boost mode, which allows temporary access to a brightness of 140 lumens (60m), and a strobe mode for signalling in an emergency. Maximum brightness is 110 lumens with a range of 50m. Burn time management means that the torch automatically switches to reserve mode when batteries are low and to red light when almost drained. Powered by 3 x AA batteries (included).

(Prices exclude VAT)

214270 Petzl TacTikka+

\$ 51

€ 45

£ 33.33



Petzl Headlamp Accessories

(Prices exclude VAT)

193138 Petzl Tikka Pouch

\$ 12

€ 10

£ 7.49

193114 Petzl 6V Halogen Bulb for Duo LED 5

\$ 8

€ 7

£ 4.99

193115 Petzl Rechargeable Battery Pack for Duo LED 5

\$ 59

€ 51

£ 37.92

193116 Petzl Battery Pack Mains Charger

\$ 94

€ 82

£ 60.83

193117 Petzl Battery Pack Vehicle Charger for Duo LED 5

\$ 46

€ 41

£ 29.99



Petzl Myo RXP Headlamp

•Programmable headlamp

The Myo RXP is the first Petzl headlamp with regulated and programmable lighting levels to adapt light output precisely.

There are three lighting modes, for each of which the user can set the power from 8 to 140 lumens, allowing the lamp to be programmed for the type of activity and the length of use. These headlamps have Boost mode (max 205 lumens with max beam distance 90m) and a flashing mode that can be programmed. They are compatible with lithium batteries and have a wide angle lens option to produce a focused or diffuse beam. These torches take 3 x AA batteries, have a comfortable adjustable headband and are IPX4 water resistant.

(Prices exclude VAT)

196540 Petzl Myo RXP Headlamp

\$ 77

€ 68

£ 49.99



Petzl e+Lite Ultra-Compact Emergency Lamp

•Ideal addition to your emergency kit

This ultralight headlamp has an integrated ZIP retractable cord making it incredibly compact. It has up to 10 years shelf life and can be stored with the batteries inside. It is also waterproof and can be used in both freezing and explosive atmospheres. A choice of white, red, continuous or strobe lighting allow you to be seen and to signal an emergency. Powered by 2 x lithium CR2032 batteries (included).

(Prices exclude VAT)

209559 Petzl e+Lite

\$ 28

€ 25

£ 18.33



Petzl Duo LED 5 Waterproof Head Torch

•Rugged professional headlamp

The Petzl Duo 5 has a five LED (40 lumens, 28m range) light source for brighter close-range work and a traditional halogen lamp for longer distance work (up to 100m). The halogen light source has adjustable focus to adjust the width of the beam.

The Duo 5 is waterproof down to 5m (IPX8) and has an adjustable ergonomic head strap system. It is supplied with a spare halogen bulb and replacement bulbs and battery packs can be purchased for this torch. The Duo Belt LED 5 model allows the wearer to carry a battery pack on the belt.



(Prices exclude VAT)

176304 Petzl Duo LED 5

\$ 82

€ 72

£ 53.33

193119 Petzl Duo Belt LED 5

\$ 84

€ 73

£ 54.16

Petzl Spelios Caving Helmet with Hybrid Lighting

•With attached Duo LED 14 headlamp

The Spelios Caving Helmet is a durable and comfortable helmet which comes with an attached Duo LED 14 headlamp. This lamp has a hybrid light source with a halogen bulb for a powerful focused beam and 14 LEDs for a wide flood beam. Maximum, optimum and economic modes are available. Maximum lighting distance is 100m and the lamp is powered by 4 x AA batteries (included).

Two sizes of helmet are available to fit head circumferences of 48–56cm (size 1) or 53–61cm (size 2). The helmet is adjustable beneath the chin and around the back of the head.



(Prices exclude VAT)

216158 Petzl Spelios: Size 1

\$ 186

€ 164

£ 120.83

216159 Petzl Spelios: Size 2

\$ 186

€ 164

£ 120.83

Intensity 24 Micro Head Torch



•Lightweight and weatherproof

The Intensity 24 Micro Head Torch is extremely compact, weighing only 30g with batteries. It is weatherproof and has five different lighting modes with both white and red LEDs to suit all situations. Powered by 2 x CR2032 batteries (included) and supplied with a handy pocket sized bag.

(Prices exclude VAT)

217870 Intensity 24 Micro Head Torch

\$17 €15 £10.79

Byte LED Headtorch

•Red & White LEDs

The Byte LED Headtorch is compact yet powerful. An additional red LED ensures that you will save your night vision when it is needed. It has a number of other handy features including an easily accessible battery compartment, large push button switch and a battery lock function which prevents the torch being switched on accidentally. Powered by 3 x AAA batteries (included) which will last for up to 96 hours with the white LED and 146 hours with the red LED. Water resistant and weighs just 64g with batteries.

(Prices exclude VAT)

218100 Byte LED Headtorch

\$24 €21 £15.79



LED 3 Headlight

•Impressive battery life

This super-bright LED headlight has three LEDs and an impressive battery life of 120 hours. It produces a spot light beam for focused illumination. Powered by three AAA batteries (included) and is water resistant. It has a comfortable elasticated strap which fits both around and over the top of the head for improved stability. The angle of the beam can be adjusted through 90°.

(Prices exclude VAT)

219849 LED 3 Headlight

\$11 €10 £7.08



Super Beam Headlight

•Rear red light and adjustable beam

This headlight has three main (white) light options: high, low or flashing and also has red, blue and green functions. A flashing red option is useful in emergency situations. It also has a rear light on the battery pack which is located on the back of the head. The width of the main beam can be adjusted using the slider beneath the lens. Powered by three AA batteries (included).

(Prices exclude VAT)

211470 Super Beam Headlight

\$35 €30 £22.49



Intensity Glow Markers

•Ideal for marking kit during nocturnal surveys

These Intensity Glow Markers can be attached to any object that you need to be able to locate in the dark. They contain photoluminescent crystals which absorb light and emit a luminous glow in the dark. Each marker will glow for around 12 hours and is supplied with a cable ring attachment. Available in five different colours. Dimensions: 45m x 15mm x 7mm.

(Prices exclude VAT)

	\$	€	£
217875 Blue	\$6	€5	£3.75
217876 Clear	\$6	€5	£3.75
217877 Green	\$6	€5	£3.75
217878 Orange	\$6	€5	£3.75
217879 Pink	\$6	€5	£3.75



Intensity 230 Head Torch

•High powered torch with rear battery pack

The Intensity 230 is a high powered 230 lumen head torch with four lighting modes: high, medium, low or flashing. The beam can also be focused depending on your requirements with a floodlight or spotlight setting. A red LED on the battery casing ensures that you are visible from the rear. Powered by 3 x AA batteries (included).

(Prices exclude VAT)

217872 Intensity 230 Head Torch

\$28 €25 £18.29

Inova Microlight

•LED keyring torch

The Microlight is a bright LED light which is small enough to fit on your key ring. It has a tough polycarbonate body which is water and impact resistant (IPX4) and has a strong stainless steel clip for attachment to a keyring, bag or zipper. Four lighting modes give you the ability to choose the brightness of the light (high/low) or select a strobe or signal option. The brightest mode has a range of up to 15.2m (white LED only) and the signal can be seen for up to a mile. Run time is 22 hours in low mode or 10 hours in high mode. Available with a black case and white LED or with a red case and red LED. Powered by two 2-2016 lithium batteries (included).

(Prices exclude VAT)

219052 Black case, White LED

\$8 €7 £5.42

219053 Red case, Red LED

\$8 €7 £5.42



Light Sticks (Pack of 2)

•Single use light sticks

These light sticks are primarily designed as emergency signalling devices. Each stick will last for up to 12 hours and every pack contains one green and one orange stick. A lanyard is included with each light stick. Dimensions: 2cm x 2cm x 11cm.

(Prices exclude VAT)

217873 Light Sticks

\$6 €5 £3.76



BATTERIES

Alkaline Batteries

(Prices exclude VAT)



193911 AAA - 4 pack

\$5 €4 £2.92

193946 AA - 4 pack

\$4 €4 £2.91

217052 C cell - 2 pack

\$4 €3 £2.49

193909 D cell - 2 pack

\$5 €4 £2.92

Rechargeable Batteries

(Prices exclude VAT)



196584 AAA - 4 pack

\$12 €10 £7.49

196585 AA - 4 pack

\$15 €14 £9.99

196586 C cell - 2 pack

\$13 €11 £8.33

196587 D cell - 2 pack

\$13 €11 £8.33

Lithium-Ion Batteries

(Prices exclude VAT)



196590 AAA - 4 pack

\$17 €15 £10.82

196591 AA - 4 pack

\$17 €15 £10.82

Charger

(Prices exclude VAT)



196588 Duracell Multi Battery Charger

\$33 €29 £21.66



Cluson ML7 Super Bright LED Torch

•Pocket-sized powerful torch

This is a small but powerful torch with a remarkable beam for its size of up to 125m. Runs from a rechargeable Li-ion battery and lasts for up to three hours on high beam or six hours on low. Spare Li-ion batteries available separately. Supplied with lamp, battery, mains and vehicle charger and wrist strap.

(Prices exclude VAT)

	\$	€	£
194810 Cluson ML7 LED Torch	\$46	€41	£30.00
196256 Replacement Li-ion Battery	\$19	€16	£12.00



Cluson ML8 Pro Spot Torch

•With low and high beam modes

The Cluson ML8 is an LED rechargeable hand torch with a powerful 350m beam. High and low beam modes allow you to conserve power when you need to and battery life is an impressive 20 hours on low beam mode. Powered by a Li-ion battery. Mains charger included.

(Prices exclude VAT)

	\$	€	£
216173 Cluson ML8 Pro Spot Torch	\$85	€75	£55.00
196256 Replacement Li-ion Battery	\$19	€16	£12.00

Cluson ML3000 Pro Scanner 3000 Torch

•Robust and durable torch with 300m beam

The Cluson ML3000 has a 300m beam but has increased lumens and a greater diameter meaning that it can light a larger area than the ML1000. It is powered by two rechargeable Li-ion batteries and is also supplied with an extension tube and extra battery to increase duration when required. Recharge time is 12 hours.



(Prices exclude VAT)

	\$	€	£
216450 Cluson ML3000 Torch	\$129	€113	£83.33
196256 Replacement Li-ion Battery	\$19	€16	£12.00

Peli 2365 Obedient LED Torch

•Hard wearing, flexible torch

Directional hands-free torch which will fit into smaller spaces than your average torch due to its small head and long, neck. The magnetic base can be attached to any metal surface, and the 38cm flexible neck can be manipulated to direct the 49 lumens of LED light in the direction that you want it. The push button on/off switch is conveniently positioned in the tail and the torch has a run time of up to seven hours. Comes with a lifetime guarantee.



(Prices exclude VAT)

	\$	€	£
199563 Peli 2365	\$59	€52	£38.29



Intensity 560 Torch

•560 lumen bulb for maximum area illumination

The Intensity 560 Torch is made from lightweight alloy and has a 560 lumen LED bulb which allows you to illuminate an incredibly large area. This makes it ideal for emergency or search and rescue use. Range of the beam is 165m and battery life is up to 20 hours - enough to keep you going all night. Powered by two Lithium CR123 (included).

(Prices exclude VAT)

	\$	€	£
189258 Intensity 560 Torch	\$54	€47	£34.99



Cluson CLUB-1 Pistol Style Rechargeable LED Torch

•250m beam and impressive three hour battery life

The CLUB-1 is a pistol-style rechargeable LED torch. A single high powered CREE LED and a focused 60mm diameter reflector combine to create an amazing white spot beam. Maximum duration is three hours and recharge time is eight hours. Supplied with a wrist strap, mains charger and vehicle charger.

(Prices exclude VAT)

	\$	€	£
196255 Cluson CLUB-1 LED Torch	\$76	€67	£49.17



Cluson PLR-400 Pistol Light

•Produces 1000 lumen, 400m beam

This lightweight and powerful hand torch has a pistol grip design, making it comfortable to hold and easy to direct the light where it is needed. The torch has a brightness of 1000 lumens and an impressive range of 400m. Powered by a rechargeable internal lithium-ion battery which will provide light for 3 hours (continuous).

(Prices exclude VAT)

	\$	€	£
216728 Cluson PLR-400 Pistol Light	\$86	€76	£56.00

Freeplay Sherpa Flashlight**•Emergency Wind-up Torch**

The Freeplay Sherpa is a compact, rugged flashlight ideal for everyday use and with a wind-up system for emergencies. One minute of winding provides approximately 30 minutes battery life and the winder has a useful LED to indicate optimum winding speed. The Sherpa can also be charged with the included mains charger allowing extended use of the bright beam. The lamp contains two independent filaments which provide two brightness options: ultra-bright and energy saving.

(Prices exclude VAT)

217071 Freeplay Sherpa

\$ 30 € 26 £ 19.16

**Freeplay Mini-Sherpa Flashlight****•Rechargeable by USB or by winding-up**

The Mini-Sherpa is a compact LED torch with a built-in battery pack and crank drive. The crank mechanism generates the necessary electricity for charging the battery to power the "triple-chip" 8mm LED. A one minute wind provides approximately 20 minutes of battery life. The torch can also be charged by USB and a four hour charge will provide approximately 11 hours of battery life.

(Prices exclude VAT)

217069 Freeplay Mini-Sherpa

\$ 21 € 18 £ 13.29

**AREA LIGHTING****Cluson Cordless LED Rechargeable Floodlight****•Lightweight and portable area lighting**

These cordless LED rechargeable floodlights provide a compact and lightweight portable area lighting solution. The head pivots backwards and forwards through 120°, giving you perfect positioning and directional control and they are designed with a sturdy base and carrying handle. Available in a 10W, 20W or 30W model. Suitable for use both indoors and outdoors (IP65 rated).

(Prices exclude VAT)

216452 Cluson Cordless LED Floodlight: 10W

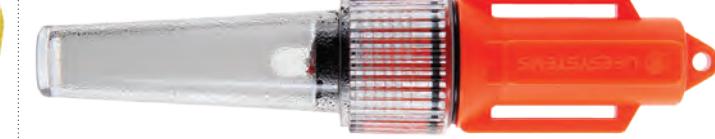
\$ 77 € 68 £ 50.00

216453 Cluson Cordless LED Floodlight: 20W

\$ 153 € 134 £ 99.00

216454 Cluson Cordless LED Floodlight: 30W

\$ 161 € 141 £ 104.17

**Emergency Strobe****•Visible up to one mile away**

The Emergency Strobe is a lightweight LED lamp that emits bursts of light, visible at a distance of up to a mile. This makes it ideal for getting the attention of emergency services when injured or lost at night or in poor weather conditions. On/off is via an easy twist mechanism and the base of the lamp has a hole for hanging. The lamp will produce 120 flashes per minute and is waterproof to 300 metres. Powered by 2 x 1/2 AA batteries (included) and battery life is up to 100 hours. Weight: 60g with batteries.

(Prices exclude VAT)

217869 Emergency Strobe

\$ 42 € 37 £ 27.49

Peli 2410 Nemo Underwater Torch**•Rugged and waterproof**

This compact, lightweight torch is designed for use underwater. The maximum light output is 72 lumens and the maximum beam range is 102m. Battery life is 7.15 hours. Powered by 4 x AA batteries (included) and comes with a lifetime guarantee.



(Prices exclude VAT)

199535 Peli 2410 Nemo

\$ 105 € 92 £ 67.92

Cluson LED Portable Lighting System**•2000 lumen portable lighting system**

This LED lighting system is compact and portable. Four lighting modes are available (high, medium, low and strobe) and it has eight LEDs which produce 2000 lumens of light on the brightest setting. The lamp is powered by a 12V 8Ah battery which is rechargeable using either a mains or vehicle charger (both included) and the battery is contained in a waterproof (IP65) carry case which has a handle for easy transportation. The lamp head is attached to a telescopic handle which will extend to a length of 80cm. The angle of the lamp is fully adjustable and it can also be removed for handheld use.

(Prices exclude VAT)

211664 Cluson LED Portable Lighting System



\$ 186 € 164 £ 120.83

**Flood-a-lite Lithium-ion Portable Floodlights****•With adjustable tripod system and waterproof battery pack**

Flood-a-lite lamps are powered by lightweight Li-ion batteries and are available in either a 30W (3000 lumens) or 50W (5000 lumens) version. They have ultra low power consumption and an impressively long lifespan. The tripod system allows you to extend your light source to a height of 1.73m and both height and angle are fully adjustable. Retractable spikes on the feet make it suitable for use in almost any environment. The main light can be removed from the tripod if required and the batteries are housed in a robust, waterproof carry case. The tripod is also supplied with a shoulder bag. 9.2Ah and 18.4Ah versions are available.



(Prices exclude VAT)

202513 50W LED Flood-a-lite 12V 9.2Ah

\$ 722 € 635 £ 468.00

202515 50W LED Flood-a-lite 12V 18.4Ah

\$ 796 € 700 £ 516.00

202516 30W LED Flood-a-lite 12V 9.2Ah

\$ 616 € 541 £ 399.00

202517 30W LED Flood-a-lite 12V 18.4Ah

\$ 694 € 610 £ 450.00

GEMINI DATA LOGGERS

► Gemini Data Loggers - Robust environmental data solutions



Tinytag Talk 2 Series

•Economical indoor loggers in film-canister case

The Tinytag remains extremely popular for monitoring indoor temperatures and is widely used by schools, laboratories and ecologists, because of its small size and low cost. 16,000 reading capacity and user replaceable battery. The TK-4014 records temperature using an external probe (included). All loggers require a Tinytag PC cable and software, purchased separately (see Tinytag software & accessories)

(Prices exclude VAT)

Temperature (-40°C to 85°C)

	\$	€	£
193493 TK-4014	\$91	€80	£59.00

Temperature via probe (included) (-40°C to 125°C)

	\$	€	£
193494 TK-4023	\$100	€88	£65.00



Tinytag Ultra 2 Series

•Loggers with large memory for long-term indoor use

Enclosed environmental monitoring of temperature and humidity at an economical price. The Tinytag Ultra 2 loggers are ideal for internal applications. They have a high accuracy and resolution, 32,000 reading capacity, splash-proof case and user-replaceable battery. The TGU-4550 is supplied with a type K thermocouple but is also compatible with types J, T and N and requires a magnetic trigger start using the Gemini Trigger Start Magnet. All loggers require a Tinytag PC cable and software, purchased separately (see Tinytag software & accessories)

(Prices exclude VAT)

Temperature (-40°C to 85°C)

	\$	€	£
193718 TGU-4017	\$106	€94	£69.00

193195 TGU-4017 Starter Kit	\$209	€183	£135.15
Includes TGU-4017, USB cable and Tinytag Explorer software			

Temperature via probe (not included) (-40°C to 125°C)

	\$	€	£
193717 TGU-4020	\$106	€94	£69.00

Temperature (-25°C to 85°C), Humidity (RH: 0-95%)

	\$	€	£
193719 TGU-4500	\$153	€134	£99.00

Dual channel temperature via internal sensor (-40°C to 85°C) and probe (-40°C to 125°C) (not included)

	\$	€	£
193720 TGU-4510	\$153	€134	£99.00

Temperature via type K thermocouple (included) (-270°C to 1370°C)

	\$	€	£
196405 TGU-4550	\$153	€134	£99.00



Tinytag View 2 Series

•Instant indoor temperature and humidity readings with LCD display

The LCD screen display makes the Tinytag View 2 ideal for applications where viewing the current reading is important, as well as logging. The 4-digit display is easy to read and 30,000 readings can be recorded. User-replaceable battery and magnetic trigger start. All loggers require a Tinytag PC cable, software and Gemini Trigger Start Magnet, purchased separately (See Tinytag software & accessories)

(Prices exclude VAT)

Temperature (-30°C to 50°C)

	\$	€	£
193722 TV-4050	\$170	€149	£110.00

Temperature via probe (not included) (-40°C to 125°C)

	\$	€	£
193723 TV-4020	\$170	€149	£110.00

Temperature via stab probe (included) (-30°C to 50°C)

	\$	€	£
193724 TV-4076	\$201	€176	£130.00

Temperature (-25°C to 85°C), Humidity via probe (included) (RH: 0-100%)

	\$	€	£
193721 TV-4505	\$278	€244	£180.00



Tinytag Plus 2 Series

•Loggers with waterproof casing for outdoor use

Small, powerful and easy to use, Tinytag Plus 2 loggers are the ideal choice for most professional logging applications. The rugged IP68 casing is environmentally sealed, submersible to a depth of 15m and resistant to most chemicals. Ideal for external environmental monitoring with 32,000 readings and user-replaceable battery. All loggers require a Tinytag PC cable, software and Gemini Trigger Start Magnet, purchased separately (see Tinytag software & accessories)

(Prices exclude VAT)

Temperature (-40°C to 85°C)

	\$	€	£
193495 TGP-4017	\$147	€129	£95.00

Temperature via probe (not included) (-40°C to 125°C)

	\$	€	£
193496 TGP-4020	\$147	€129	£95.00

Temperature (-25°C to 85°C), Humidity (RH: 0-100%)

	\$	€	£
193497 TGP-4500	\$231	€203	£150.00

193196 TGP-4500 Starter Kit	\$327	€287	£211.91
Includes TGP-4500, USB cable and Tinytag Explorer software			

Dual channel temperature via internal sensor (-40°C to 85°C) and probe (-40°C to 125°C) (not included)

	\$	€	£
193498 TGP-4510	\$231	€203	£150.00

Dual channel temperature via 2 external probes (not included) (-40°C to 125°C)

	\$	€	£
193499 TGP-4520	\$231	€203	£150.00



Tinytag Transit

•Small loggers popular for tough environmental applications

Designed for monitoring temperatures in difficult locations, the Tinytag Transit is popular for many environmental applications as it can be easily hidden and is rated IP54 splash-proof. Data is downloaded either using a Transit Serial or USB cable or wirelessly via the Tinytag Inductive Pad. The Transit has an 8,000 reading capacity and a user replaceable battery. The TG-4080 requires a Transit PC cable or Tinytag Inductive Pad and software, purchased separately or as part of a starter kit.

(Prices exclude VAT)

\$ € £

Temperature (-40°C to 70°C)

193500	TG-4080	\$77	€68	£50.00
193501	Regular Starter Kit	\$131	€115	£85.00
Includes TG-4080, USB cable and Tinytag Explorer software				
193212	Inductive Starter Kit	\$180	€158	£116.67

Includes TGP-4500, inductive USB pad and Tinytag Explorer software



Tinytag Aquatic 2

•Inductive, fully waterproof loggers

Designed for long-term immersion, these units are waterproof to a depth of 500m, making them ideal for environmental monitoring in rivers and oceans. The high visibility yellow case has an attachment button that can be used with cable ties to secure the logger in a location. 32,000 readings, user-replaceable battery, magnetic trigger start. All loggers require a Tinytag Inductive Pad for downloading data, software and Gemini Trigger Start Magnet, purchased separately (see Tinytag software & accessories).

(Prices exclude VAT)

\$ € £

Temperature (-40°C to 70°C)

193163	TG-4100 - Aquatic	\$162	€142	£105.00
Temperature (-30°C to 105°C)				
193164	TG-4105 - Splash	\$224	€197	£145.00



Tinytag Carbon Dioxide Data Logger

•Mains powered CO₂ loggers

These Tinytag Loggers use an infrared sensor to log CO₂ levels. Ideal for experimental situations or to monitor air quality. A self-calibrating NDIR sensor ensures excellent long-term accuracy. Housed in a discreet case and powered by the mains using the power adaptor provided. A red LED informs the user in the case of a power failure. Two models are available, the TGE-0010 standard range (0–2000ppm) or the TGE-0011 wide range (0–5000ppm). A USB cable and Explorer Software are required for use with these loggers, available to purchase separately.

(Prices exclude VAT)

\$ € £

216169	TGE-0010 Standard Range	\$501	€441	£325.00
216265	TGE-0011 Wide Range	\$540	€475	£350.00

Tinytag Accessories



Cables

(Prices exclude VAT)

\$ € £

193176	Serial PC Cable	\$8	€7	£5.00
193169	USB PC Cable	\$31	€27	£20.00
193170	Transit USB PC Cable	\$31	€27	£20.00



Datalogger Probes

(Prices exclude VAT)

\$ € £

193165	1.5m Standard Probe	\$54	€47	£35.00
193166	1.5m Fast Response Probe	\$54	€47	£35.00
193209	5m Standard Probe	\$85	€75	£55.00
193210	5m Fast Response Probe	\$85	€75	£55.00



Miscellaneous

(Prices exclude VAT)

\$ € £

193173	Trigger Start Magnet	\$8	€7	£5.00
193203	Aquatic 2 Service Kit	\$8	€7	£5.00
193200	Service Kit	\$8	€7	£5.00



Stevenson-Type Screen

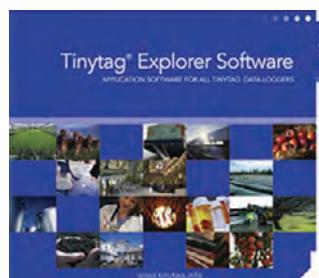
•Protects loggers from sunlight and precipitation

This screen provides protection for Tinytag Talk or Plus data loggers when used in an outdoor location. Its design protects loggers from direct sunlight and precipitation whilst allowing air to circulate freely. Easy to assemble and comes with a mounting bracket and U-bolt. Large enough for two Talk or Plus loggers. Diameter 200mm, Height 140mm.

(Prices exclude VAT)

\$ € £

193172	Stevenson-Type Screen	\$91	€80	£59.00
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Gemini Tinytag Explorer Software

•Required for use of all Gemini Tinytag Dataloggers

Tinytag Explorer software lets you configure, view and analyse your data. Offloaded data can be presented as a summary or in detailed graphical or tabular form. Simple navigation features allow you to zoom into and scroll through your results and a "top and tail" feature lets you mask unwanted data. Combine data from multiple loggers or logging runs and export your data and results to Excel or Word. Includes a getting started guide as well as a comprehensive help file. Compatible with Windows only.

(Prices exclude VAT)

193206	Explorer Software	\$76	€66	£49.00
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► ThermaData Loggers

MkI ThermaData Temperature Logger

- Logs temperatures between -40°C and +85°C

The ThermaData Logger MkI is a cost effective, self-contained temperature data logger housed within a water-resistant polythene case. The user can set high and low alarms within the software and a push button allows for a quick visual inspection as to whether either of these limits have been exceeded. A red LED indicates that limits have been exceeded whilst a green LED indicates that they have not. Ideal for use in laboratories or under cover outside. To use this data logger you will need the ThermaData PC software and USB cable, available to purchase separately.

(Prices exclude VAT)

216456 MkI ThermaData Logger



\$ 42 € 37 £ 26.99



MkII ThermaData Temperature Logger

- Waterproof and dustproof (IP66)

Mk II ThermaData Loggers incorporate an internal NTC thermistor sensor that measures temperature and allows for the collection of up to 4000 readings. Housed in an ergonomic case that is waterproof and dustproof to IP66 protection standards. A green LED indicates that the logger is active and a red LED indicates that pre-set levels have been exceeded. Records over the range of -40°C to +85°C (TB model) or -35°C to +85°C (TD model). Available with (TD) or without (TB) an LCD display. A USB cradle is required to use this logger.

(Prices exclude VAT)

216573 MkII TB - without LCD screen

\$ 77 € 68 £ 49.99

216574 MkII TD - with LCD screen

\$ 93 € 81 £ 59.99



ThermaData Humidity and Temperature Logger

- Records up to 16,000 readings

These ThermaData loggers measure and record temperature, over the range of -20°C to +85°C, and relative humidity, over the range of 0 to 100%. Both are recorded at programmable intervals between 0.1 and 255 minutes, recording up to 16,000 readings (8,000 temperature and 8,000 humidity). A green LED indicates that the logger is active and a red LED indicates that a customised pre-set limit has been exceeded. Available either with (HTB) or without (HTD) an LCD screen. A USB cradle, software and start magnet are required to use these loggers; all available to purchase separately.

(Prices exclude VAT)

216489 ThermaData HTD - without LCD screen

\$ 123 € 108 £ 80.00

216488 ThermaData HTB - with LCD screen

\$ 139 € 122 £ 90.00

ThermaData Logger with External Probe

- Logs temperatures between -40°C and +125°C

The ThermaData Logger with External Probe incorporates an external NTC thermistor sensor that can measure temperatures between -40 and 125 °C and can record up to 4000 readings. The probe is 3.3mm in diameter and 100mm long and is connected to a 1m PVC/PFA lead. The TBC is housed in an ergonomic, waterproof case designed to meet IP66/67 protection. This data logger incorporates a green and red LED, the green LED indicates that the logger is active and the red LED indicates that a pre-set alarm has been exceeded. A USB cradle is required to use this logger.

(Prices exclude VAT)

221187 ThermaData Logger with External Probe

\$ 141 € 124 £ 91.67

► ThermaData Accessories

ThermaData PC Software and USB Cable

- For use with the MkI Data Logger

This USB cable allows the MkI Data Logger to be connected to any standard USB port for transfer of data to your computer. The software included lets you display your data as a graph, table or summary and also allows it to be exported to Microsoft Excel.

(Prices exclude VAT)

216481 PC Software and USB Cable

\$ 53 € 46 £ 34.16



ThermaData Logger USB Cradle, Software and Start Magnet

- For use with MKII and Temperature and Humidity Loggers

This Logger Cradle lets you easily connect your MkII or Temperature and Humidity Logger to your PC in order to download your logged data. Once downloaded it can be displayed as a graph, table or summary and can also be easily exported to Microsoft Excel using the software provided.

(Prices exclude VAT)

216575 USB Cradle, Software and Start Magnet

\$ 64 € 56 £ 41.66



► EasyLog - Innovative and economical data loggers



EasyLog USB Temperature Logger

• Measures and logs over 16,000 temperature readings

These EasyLog USB Loggers are ultra-compact and can log data continually for at least one year thanks to the long-life replaceable lithium battery. They will store up to 16,378 readings and are protected from water and dust to IP67 standard when the cap is fitted correctly. The user can program several parameters including logging rate, measurement units, high and low alarm settings and start time. Configuration and download software is supplied free and is compatible with Windows 2000, XP, Vista and 7 (32 and 64-bit). The units plug directly into a USB port and are supplied with micro USB cable. Also compatible with the EasyLog DataPad. Available with or without an LCD screen which displays current, maximum and minimum temperature.

(Prices exclude VAT)

	\$	€	£
198790 EL-USB-1	\$54	€47	£34.95
219459 EL-USB-1 with LCD screen	\$76	€67	£49.16



EasyLog Heavy Duty USB Temperature Logger

• Housed in a robust stainless steel case (IP68)

This Professional Data Logger measures temperature over a range of -40°C to +125°C. It will store up to 32,510 readings and the included battery will power the unit for up to three years. The logger is housed in a stainless steel case which protects the logger from corrosion, impact and moisture to IP68 standard. Data is downloaded by plugging the device directly into a USB port. The included software allows data to be viewed, printed and exported and is compatible with Windows 2000, XP, Vista and 7. It also allows the logging rate, unit of measurement and start time to be configured.

(Prices exclude VAT)

	\$	€	£
219464 EL-USB-1-PRO	\$154	€136	£99.96

EasyLog Mini USB Temperature Logger

• Economical USB logger

The EasyLog Mini Temperature Logger measures temperature over a range of -10°C to +50°C. It has a fixed 30 minute logging rate and will store up to 4,080 readings. Data is downloaded by connecting the logger to a USB port and using the software included. The software will also let you configure the logger name, measurement unit, alarm thresholds and start time. Supplied with a CR1620 lithium coin cell battery which will power the unit for approximately one month's continuous use.

(Prices exclude VAT)

	\$	€	£
219467 EL-USB-LITE	\$31	€27	£19.96



EasyLog WiFi Temperature and Humidity Logger

• Long-term wireless temperature and humidity logger

This temperature and humidity data logging sensor has WiFi capability for wireless transmission of logged data directly to your PC. The logger can be placed anywhere within the range of your wireless network and will continue to log readings even if connectivity is temporarily lost (maximum 60 days at 10 second sample interval). The sensor is capable of logging more than 500,000 entries and will operate for over one year, at which point it can be recharged via a PC or USB +5V wall adapter using the USB cable provided. Purpose designed software, which is free to download, allows set-up, data logging and data review. Logged data can also be graphed and exported to other applications. Software is compatible with Windows 2000, XP, Vista and 7 (32 and 64 bit). Temperature (-20°C to 60°C), Humidity (RH: 0–100%)

(Prices exclude VAT)

	\$	€	£
198794 WiFi Logger	\$153	€134	£99.16



EasyLog USB Temperature and Humidity Logger

• Available with or without an LCD screen

This EasyLog Data Logger measures temperature from -35°C to +80°C and humidity from 0 to 100%RH. It will store up to 16,379 temperature readings and an equal number of humidity readings. The logger plugs directly into a USB port for quick download of data. It is waterproof and dustproof to IP67 standards when the protective cap is fitted correctly. The software included lets you configure the logging rate, high and low alarm settings as well as start time. It also lets you view and export your data. Software is compatible with Windows 2000, XP, Vista and 7 (32 and 64-bit). Available with or without an LCD screen which displays current, maximum and minimum temperature and humidity.

(Prices exclude VAT)

	\$	€	£
198792 EL-USB-2	\$77	€68	£49.99
219461 EL-USB-2-LCD with LCD screen	\$95	€83	£61.25



EasyLog Thermocouple USB Temperature Logger

• Logs temperature using a K, J or T-type thermocouple

This Thermocouple Data Logger uses a K, J or T-type thermocouple to measure and log temperature readings. It will store over 32,000 readings and is supplied with a long-life lithium battery which will last for approximately six months. Data is downloaded by plugging the logger directly into the USB port of a PC or laptop. The included software allows data to be viewed, printed and exported and will also allow you to configure the thermocouple type, logging rate, start time, logging mode and alarm thresholds. The logger is supplied with a basic K-type thermocouple which will measure temperatures over the range of 0 to 400°C. It can also be used with any K, J or T-type thermocouple which has a standard mini thermocouple connector.

(Prices exclude VAT)

	\$	€	£
219466 EL-USB-TC	\$79	€69	£51.25



EasyLog DataPad

• Download and store data from 500 loggers in situ

This handheld programmer and data collector will collect and store data from at least 500 EasyLog dataloggers, up to 8.5 million readings. The DataPad can also be used to configure units and view results on-the-spot without having to remove loggers from their location. Loggers are connected to the DataPad via a standard USB port and the simple touch screen menu is simple and quick to use. An integrated lithium battery provides up to eight hours use (rechargeable via micro-USB connection). Data from the DataPad can be transferred to a PC or Mac using the USB cable supplied and then managed using the purpose designed software. Software is free to download and is compatible with Windows 2000, XP, Vista and 7 (32 and 64 bit).

(Prices exclude VAT)

	\$	€	£
198793 DataPad	\$185	€163	£119.99

THERMOHYGROMETERS

TH-2500 Tinytag Handheld Thermo hygrometer**•Includes datalogging function**

A hand-held unit to take spot readings of temperature and relative humidity. Readings are shown on a clear LCD screen. Temperature can be displayed in Celsius or Fahrenheit in 0.1° increments. This unit can also function as a datalogger when used in conjunction with the Tinytag Explorer Software and a PC Download Cable.

	\$	€	£
193202 Tinytag TH-2500	\$324	€285	£210.00
193206 Tinytag Explorer Software	\$76	€66	£49.00
193169 PC Download Cable	\$31	€27	£20.00

**ETI 6000 Therma-Hygrometer****•Highly accurate temperature and humidity measurements**

The ETI 6000 measures % RH over the range of 0 to 100% with a resolution of 0.1% and temperature over the range of -20 to +50°C with a resolution of 0.1°C. Incorporates a clear custom LCD which shows temperature, % RH, max/min and dew point. There is also an automatic display of both open circuit and low battery. Powered by three AAA batteries and possesses an auto-off feature. Also available with a Thermistor Probe on a 1m cable (ETI 6100) to extend the measured temperature range.

	\$	€	£
193158 ETI 6000	\$116	€102	£74.99
193159 ETI 6100	\$161	€141	£104.17



THERMOMETERS

**Breaksafe Thermometer**

This 'Breaksafe' laboratory thermometer is encapsulated in PVC which will contain any glass or filling material in the event of a breakage. Range: -10 to +110°C, Length: 200mm.

	\$	€	£
193178 Breaksafe Thermometer	\$6	€5	£3.96

Digital Max/Min Thermometer

A digital maximum/minimum thermometer in a sturdy ABS case ideal for hanging on a wall. Measures temperature in 0.1°C increments over a range of -20 to 69.9°C. Dimensions: 29 x 79 x 782mm.

	\$	€	£
208003 Max/Min Thermometer	\$14	€12	£9.00

**ETI Hygro-Thermo Pocket Sized Hygrometer****BESTSELLER****•Lightweight hygrometer for instant readings**

Pen-shaped portable temperature and humidity meter with maximum/minimum readings and fantastic battery life. Clear LCD displays temperature and humidity simultaneously. Range: -20 to +50°C, in 1% increments from 20 to 95% RH.

	\$	€	£
193156 ETI Hygro-Thermo Pocket Sized Hygrometer	\$27	€24	£17.49

**ETI 6500 Therma Hygrometer****•Great value therma hygrometer**

The ETI6500 Therma-Hygrometer measures both relative humidity and air temperature and displays results on a custom LCD screen. The unit is controlled using four user-friendly push buttons and features an auto-power off function after 10 minutes non-use to save on battery power. This great value unit is supplied with a remote sensor and integral PVC lead. Range: -20 to +70°C, (resolution 0.1°C), 0–100% RH (resolution 0.1%RH)

	\$	€	£
199539 ETI 6500	\$93	€81	£60.00

**Vertical Barrel Digital Test Thermometer**

A stainless steel probe thermometer for use in many situations including the field, laboratory, home or classroom. Battery included. Range: -50 to +150°C.

	\$	€	£
183509 Vertical Barrel Digital Test Thermometer	\$9	€8	£6.04

Rugged Thermometer (Thermistor)

Sealed against dust and water, this thermometer is designed for use in the field. It has a long battery life and measures -50 to +150°C with 0.1°C resolution and high accuracy. Farenheit values are available and min/max readings are displayed.

	\$	€	£
180263 Rugged Thermometer (Thermistor)	\$269	€236	£174.17



WEATHER METERS

SILVA ADC (Atmospheric Data Centre) Range

A range of handheld wind and weather gauges with digital display and a host of meteorological monitoring features.



Silva ADC Wind

•Compact Anemometer and Thermometer

A handheld wind gauge and thermometer which warns of extreme wind chill, saves information about maximum and average wind speeds and also works as an alarm clock and stopwatch. Temperatures are measured in °C and °F: range -20°C to +90°C with 0.1°C resolution. Wind speed range 0.3 to 40m/s with 0.1m/s resolution.

(Prices exclude VAT) \$ € £
176799 Silva ADC Wind \$96 €85 £62.50



Silva ADC Summit

•Anemometer, Thermometer, Altimeter & Barometer

This handy pocket-sized wind gauge and altimeter also includes a thermometer and barometer. Saves 24 hours history and also functions as a clock, alarm clock and stopwatch.

(Prices exclude VAT) \$ € £
176801 Silva ADC Summit \$179 €157 £115.83



Skywatch Atmos

BESTSELLER

•Combined Waterproof Thermo-Hygrometer and Anemometer

Portable handheld unit measuring wind speed, temperature, wind chill, relative humidity and dew point. Multi-directional wind measuring cups mean there is no need to point the unit directly into the wind. The Atmos shows current, maximum and average temperature and wind speed, in a variety of scales. Temperature units °C and °F, range -20°C to +70°C with 0.1°C resolution. Windspeed range 0.6 to 42m/s with 0.1m/s resolution.

(Prices exclude VAT) \$ € £
193177 Skywatch Atmos \$125 €110 £80.83

LIGHT METERS

4-in-1 Environmental Meter

•Versatile instrument for use indoors or outside

This Environmental Meter combines a sound level meter, light meter, humidity meter and thermometer for a variety of practical applications. Temperature / humidity is measured with a semi conductor sensor and k type thermocouple and light is measured with a long life silicon diode.



(Prices exclude VAT)

183501 4-in-1 Meter \$186 €164 £120.83

Digital Light Meter

•Robust light meter with min / max display

This is a precision instrument used to measure illuminance (lux, foot candles) in the field. It meets CIE photopic spectral response and is fully corrected for the angular incidence of light. It is compact, tough and easy to handle, and the light sensitive component used in the meter is a very stable long-life photo diode and spectral response filter.

(Prices exclude VAT)

183504 Digital Light Meter



\$ € £

\$135 €119 £87.50

Portable Lux Meter

•Ideal for high humidity environments

This Lux Meter is designed to provide quick and accurate measurement of light levels and displays the result (in Lux) on its digital display. The sensor is connected to the meter on a 1.5m cable allowing the sensor to be positioned more easily whilst retaining the meter in the hand for easy reading. The meter will read in three measurement ranges and is supplied in a rugged water resistant case.

(Prices exclude VAT)

180265 Portable Lux Meter \$206 €181 £133.32



RAIN GAUGES

Wireless Rain Gauge and Thermometer

Be prepared for any weather with this handy unit which measures rainfall, indoor temperature and outdoor temperature. Displays rainfall history along with the time and date. This unit is completely wireless and rainfall readings are transmitted to the indoor base unit from the remote sensor by wireless data transfer.



(Prices exclude VAT)

195496 Wireless Rain Gauge and Thermometer \$60 €53 £39.16

Traditional Rain Gauge

This simple, robust rain gauge is made in strong plastic to a traditional design. When assembled it measures 30cm high and is graduated in millimetres and inches. The inverted cone base gives accurate measurement of smaller quantities.



(Prices exclude VAT)

193204 Traditional Rain Gauge \$19 €16 £12.08



► PARAMO

Ethical and environmentally friendly high performance outdoor clothing



Torres Trousers

Paramo Cambia Zip Neck Top

•Exceptionally lightweight and rapid drying

The Paramo Cambia Zip Neck Top is a high performance long sleeved, zip necked base layer for year round outdoor activities. Unique among technical T-shirts & base layers, reversibility means two fabric faces allow you to fine-tune your comfort level simply by choosing which way-round you wear it. Mens' and ladies' cuts give optimum comfort and performance.



Womens

(Prices exclude VAT)

	\$	€	£
188570 Ladies: X Small	\$46	€41	£30.00
188572 Ladies: Small	\$46	€41	£30.00
188573 Ladies: Medium	\$46	€41	£30.00
188574 Ladies: Large	\$46	€41	£30.00
188575 Ladies: X Large	\$46	€41	£30.00
188556 Mens: Small	\$46	€41	£30.00
188558 Mens: Medium	\$46	€41	£30.00
188559 Mens: Large	\$46	€41	£30.00
188560 Mens: X Large	\$46	€41	£30.00
188561 Mens: XX Large	\$46	€41	£30.00



Mens

Paramo Unisex Torres Jacket

•Insulated hand warming pockets and fully-adjustable fixed hood

The Paramo Torres Jacket provides fast block insulation and water repellency in extreme or prolonged cold and wet, packing down small when not needed. The moisture-repellent synthetic 133g fill delivers a high warmth-for-weight ratio and the down-like feel and performance warms you even when wet. Styled for freedom of movement and generously sized to be worn over a Paramo jacket, to warm you quickly without removing layers.



(Prices exclude VAT)

	\$	€	£
189394 X Small	\$174	€153	£112.50
189395 Small	\$174	€153	£112.50
189396 Medium	\$174	€153	£112.50
189397 Large	\$174	€153	£112.50
189398 X Large	\$174	€153	£112.50
189399 XX Large	\$174	€153	£112.50

Paramo Grid Classic Baselayer

•Provides insulation and dries quickly

The Grid Classic is a hugely versatile baselayer. With long sleeves and a round neckline it fits comfortably under all jackets and smocks. Made from Parameta G fabric which helps spread perspiration over a large area and dries rapidly to provide comfort to the wearer. By combining with outer layers this fabric provides excellent insulation. Available in a ladies' or men's fit and in a moss green colour.



Womens



Mens

(Prices exclude VAT)

	\$	€	£
221963 Ladies: X Small	\$46	€41	£30.00
221964 Ladies: Small	\$46	€41	£30.00
221965 Ladies: Medium	\$46	€41	£30.00
221966 Ladies: Large	\$46	€41	£30.00
221967 Ladies: X Large	\$46	€41	£30.00
221971 Mens: Small	\$46	€41	£30.00
221973 Mens: Medium	\$46	€41	£30.00
221974 Mens: Large	\$46	€41	£30.00
221975 Mens: X Large	\$46	€41	£30.00
221976 Mens: XX Large	\$46	€41	£30.00



Paramo Torres Trousers

•Zip easily on and off without removing your shoes

The Torres Trousers are designed to maintain good insulation and water repellency in extreme or prolonged cold and/or wet. They can be used as an over-layer or worn comfortably on their own.

The innovative Torres Trousers are very easily and safely zipped on and off in any situation and so represent a practical survival aid.

	\$	€	£
188537 X Small	\$150	€132	£97.50
188538 Small	\$150	€132	£97.50
188539 Medium	\$150	€132	£97.50
188540 Large	\$150	€132	£97.50
188541 X Large	\$150	€132	£97.50



Halcon Jacket



Pajaro Trousers

Paramo Unisex Taiga Fleece

- Two-way zip for easy ventilation and access

The Taiga fleece is a highly water-repellent directional fleece jacket, designed to be worn either as a stand-alone garment or in combination with an exterior jacket for total directional waterproof protection. The two large chest pockets will hold a map, guide, travel papers or camera lens. The two hand warming pockets can also be used to hold items securely.

(Prices exclude VAT)

	\$	€	£
188581 X Small	\$168	€147	£108.75
188408 Small	\$168	€147	£108.75
188409 Medium	\$168	€147	£108.75
188410 Large	\$168	€147	£108.75
188411 X Large	\$168	€147	£108.75



Paramo Ladies' Cascada Waterproof Trousers

- Waterproof with double layer seat

Fulfilling the needs of the female outdoor enthusiast, the Ladies' Cascada Trousers feature a specific female cut and elasticated waistband. The trousers' unique leg ventilation using two-way side zips make temperature control simple and quick in all conditions. The curved knee articulation gives excellent freedom of movement - making Cascada Trousers the most comfortable and useful year round trousers for outdoor wear.

(Prices exclude VAT)

	\$	€	£
188576 X Small, Regular Leg	\$144	€127	£93.33
188583 Small, Short Leg	\$144	€127	£93.33
188584 Small, Regular Leg	\$144	€127	£93.33
188585 Medium, Short Leg	\$144	€127	£93.33
188586 Medium, Regular Leg	\$144	€127	£93.33
188587 Large, Short Leg	\$144	€127	£93.33
188588 Large, Regular Leg	\$144	€127	£93.33
188589 X Large, Short Leg	\$144	€127	£93.33
188590 X Large, Regular Leg	\$144	€127	£93.33



Paramo Halcon Waterproof Jacket

- Unique Nikwax Directional Fabrics

Great for all outdoor enthusiasts, especially those who want lots of practical carrying space, the Paramo Halcon has nine easily accessible pockets. The fleece-lined collar and hand-warming pockets provide additional comfort. The unique fabric and ventilation options ensure you can maintain your comfort without taking layers on and off. Mens' and Ladies' specific cuts are available for optimum comfort and performance.

(Prices exclude VAT)

	\$	€	£
188564 Ladies: X Small	\$382	€336	£247.50
188565 Ladies: Small	\$382	€336	£247.50
188566 Ladies: Medium	\$382	€336	£247.50
188567 Ladies: Large	\$382	€336	£247.50
188568 Ladies: X Large	\$382	€336	£247.50
188417 Mens: Small	\$382	€336	£247.50
188419 Mens: Medium	\$382	€336	£247.50
188420 Mens: Large	\$382	€336	£247.50
188421 Mens: X Large	\$382	€336	£247.50
188422 Mens: XX Large	\$382	€336	£247.50



Mens



Womens

Paramo Men's Pajaro Trousers

- Waterproof and comfortable with secure zipped pockets

The Men's Pajaro trousers are ideal for outdoor life. The Nikwax fabric guarantees weather proofing and comfort, by removing perspiration more effectively.

The soft, supple, fabric ensures easy, rustle-free movement and makes them comfy enough to wear all day - so no hassle pulling overtrousers on and off. The trousers feature generous, accessible pockets for storage.

(Prices exclude VAT)

	\$	€	£
188412 Small	\$167	€147	£108.33
188413 Medium	\$167	€147	£108.33
188414 Large	\$167	€147	£108.33
188415 X Large	\$167	€147	£108.33
188416 XX Large	\$167	€147	£108.33



FIRST AID KITS & PPE

► **Lifesystems** - First aid and medical kits specified by experienced doctors and medical consultants**Pocket First Aid Kit**

With 17 items, the Pocket pack is a small first aid dressing kit that is ideal for basic trekking, weekend rambling and family walks. Containing items such as antiseptic cream, fabric dressing and a woven bandage, it is well equipped for most minor injuries.

(Prices exclude VAT)

180914 Pocket Kit

**BESTSELLER**

\$ 11 € 10 £ 7.44

Trek Outdoor First Aid Kit

Recommended by the Duke of Edinburgh Award, the Trek first aid kit is ideal for daily outdoor activities and is great for dealing with small accidents. The kit provides essential first aid items for treating cuts, grazes, blisters and other minor injuries. Each kit contains 28 items.

(Prices exclude VAT)

188601 Trek Outdoor



\$ 14 € 12 £ 9.16

Solo Traveller First Aid Kit

The Solo Traveller First Aid Kit combines all the basics for treating minor, and some more serious, injuries with a full set of sterile medical equipment, including needles and syringes. Contains 49 items.

(Prices exclude VAT)

180919 Solo Traveller Kit



\$ 39 € 35 £ 25.49

Mountain Leader Pro Outdoor First Aid Kit

The Mountain Leader Pro is a comprehensive first aid kit that provides the equipment needed to care for a large group of between one and 16 persons. The Mountain Leader Pro First Aid Kit is also used by survival training schools in the UK. Contains 87 items.

(Prices exclude VAT)

188606 Mountain Leader Pro Kit



\$ 85 € 75 £ 54.99

Adventurer Outdoor First Aid Kit

Whether you're trekking, doing field work or simply spending time travelling, the Adventurer Kit is a well-equipped first aid kit that will give you the basics to deal with most common injuries. The 29 items are organised to keep the pack compact, ensuring it takes up as little space as possible.

(Prices exclude VAT)

180916 Adventurer Kit



\$ 21 € 18 £ 13.33

Mountain Leader Outdoor First Aid Kit

The Mountain Leader First Aid Kit provides the equipment needed to care for a large group of between one and 14 persons. The Mountain Leader First Aid Kit is also used by survival training schools in the UK. Contains 64 items.

(Prices exclude VAT)

188605 Mountain Leader Kit



\$ 53 € 46 £ 34.16

Light & Dry Micro First Aid Kit

The Micro Kit is small and light enough to carry with you at all times, yet it packs sufficient items to treat most common outdoor injuries. It is an ideal companion for biking, hiking, trail running, skiing, climbing and kayaking.

(Prices exclude VAT)

188611 Micro Light & Dry Kit



\$ 13 € 11 £ 8.33

Camping Outdoor First Aid Kit

The Camping Outdoor First Aid Kit is recommended by the Duke of Edinburgh Award and ideal for dealing with small accidents whilst camping. The kit contains 40 items for treating burns, cuts, grazes and blisters.

(Prices exclude VAT)

188603 Camping Outdoor Kit



\$ 23 € 20 £ 14.99

Sterile Travel First Aid Kit

In case of emergency, the Sterile Kit is designed to be handed to a qualified medical person ensuring that they have immediate access to basic sterile equipment. The contents of this set have been specified by surgeons and doctors with experience of emergencies in remote areas.

(Prices exclude VAT)

180918 Sterile Travel Kit



\$ 22 € 19 £ 14.16

► **Steroplast** - Equipped with all the essential items to help you deal with common accidents and minor injuries**Standard HSE First Aid Kit**

The Standard HSE First Aid Kit is comprehensively stocked and compliant with British Health and Safety regulations. The durable, polypropylene box has an integrated carry handle and the contents are clearly displayed inside the lid. The kit is suitable for a group of between one and ten people.



(Prices exclude VAT)

194052 Standard HSE Kit

\$ 12 € 10 £ 7.49

40 Piece First Aid Kit

This 40 Piece First Aid Kit is a comprehensive and compact first aid kit in a soft nylon roll-up bag. All items are arranged in clear easy to see compartments. The kit contains 40 items including an instant ice pack.

(Prices exclude VAT)

194051 40 Piece Kit



\$ 9 € 8 £ 5.83

One-Person Off-site Travel Kit

This handy first aid pouch kit is ideal for ensuring off-site employees have adequate first aid equipment. Each kit contains the recommended contents for one employee in a lightweight carry pouch.

(Prices exclude VAT)

194053 1-Person Off-site Kit



\$ 5 € 4 £ 2.92

Light Sticks

These light sticks are primarily designed as emergency signalling devices. Each light stick lasts for up to 12 hours and they come in both green and orange. A lanyard is included with each light stick.

(Prices exclude VAT)

217873 Light Sticks \$5 €4 £3.13

**Mountain Whistle**

The Mountain Whistle is a tough, lightweight aluminium alloy, key-fob whistle. It is a recommended item for people in the outdoors.

(Prices exclude VAT)

188617 Mountain Whistle \$4 €3 £2.33

**Petzl e+Lite Ultra-Compact Emergency Lamp**

The Petzl e+lite headlamp is the perfect addition to any first aid or emergency kit. This torch is waterproof and can be used in freezing or potentially explosive atmospheres, making it ideal for expeditions, trekking and within the workplace. The lamp also has a range of lighting options including white, red, continuous and strobe ensuring you can be seen in emergency situations. The batteries have a shelf life of up to 10 years.

(Prices exclude VAT)

209559 Petzl e+Lite \$28 €25 £18.33

**Lifesystems Safety Whistle**

This loud whistle is made from a toughened plastic material and is an essential part of any outdoor or mountain survival kit. Bright orange and complete with a neck lanyard. The whistle produces a sound of up to 108dB loudness.

(Prices exclude VAT)

188618 Safety Whistle \$4 €3 £2.30

**Emergency Strobe**

The Emergency Strobe is a lightweight LED lamp that emits bursts of light, visible at a distance of up to a mile. This makes it ideal for getting the attention of emergency services when injured or lost at night or in poor weather conditions.

On/off is via an easy twist mechanism and the base of the lamp has a hole for handing. The lamp will produce 120 flashes per minute and is waterproof to 300 metres. Powered by 2 x 1/2 AA batteries (included) and battery life is up to 100 hours. Weight: 60g with batteries.

(Prices exclude VAT)

217869 Emergency Strobe \$42 €37 £27.49

STERIPEN

SteriPENs are UV water purifiers that use germicidal ultraviolet light to destroy 99.9% of bacteria, viruses and protozoa, including giardia and cryptosporidium. It takes just 48 seconds to purify 500ml of water or 90 seconds for 1 litre. This allows the user to safely drink water from natural sources, such as rivers or streams, or tap water in countries where there are known water purity problems. The SteriPEN has an auto-timer which turns the unit on and off which ensures proper UV exposure while also maximising battery performance. LED indicators show the on/off status, treatment success and battery life and the patented water sensor prevents illumination of the lamp when not immersed. This prevents harm to the user.

SteriPEN Traveller Water Purifier

SteriPEN Traveller is designed to keep you safe from water-borne diseases, no matter where you are in the world. It is designed to fit commercial water bottles, but can also be used with a glass or other container. The SteriPEN Traveller is powered by four AA batteries (not included). One set of batteries can provide up to 200 treatments and lamp has a life of around 3,000 treatments.

(Prices exclude VAT)

219049 SteriPEN Traveller Water Purifier \$49 €43 £31.63

**SteriPEN Ultra Water Purifier**

The SteriPEN Ultra features a user-friendly OLED (Organic Light Emitting Diodes) display and can be recharged by computer, mains socket or solar panel. When fully charged the Ultra can treat up to 50 litres of water and the UV lamp will last for up to 8,000 treatments.

(Prices exclude VAT)

219050 SteriPEN Ultra \$99 €87 £64.17

**SteriPEN FitsAll Filter**

The SteriPEN FitsAll Filter has a 40 x 40µm mesh screen which filters out particulates from your drinking water. It is designed for use prior to sterilising water with a SteriPEN UV purifier. The FitsAll Filter is uniquely designed so that it can be used with bottles having a range of mouth sizes; this includes commercial water bottles, wide mouth canteens and SIGG bottles. On wider mouth bottles only the top part of the funnel is used, whilst both parts need to be connected together for bottles with narrower mouths.

(Prices exclude VAT)

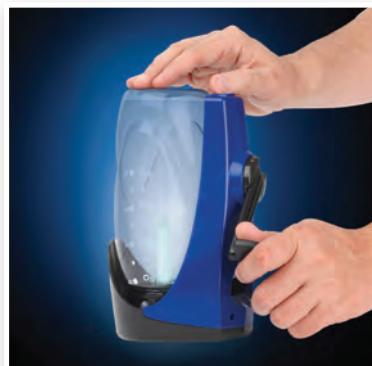
219087 SteriPEN FitsAll Filter \$15 €14 £10.00

**SteriPEN SideWinder Water Purifier**

The SteriPEN SideWinder requires no batteries for use and is powered by an eco-friendly hand crank system. Purification of water requires the handle to be rotated for 90 seconds (approximately 300 revolutions). Red and green LEDs indicate when the handle is being rotated too slowly and when the water is safe to drink. This long-life storable water purifier will provide 8,000 treatments and is supplied with a one litre BPA-free bottle and SteriPEN pre-filter.

(Prices exclude VAT)

221456 SteriPEN SideWinder \$123 €108 £79.99



TRAVEL ESSENTIALS



LIFESYSTEMS MOSQUITO NETS AND REPELLENTS

UltraNet Travel Mosquito Net

Weighing just 220g, the UltraNet is ideal for the traveller who is looking to save space and weight in their pack. Using a single adjustable hanging point it will cover a single bed, camp bed or sleeping bag. The net is impregnated with long-lasting Lifesystems EX8 anti-mosquito treatment.

(Prices exclude VAT)

189325 UltraNet Travel Mosquito Net

\$ 26 € 23 £ 16.66

**MicroNet Travel Mosquito Net**

Using a single hanging point (with strengthening bar), and with a wedge shaped design, the MicroNet Mosquito net has a 15cm toughened skirt along the bottom to fold under the mattress. It is impregnated with long-lasting Lifesystems EX8 anti-mosquito treatment.

(Prices exclude VAT)

180924 Single

\$ 28 € 25 £ 18.33

180925 Double

\$ 32 € 28 £ 20.83

**Geonet Freestanding Travel Mosquito Net**

The twin-pole aluminium frame is simple to put together and provides a stable structure. Ultrafine mesh blocks out midges, mosquitoes and sandflies, and the water resistant nylon base prevents outside moisture entering. Impregnated with Lifesystems EX8 anti-mosquito treatment, includes 4 pegs for anchoring.



(Prices exclude VAT)

189328 Geonet Single Net

\$ 53 € 46 £ 34.16

Plug-In Mosquito Killer Unit

This two-pin (round) unit plugs into the mains and, with a tablet inserted in the slot, slowly emits an insecticide which is harmless to humans and extremely effective against biting insects. A Duo model is also available which takes tablets or liquid.



(Prices exclude VAT)

189274 Mosquito Killer Unit + 15 Tablets

\$ 8 € 7 £ 4.99

189276 Duo Mosquito Killer Unit + 35ml Liquid

\$ 8 € 7 £ 5.42

189275 Refill Tablets x20

\$ 4 € 3 £ 2.49

189277 35ml Refill Liquid

\$ 6 € 5 £ 3.75

Bed Bug Undersheet

Using an ultra-fine mesh and a special Anti-Bed Bug impregnation formula, the Bed Bug Undersheet is a great piece of kit for any traveller who may find themselves in cheaper hostel accommodation. Available as either a single or double undersheet.



(Prices exclude VAT)

189330 Single

\$ 11 € 10 £ 7.08

189331 Double

\$ 14 € 12 £ 9.16

**Expedition Insect Repellent Spray**

A dual-action formula which combines natural pyrethroids with a high concentration (20, 50+ or 100+) of DEET to provide maximum, long lasting protection. 50ml.

(Prices exclude VAT)

182347 20 DEET



182348 50+ DEET

\$ 5 € 5 £ 3.33

182349 100+ DEET

\$ 5 € 4 £ 3.16

182349 100+ DEET

\$ 7 € 6 £ 4.58

Natural 40+ Insect Repellent

Formulated from a blend of natural plant oils derived from Lemon Eucalyptus, this pump spray will provide protection for up to 8 hours. Repels mosquitoes, midges, horseflies, sandflies, gnats and ticks and includes natural pyrethrum to act as a bite inhibitor. 100ml.

(Prices exclude VAT)

189261 Natural Insect Repellent



\$ 8 € 7 £ 4.99

Tick Remover

Ergonomically designed stainless steel tweezers to efficiently remove ticks without leaving the mouth parts buried under the skin.

(Prices exclude VAT)

189267 Tick Remover



\$ 4 € 3 £ 2.33

Bite Relief Click

Instantly soothes the discomfort and itching of bites. It uses a piezo-electric pulse to localise the poison and inhibit the histamine release, reducing inflammation and swelling.

(Prices exclude VAT)

180921 Bite Relief Click



\$ 7 € 6 £ 4.33

Insect Fumers

Once activated the Fumer will release an insecticidal smoke that will fill the room it is released in, killing any crawling or flying insect it comes in to contact with.

(Prices exclude VAT)

189269 Insect Fumers



\$ 10 € 9 £ 6.66

Mosquito Coils

Each coil will last up to eight hours, and should only be used outside. Each pack comes with ten coils and a stand.

(Prices exclude VAT)

180923 Mosquito Coils



\$ 4 € 3 £ 2.49

Head Insect Net

This insect net will fit most hats with a brim. The elasticated top is designed to fit around the head band whilst the bottom has a draw string neck to ensure complete exclusion of unwanted visitors.

(Prices exclude VAT)

183497 Head Insect Net



\$ 18 € 16 £ 11.66

Hat not included

Mosquito Head Net

Protects the head, face and neck from flying insects. Manufactured from tough, multi filament Tricot material, with a draw cord around the rim. Weighs just 40 grams.

(Prices exclude VAT)

180927 Mosquito Head Net



\$ 8 € 7 £ 4.95

Safari Bush Hat

A lightweight hat with excellent sun protection (sun protection factor of 40+). We have found that people prefer a hat 3 to 4 cm larger than their head size for a more comfortable fit.

(Prices exclude VAT)

183488 Small (55cm)



\$ 14 € 12 £ 9.16

183492 Medium (58cm)

\$ 14 € 12 £ 9.16

183494 Large (60cm)

\$ 14 € 12 £ 9.16

183495 X Large (62cm)

\$ 14 € 12 £ 9.16



Universal Travel Adapter Plug

A travel adapter for converting UK/US/AU/EU plugs to UK/US/AU/EU sockets. USB socket for charging mobile phones etc.

(Prices exclude VAT)

180922 Universal Travel Plug \$17 €15 £10.83



Soft Fibre Trek Towel

A Trek Towel will absorb nine times its own weight in water and dry very quickly. Each towel is treated with a permanent antibacterial formula that prevents the build-up of bacteria.

(Prices exclude VAT)

189355 Soft Fibre Trek Towel \$26 €23 £16.66



Ear Plugs

Whether you're travelling or at home, these earplugs will keep out unwanted noise. Made from polyurethane foam they fit the shape of your ear for maximum noise reduction. Three pairs provided in a plastic case.

(Prices exclude VAT)

189373 Ear Plugs \$4 €4 £2.71



LEATHERMAN MULTI TOOLS

Leatherman Micra

• Includes 10 tools

• 25 year warranty

The Leatherman Micra is packed with a useful mix of personal care and DIY essential tools and is small enough to fit onto your key ring or into a pocket. Like all Leatherman Multi Tools, when not in use it folds up into a compact and safe package. The Micra is made from tough stainless steel. Includes knife, scissors, screwdrivers, bottle opener, ruler, nail file and tweezers.

Not for sale to persons under the age of 18.



(Prices exclude VAT)

219046 Leatherman Micra \$32 €28 £20.79

Karabiners

Pack of three anodised aluminium alloy karabiners with spring gate connectors, ideal for attaching items to your pack. Not suitable for climbing. Colours may vary.

(Prices exclude VAT)

217885 Karabiners \$7 €6 £4.38



Flight Bottle Set

The Flight Bottle Set allows you to separate your liquids before you get to the airport. It includes 2 x 70ml screw top bottles, 2 x 70ml pump spray bottles and 2 x 10ml screw top pot, all contained in a clear zip bag.

(Prices exclude VAT)

189363 Flight Bottle Set \$6 €6 £4.16



Collapsible Bucket

Ideal for camping, travelling or fieldwork, this bucket folds down into a compact stuff sack and weighs only 80g. It holds 15 litres of water and has twin grab handles so it is easy to carry. Made from Cordura ripstop fabric with taped seams.

(Prices exclude VAT)

220812 Collapsible Bucket \$23 €20 £14.99



Leatherman Sidekick

• Includes 14 tools

• 25 year warranty

The Leatherman Sidekick is pocket-sized, has a great selection of tools and is great for DIY around the home or fieldwork. The outside-accessible blades are easy to open with one hand and it has rounded comfortable handles.

The Sidekick is made from tough stainless steel. Includes needlenose pliers, wire cutters, wire stripper, knife, serrated knife, saw, can opener and screwdrivers.

Not for sale to persons under the age of 18.



(Prices exclude VAT)

219047 Leatherman Sidekick \$66 €58 £42.46

Sleeping Bag Liners

These sleeping bag liners add warmth and keep your sleeping bag clean, or they can be used on their own as a travel sheet for hygiene and comfort. Made from either 100% cotton or 100% silk, they are available to fit rectangular or mummy shaped sleeping bags. The EX3 treatment prevents bacterial build-up as well as repelling bed bugs and mosquitoes.

(Prices exclude VAT)

	\$	€	£
189365 Rectangular Cotton	\$16	€14	£10.42
189366 Mummy Cotton	\$16	€14	£10.42
189367 EX3 Rectangular Cotton	\$23	€20	£14.99
189368 EX3 Mummy Cotton	\$23	€20	£14.99
189369 EX3 Rectangular Silk	\$57	€50	£36.66
189371 EX3 Mummy Silk	\$57	€50	£36.66



Universal Sink Plug

This extra large universal plug will work with almost all sink and bath plugs worldwide. It uses pressure and vacuum to seal itself over the plug hole. Made from food grade silicon, diameter: 100mm.

(Prices exclude VAT)

189361 Universal Sink Plug \$5 €4 £3.29



Pegless Travel Clothes Line

No pegs needed for this elasticated clothes line as the twisted cords act to trap the corners of clothes, or towels once it is hung. There are also hooks attached to each end and suction cups so that you can hang your clothes up to dry almost anywhere.

(Prices exclude VAT)

189362 Pegless Travel Clothes Line \$5 €5 £3.54



Leatherman Surge

• 21 tools and replaceable blades

• 25 year warranty

The Surge is one of the largest Leatherman Multi Tools and has replaceable wire cutters and a unique blade exchanger to keep it in excellent condition.

Made from stainless steel. Includes needlenose pliers, hard and stranded wire cutters, electrical crimper, knives, saw, scissors, can and bottle openers and screwdrivers. Supplied with leather sheath to fit onto a belt.

Not for sale to persons under the age of 18.

(Prices exclude VAT)

219048 Leatherman Surge \$129 €113 £83.29



Lifeventure Packable Daysack

- Packs into a compact stuff sack

Great for everyday use when travelling, or simply for keeping packed away until needed, the Packable Daysack is a versatile piece of kit. It packs down to a small size, taking up very little space and is also very light (275g).

Made from lightweight ripstop fabric, it contains numerous compartments, has soft mesh shoulder straps and packs down neatly into its own stuff sack.

(Prices exclude VAT)

	\$	€	£
189336 Packable Daysack	\$26	€23	£16.66



Lifeventure Wash Bag

- With tuck away metal hanger

This classic folding wash bag is very versatile and holds a surprising amount of kit. It has several internal pockets and compartments which help you to organise your items.

The bag is made from tough cordura and hypalon fabric and has a detachable water resistant shower pocket, toothbrush pocket and detachable mirror. Available in two sizes.

(Prices exclude VAT)

	\$	€	£
189348 Small Wash Bag	\$23	€20	£14.99
189352 Large Wash Bag	\$26	€23	£16.66



Lifeventure Expedition Duffle

- The classic expedition load hauler

This Lifeventure Expedition bag is incredibly tough and built to the highest specification. Made from 1000 denier ripstop fabric with a 1600 denier reinforced base, it has top and side grab handles as well as a shoulder strap with metal D-rings. Available in 100 litre or wheeled 120 litre capacities.

(Prices exclude VAT)

	\$	€	£
189333 100 Litre	\$35	€30	£22.49
222299 120 Litre (wheeled)	\$58	€51	£37.49

Lifeventure Wash Holdall

- Detachable mirror and metal hanger

This Wash Holdall has one large internal section for storing most of your washgear, as well as smaller internal pocket and two external gusseted end pockets for all your extra bits and pieces. Made from tough cordura and hypalon fabric, it also has a tuck-away metal hanger and detachable mirror.

(Prices exclude VAT)

	\$	€	£
189353 Wash Holdall	\$23	€20	£14.99



Lifeventure RFiD Phone Wallet

- Ideal for smartphones

These protective cases are made from tough nylon fabrics and have a soft fleece lining, ideal for protecting your smart phone. They also have an internal RFiD-protected pocket for bank cards. Dimensions: 145 x 80 x 20 mm.

(Prices exclude VAT)

	\$	€	£
222264 Black	\$12	€10	£7.49
222265 Green	\$12	€10	£7.49
222266 Grey	\$12	€10	£7.49
222267 Purple	\$12	€10	£7.49



Hip Pack

The LifeVenture Hip Pack is available in three sizes all with a good sized main compartment, adjustable waist belt and an internal zipped pocket, the three litre version also has two side accessory pockets. They are constructed from hard-wearing Cordura fabric with double-stitched seams for extra durability.

(Prices exclude VAT)

	\$	€	£
222268 1 Litre	\$18	€16	£11.50
222269 2 Litre	\$19	€17	£12.49
222270 3 Litre	\$23	€20	£14.99



DriStore Vacuum Bags

- Vacuum sealed compression system

DriStore Vacuum Bags are tough, vacuum-sealed sacks that can reduce their contents by up to 66%. They use a self-sealing valve and are waterproof with a fully sealed plastic zip. Each pack contains two vacuum bags. Dimensions: 51 x 71cm, weight: 78g.

(Prices exclude VAT)

	\$	€	£
217882 DriStore Vacuum Bags	\$18	€16	£11.66

Exped Waterproof Compression Bag

- Roll top closure with quick release buckle

These waterproof compression bags are ideal for keeping your belongings dry whilst also allowing them to be squeezed into or strapped onto the outside of a rucksack. A flat purge valve allows excess air to be expelled and horizontal compression straps keep everything compact. Available in three sizes.

(Prices exclude VAT)

	\$	€	£
220752 Small: 13 litres	\$23	€20	£14.99
220753 Medium: 19 litres	\$26	€23	£16.66
220754 Large: 36 litres	\$30	€26	£19.16





Aquapac Waterproof PDA Cases

•100% waterproof and dustproof

The Aquapac range are guaranteed submersible to five metres (15 feet) and also ensure that dust and sand won't get into your belongings. They are made from UV stabilised TPU material so won't be broken down or discoloured by sunlight. If dropped in water they will float easily. Available in a range of sizes to suit all needs, ranging from the small case, which is suitable for GPS units and phones, to the large case, which will fit multiple items such as first aid kits and maps and is a good size for your tablet or iPad.

(Prices exclude VAT)

	\$	€	£
182066 Small PDA Case	\$22	€19	£14.16
206750 Medium PDA Case	\$26	€23	£16.66
206751 Large PDA Case	\$31	€27	£19.99

Vista Waterproof Organisers

•Transparent wallet with weatherproof zipper

These waterproof document bags are made from PU-Mesh laminate which is environmentally friendly (PVC free) and completely waterproof. It is also UV resistant, ensuring that it doesn't become discoloured over time. The transparent material also lets you easily see the contents of the bag without having to open it. Access is via a strong weatherproof zipper. Available in three sizes: A6, A5 and A4.

(Prices exclude VAT)

	\$	€	£
174744 A6: 105 x 148mm	\$14	€12	£8.75
174745 A5: 148 x 210mm	\$17	€15	£11.25
174746 A4: 210 x 297mm	\$22	€19	£14.17



Silva Dry Bags

•Available in a range of sizes

These dry bags from Silva will keep your belongings dry and free from sand or dust, whatever the conditions. They are very easy to stuff and close - just roll the top edges at least three times and then close the buckle. Bags are available in four different sizes so that you can choose the size which best suits your needs. They also come in prominent colours which makes them easy to find in your backpack. Manufactured from 30 denier cordura fabric which is tough and durable, these dry bags are completely waterproof and flexible down to temperatures of -12°C.

(Prices exclude VAT)

	\$	€	£
210374 6 Litre	\$14	€12	£9.16
210375 12 Litre	\$17	€15	£10.83
210376 24 Litre	\$21	€19	£13.75
210377 36 Litre	\$26	€23	£16.66



Ortlieb Document Bags

•100% waterproof

These Ortlieb Document Bags are made of UV, tear and crease resistant fabric which is both dustproof and waterproof. The seams are extremely strong and they are tested to withstand extreme atmospheric temperatures and repeated use in the toughest conditions. They are perfect for the safe storage of maps, passports and other important documents whilst travelling or in the field, and they are also suitable for keeping electronic devices (such as GPS, mobile phones or MP3 players) safe and dry.

Cases are available in four sizes (A3, A4, A5 and A6) and come with a neck cord.

(Prices exclude VAT)

	\$	€	£
174693 A6: 105 x 148mm	\$11	€10	£7.08
174694 A5: 148 x 210mm	\$12	€10	£7.50
174695 A4: 210 x 297mm	\$13	€11	£8.33
174696 A3: 297 x 420mm	\$14	€12	£9.16



Exped Cloudburst Waterproof Rucksack

•Roll top closure and fully taped seams

The Cloudburst is a waterproof and lightweight rucksack with a 25 litre volume. The roll top closure ensures that contents stay dry under all conditions and, when not in use, it packs down to a convenient size. Airy mesh shoulder straps and a foam back insert ensure that the pack is comfortable to wear and a shock cord web allows outside storage of clothing and helmets. Available in olive green or black.

(Prices exclude VAT)

	\$	€	£
220764 Olive green	\$42	€37	£27.49
220765 Black	\$42	€37	£27.49



Peli Cases

•Complete protection from water, dust and chemicals

Peli Cases are unbreakable, waterproof, dustproof, chemical resistant, and corrosion proof and so offer complete protection for your equipment. Made from ultra-high impact structural copolymer they are extremely strong and durable. The exclusive 6.4mm neoprene o-ring and ABS latches seal perfectly and an automatic purge valve allows for quick equalisation after changes in atmospheric pressure. Foam set supplied with all cases for protection against vibration or shock.

Available in three sizes: Small (1200), Medium (1450) and Large (1560).

Small: 270 x 246 x 124mm, 1.4kg; Medium: 406 x 330 x 174mm, 2.9kg; Large: 560 x 455 x 265mm, 7.7kg.

(Prices exclude VAT)

	\$	€	£
196143 Small Case (1200)	\$84	€73	£54.16
196575 Medium Case (1450)	\$161	€141	£104.17
196576 Large Case (1560)	\$296	€260	£191.67

Bottom Dragging Net

This "D" shaped net is designed for collecting specimens from the bottom of a stream or pond. The rubbing bar, which runs along the long side of the net head, protects the frame from the wear and tear caused by dragging it along the pond bottom. The net measures 30 x 15cm and the plastic handle is 91cm long. Mesh size is approximately 1 x 2mm.

(Prices exclude VAT)

186962 Bottom Dragging Net \$9 €8 £5.82



Specimen Trays

These sub-divided specimen trays allow for sorting and counting your pond dipping catch. Available as a rectangular version which has six compartments, or as a round version with nine compartments. The nine pocket tray also has a lid.

(Prices exclude VAT)

180109 Six Pocket Specimen Tray \$9 €8 £5.83
185095 Nine Pocket Specimen Tray \$10 €8 £6.25



Petri Dishes

90mm triple-vent Petri Dishes for general lab and field use. Aseptically (non-sterile) produced from high quality rigid polystyrene.

(Prices exclude VAT)

210198 Pack of 10 \$3 €2 £1.66
210200 Pack of 100 \$26 €23 £16.66



Featherweight Forceps

The innovative design of these forceps includes both narrow and wide tips. Turned one way, they have narrow tips and turned the other way, the tips are wide and rounded. Made of very flexible stainless steel, these featherweight forceps will not crush fragile specimens and so are ideal for picking up delicate organisms for sorting and observation.

(Prices exclude VAT)

211921 Featherweight Forceps \$10 €8 £6.25



Graduated Pipette

These plastic pasteur pipettes have a capacity of 3ml and are ideal for sorting through and picking up tiny creatures found when pond dipping or rockpooling. They can also be used to transfer small specimens to a well slide for observation under a microscope.

Available either singly or in packs of ten or a hundred.

(Prices exclude VAT)

190577 Single pipette \$0 €0 £0.10
180191 Pack of 10 \$1 €1 £0.83
180268 Pack of 100 \$12 €10 £7.50

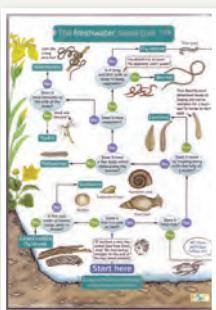


The Freshwater Name Trail (Waterproof)

Richard Orton *et al* (1996)

This eight page fold out chart provides a fully illustrated key which will help users to identify the main animal groups found in freshwater habitats. None of the identification in the key goes beyond family level and some stay at the phylum or class level. Aimed at Key Stage 2 and above.

194090 \$9 €8 £5.99



Economy Pond Nets

The Economy Pond net is made from coarse, knotless mesh which will not run if holed. It will not damage specimens and has oblong holes measuring approximately 2mm x 1mm. The plastic handle means that the net is very lightweight and so ideal for use by children. Available in three sizes.

(Prices exclude VAT)

	\$	€	£
186959 15 x 13cm net, 76cm handle	\$6	€6	£4.16
186960 20 x 15cm net, 91cm handle	\$8	€7	£4.99
186961 25 x 17cm net, 91cm handle	\$9	€8	£5.82



White Sampling Trays

These white trays are perfect for taking on field trips as they are durable and easy to clean. The small trays are ideal for pond sampling and the larger ones for sorting leaf litter. Both sizes are available either singly or in packs of three.

(Prices exclude VAT)

	\$	€	£
175967 Small: Single tray	\$5	€4	£2.92
193213 Small: Pack of three trays	\$13	€11	£8.33
175968 Large: Single tray	\$6	€5	£3.75
193214 Large: Pack of three trays	\$17	€15	£10.83



Magnifying Glass

These traditional style magnifying glasses are suitable for use by children or adults. The lens is made from plastic which makes it very safe, even for younger children and the casing is extremely robust. Available in two sizes: The mini magnifying glass has a 3.5cm diameter lens and 4x magnification. The large magnifying glass has a 6cm diameter lens and 3x magnification. Colours may vary.

(Prices exclude VAT)

	\$	€	£
181296 Mini Magnifying Glass	\$3	€3	£2.08
185153 Large Magnifying Glass	\$10	€9	£6.66



Gowland Plastic Hand Lens

Economical plastic hand lenses for examining plant or insect specimens up close, perfect for use on field trips and in the classroom. These sturdy, high quality plastic lenses have a lens diameter of 15mm, making them ideal for carrying in a pocket or attaching to a lanyard. Available in three magnification strengths: x5, x8 and x10.

(Prices exclude VAT)

	\$	€	£
193529 x5 Magnification	\$5	€5	£3.33
193530 x8 Magnification	\$5	€5	£3.42
193531 x10 Magnification	\$5	€5	£3.50

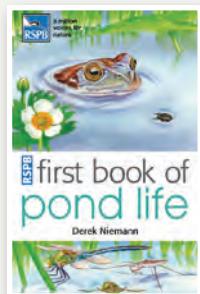


RSPB First Book of Pond Life

Derek Niemann *et al* (2012)

This RSPB spotter's guide includes information on 35 common pond species. Beautiful full-page illustrations are accompanied by key information about each creature. A spotter's chart for children to complete and links to internet-based activities in each book, mean that children can extend the fun.

202385 Pbk \$8 €7 £4.99



ROCK POOLING

ROCK POOLING

Rock pooling is a great way to find out more about the organisms living along our coastlines and is a favourite activity for children and adults alike. A constantly changing environment and exposure to rough waves means that the plants and animals living in rock pools are incredibly hardy and fascinating to study. Delve beneath the surface of the water, dig beneath the seaweed and you are sure to be rewarded.

NHBS stocks a large range of nets, buckets, trays and magnifiers to help equip the young rock pooler. Along with a field guide or FSC guide you'll have everything you need to start your own rock pool investigations. Or why not choose from one of our rock pooling kits which provide everything you need in one convenient package.

SAVE
£33.27
OFF RRP

**Class Rock Pooling Kit**

• Class sized educational kit, ideal for children at Key Stage 2 or above in school or wildlife groups

The sampling nets feature knotless mesh which will not run if holed and will not harm specimens. The mesh is attached to a plastic handle, making a lightweight net ideal for use by children. The sampling tray allows you to sort through your catch and specimens can be held in the bucket and sampling pots for further analysis. Magnifying pots also let children look more closely at their catch before using the laminated FSC guide for identification.

(Prices exclude VAT) \$ € £
196769 Class Rock Pooling Kit \$222 €195 £144.16

KIT INCLUDES:

- 10 x Large sampling nets
- 10 x Sampling Trays
- 10 x Magnifying pots
- 20 x Collecting Pots
- 2 x 2.5 litre Buckets
- 10 x Rocky Shore Name Trail Identification Guides

**Educational Rock Pooling Kit**

• Ideal for children at Key Stage 2 and above

The pond net is available in three sizes. The mini net is great for smaller children as its short handle and small head makes it more manageable. The small and large nets are perfect for older children and adults and the large net, in particular, will make it easy to get into those hard to reach crevices. All nets features knotless mesh which will not run if holed and will not harm specimens. The fully illustrated and laminated identification key is produced by the FSC and covers the main animal and plant groups found on British rocky shores.

All kits contain:



• Pond net	• White sampling tray
• 5 x 60ml collecting pots	• Plastic pipette (3ml)
• Magnifying pot (3.5x magnification)	• Rocky Shore Name Trail identification guide

(Prices exclude VAT)

192241 Rock Pooling Kit: Mini Net \$17 €15 £10.82
184839 Rock Pooling Kit: Small Net \$20 €18 £12.92
185982 Rock Pooling Kit: Large Net \$23 €20 £14.99

**Hydrophone Kit**

• Listen to life underwater

The NHBS Hydrophone Kit provides you with everything you need to access the amazing world of underwater sound. Either record the sound using the H1 digital recorder or listen directly using the speaker or a pair of headphones. Perfect for listening to life in rock pools: hear the tapping of a hermit crab scuttling along the rocks and the rasping of limpets scraping algae with their radula. Even listen to the bird-like squeaking of shrimp as they feed underwater in these fascinating habitats. A hydrophone adds a whole new dimension to the experience of rock pooling. Includes a H1 digital recorder and a condenser hydrophone.

(Prices exclude VAT) \$ € £
202789 Hydrophone Kit \$225 €198 £145.83



Small Hand Net

• Suitable for younger children

These small hand nets are perfect for younger children as they have a short handle and are a manageable size for small hands. The Pond & Aquarium Net has a net head measuring 12 x 10cm and a 30cm handle. The net bag is shallow and has a reinforced gusset, making it very durable. The Aquarium Net has a 21 x 25cm net head and 37cm handle. Its fine white netting is gentle on delicate organisms.

(Prices exclude VAT)

	\$	€	£
186956 Pond & Aquarium Net	\$4	€4	£2.71
185973 Aquarium Net	\$3	€2	£1.66

White Plastic Bucket

• For temporary storage of rockpool specimens

These natural plastic buckets are strong and durable and come with a white, tight fitting lid and plastic handle for easy transportation. They are ideal for temporary storage of rock pool and seashore specimens and will keep them safe for observation before they are returned to their natural habitat. Available with either 2.5 litre or 5 litre capacity.



(Prices exclude VAT)

	\$	€	£
197160 2.5 litre	\$3	€2	£1.66
197159 5 litre	\$3	€3	£2.04

Aquascope Underwater Viewer

• View the underwater world from the comfort of dry land

An Aquascope is a great way of viewing the underwater world from the safety and comfort of a boat or dry land. It works by eliminating both water surface glare and internal reflection, thereby allowing underwater viewing as far as water clarity and light will permit. It is a great educational tool, giving children and adults alike a glimpse into the fascinating plants, creatures and habitats that lie beneath the surface of our seas and rockpools. The Small Aquascope requires no assembly and is a convenient size for transporting and storing. The Large Aquascope comes in three pieces, making it simple to transport.

(Prices exclude VAT)

	\$	€	£
202609 Small Aquascope	\$30	€26	£19.16
199105 Large Aquascope	\$55	€49	£35.83

Bug Box Magnifying Pot

• Clear pot with snap on lid and 3.5x magnifier

The Bug Box Magnifying Pot is a clear plastic pot with a snap on lid. The lid has a high quality 3.5x magnifier, making it ideal for viewing small organisms or plants from rockpools up close. A measuring scale on the base allows an estimation of size. The pot measures 7cm in diameter and 6cm in height.



(Prices exclude VAT)

	\$	€	£
175974 Bug Box Magnifying Pot	\$5	€4	£3.00

RSPB First Book of the Seashore

Derek Niemann (2012)

This book provides an enchanting first look at the outside world for young nature spotters. Readers are introduced to 35 common seashore creatures and plants and are encouraged to find out more about them. A spotter's guide can be filled in as they spot each species.

202384 Pbk

	\$	€	£
202384 Pbk	\$8	€7	£4.99

100ml Collecting Pot

• Clear pots with secure screw-on lids

These sampling containers are made from see-through clear rigid polystyrene and have secure screw-on lids. They are recommended for liquids and so are ideal for keeping specimens temporarily when rock pooling. Available either singly or in packs of 10, 30 or 100.

(Prices exclude VAT)

	\$	€	£
200475 Single Pot	\$1	€1	£0.50
193753 Pack of 10	\$7	€6	£4.79
215294 Pack of 30	\$20	€17	£12.67
193754 Pack of 100	\$64	€57	£41.67



Heavy Duty Tray

• Study your rockpool catch in these strong white trays



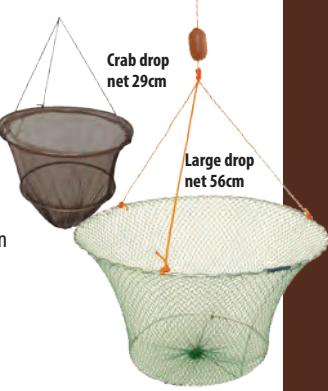
These heavy duty white trays are very strong and are stable enough to be carried full of water. They can be used to store and look at rock pool specimens. Available in three sizes with volumes of 2.5, 3.8 and 4.1 litres.

(Prices exclude VAT)

	\$	€	£
175970 Small (2.5 litre)	\$9	€8	£5.82
175971 Medium (3.8 litre)	\$13	€11	£8.33
175973 Large (4.1 litre)	\$17	€15	£10.83

Drop Net

• Catch crabs, prawns and shrimp from a pier or jetty



These Drop Nets are ideal for using off piers and jetties and can be used to catch a variety of animals such as prawns, shrimp and crab. Bait can be placed into the bottom of the net before lowering it into the water. There are no hooks on the nets which makes them suitable for all ages. Available in two sizes: the Crab Drop Net is 29cm in diameter and comes with a 10m lowering line. The Large Drop Net is 56cm in diameter and has a 15m line.

(Prices exclude VAT)

	\$	€	£
218474 Crab Drop Net	\$5	€4	£3.29
218529 Large Drop Net	\$9	€8	£5.79



(Prices exclude VAT)

	\$	€	£
202609 Small Aquascope	\$30	€26	£19.16
199105 Large Aquascope	\$55	€49	£35.83

(Prices exclude VAT)

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199105 Large Aquascope	\$55	€49	£35.83

(Prices exclude VAT)

	\$	€	£
202609 Small Aquascope	\$30	€26	£19.16
199105 Large Aquas			



BUG HUNTING

Insects, bugs and creepy crawlies are fascinating to the younger naturalist, and it is never too early to begin encouraging their interest. A net or pooter, magnifier and basic field guide are all you need to start collecting and studying the species found in your local area. Our Class Bug Hunting Kit contains everything you need to run an entomology focused field excursion. For use in the classroom a butterfly garden or insect breeder will allow children to study up close the life cycles, development and behaviour of a variety of insects.

Class Bug Hunting (Entomology) Kit

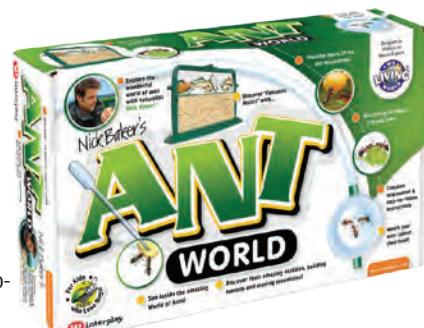
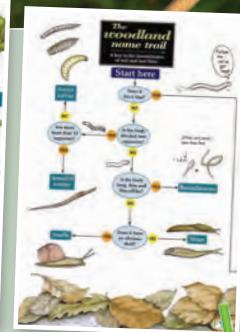
This class-sized entomology kit is perfect for school and wildlife groups and is ideal for Key Stage 2/3 children. The beating sheet can be laid out or held beneath trees or bushes to collect falling insects 'beaten' from foliage. The sweep net features a 30cm diameter net and wooden handle and is suitable for use in grasses, bracken and other non-coarse vegetation. The trays, collecting pots and magnification pots are perfect for sorting, storing and studying collected specimens. The FSC Woodland Name Trail and Bugs on Bushes will allow children to identify many of the key species found in both the soil and leaf litter as well as those on plants.

(Prices exclude VAT) \$ 226 € 199 £ 146.66
196768 Class Bug Hunting Kit

SAVE
£16.29
OFF RRP

KIT INCLUDES :

- 2 x Insect beating sheets
- 3 x Beginners sweep nets
- 10 x Magnification pots
- 5 x Pooters
- 5 x Large sampling trays
- 20 x Straight sided sampling containers
- 5 x FSC Woodland Name Trail Guides
- 5 x FSC Bugs on Bushes Guides



Educational Bug Hunting Kit

This kit is ideal for Key Stage 3/4 children and above, although, with a bit of guidance, it will also be useful for younger children.

The sweep net features a 30cm diameter net and wooden handle. The net has a reinforced collar and is suitable for collecting invertebrates in grasses, bracken and other non-coarse vegetation. The pooter is useful for collecting smaller bugs and insects. The AIDGAP guide allows non-specialists to identify living animals collected in terrestrial and semi-terrestrial habitats and includes detailed ecological notes for all groups. The kit contains:

• Beginners sweep net	• 3.5x magnifying pot
• Pooter	• 5 x 60ml collecting pots
• AIDGAP guide 'A key to the major groups of British Terrestrial Invertebrates'	

Nick Baker's Ant World

Nick Baker's Ant World lets you study the fascinating lives of ants in a small and portable environment. Watch the ants build tunnels, keep their home tidy and feed each other and study their fascinating methods of communication, such as chemo-communication and ant "morse code". Ant World provides hours of fun as well as being a great educational resource for budding naturalists. Children are encouraged to collect their own ants following the instructions in the included manual. An order form to purchase ants is also included in the box.

Contains: Plastic ant housing, 2 x shades, scene stickers, magnifier bowl, tubing, feeding pipette, tunnelling sand and instruction manual. Suitable for children aged 5 and above.

(Prices exclude VAT) \$ 49 € 44 £ 32.08
188355 Educational Bug Hunting Kit

(Prices exclude VAT) \$ 19 € 17 £ 12.49
211878 Nick Baker's Ant World



Butterfly Garden School Kit

•Study the butterfly lifecycle first hand

This educational butterfly rearing kit has been designed for use in the classroom, and will enable each student to raise his or her own painted lady butterfly. This provides students with a unique opportunity to study the butterfly lifecycle first hand. The kit also includes a range of educational material which will provide opportunities to teach science, maths, environmental studies and environmental awareness.

Each kit contains: Collapsible 63cm butterfly habitat, 33 live caterpillars, 33 vials and lids, feeding pipette, plastic spoon, brush and caterpillar food along with full instructions and an activity guide.

Please note that this item is only available to schools and educational establishments.

	\$	€	£
216743 Butterfly Garden School Kit	\$77	€68	£49.99

Beginners Nets

•Interchangeable bags

The Beginners Net has a simple wire frame construction and a wooden handle. Available with a tough white bag for sweep netting or a fine black mesh butterfly net. Spare / replacement nets are available.

	\$	€	£
192143 Butterfly Net	\$26	€23	£17.08
187176 Sweep Net	\$30	€26	£19.16
192144 Spare Butterfly Net	\$14	€12	£9.16
192142 Spare Sweep Net	\$17	€15	£11.25



Screw-Fit Pooter

•Collect and observe live insects

These pooters are designed to assist in the safe collection of live invertebrates and are a valuable resource for field work and school projects. Suck through one tube whilst directing the other over small insects to draw them into the chamber. The Screw-Fit Pooter measures 4.5cm diameter x 6cm height and has rubber tubing with an internal diameter of 5mm.

	\$	€	£
175929 Screw-Fit Pooter	\$5	€5	£3.32



Bug Viewer

•Two magnifying lenses

Double magnifying container for viewing insects. Study live bugs at two different magnifications. With the small lens up, view what's in your jar at twice the size (x2). With the small lens down, magnification is x4 for closer study.

The jar has a push-on lid with air holes, and measuring scale on the base. Suitable for age five and up.

	\$	€	£
177619 Bug Viewer	\$5	€5	£3.32



Mini Soil Emergence Trap

•Rear insects from larvae present in soil

The Mini Soil Emergence Trap can be used to rear insects from larvae present in samples of soil, leaf litter, rotting wood and even compost. It is a fantastic educational resource and will allow students to observe the life history and developmental stages of a variety of insects. The soil sample is first placed into the bottom container. Emerging adults will then fly upwards from this container, through the funnel above and into a top chamber from where they can be collected, studied and released. Available either singly or in a pack of six.



(Prices exclude VAT)

	\$	€	£
211220 Single Trap	\$15	€14	£9.96
211221 Pack of Six Traps	\$81	€71	£52.46

Insect Breeder

•Rear and study insects from water-borne larvae

The Insect Breeder provides an easy method of rearing insects from larvae present in water samples. To do this, water samples are collected from ponds and other natural pools and placed into the bottom container. The larvae present in this sample will emerge as adults which fly into the container above. They can then be collected from this container for studying. The Insect Breeder is a great way to introduce students to the life stages, development and variety of insects which have water-borne larval stages. Available either singly or in a pack of six.



(Prices exclude VAT)

	\$	€	£
211213 Single Breeder	\$9	€8	£5.79
211219 Pack of Six Breeders	\$51	€45	£33.29

Economy Butterfly Net

•Great value butterfly net

This Butterfly Net has a deep fine mesh that allows for excellent airflow, thus providing a smooth action and minimising damage to delicate specimens. The plastic handle is very lightweight, making it ideal for use by children.



(Prices exclude VAT)

	\$	€	£
186955 Economy Butterfly Net	\$15	€14	£9.99

Gowlland Plastic Hand Lens

•Lightweight and economical

The Gowlland lenses are a great choice for children as they are made from plastic and so are lightweight, economical, and safe. Small enough to tuck into a pocket or bag, they are available in three different magnification strengths.



(Prices exclude VAT)

	\$	€	£
193529 x5 Magnification	\$5	€5	£3.33
193530 x8 Magnification	\$5	€5	£3.42
193531 x10 Magnification	\$5	€5	£3.50

Pop-Up Port-a-Bug

•A safe temporary habitat for insects

The Pop-Up Port-a-Bug is perfect for using in the garden and on field trips. This collapsible cage folds flat into the carry bag provided. The sides are made from soft mesh which will not damage insect wings but is escape proof and fine enough to allow you to observe your insects before letting them go.



(Prices exclude VAT)

	\$	€	£
177618 Pop-Up Port-a-Bug	\$6	€6	£4.16

FOREST SCHOOL

Forest Schools provide an important opportunity for children to learn and play in a natural, outdoor environment. Hands-on learning experiences are a vital component of this type of education and key aims are to inspire and encourage individual ability, confidence and self-esteem. Through activities such as bushcraft, storytelling and nature study children can discover more about their local landscape whilst also learning how to handle risks and work co-operatively with others.

All of the products featured on this page can be used to help children study their environment and local wildlife in more depth. The use of trail cameras and night vision scopes allow observation of nocturnal animals and their fascinating behaviours, whilst bat detectors will give them an exciting glimpse into the world of bat echolocation.



Bushnell Trophy Cam 2014

This economical and weatherproof motion-activated camera is ideal for capturing images and videos of the wildlife in your woodland or outdoor classroom. It will record 5MP images and 720 x 480p videos directly onto an internal SD card - in full colour during the day and in black and white at night. The motion sensor is activated up to a distance of 13m (45 feet) and the infrared night vision flash will illuminate up to 24m.

Specify how many images are taken per trigger as well as the length of video recorded, and set the delay time between triggers. A time lapse function also lets you capture images at specified intervals (from 1 minute to 1 hour) between the hours of your choice.

The Trophy Cam 2014 is powered by 8 x AA batteries which will last for up to a year. It has a standard tripod socket and comes with a web belt for attaching to a tree or post. It is also available as a starter bundle which includes the camera, 8 batteries and a 4GB SD card.

(Prices exclude VAT)

	\$	€	£
214043 Trophy Cam 2014	\$166	€146	£107.50
214358 Trophy Cam 2014: Starter Bundle	\$179	€157	£115.79



Bushnell NatureView HD Max

This NatureView Camera has a number of features which make wildlife photography even more exciting. A built-in LCD colour viewing screen lets you view your images and videos whilst in the field and also enables you to take some test images to ensure your setup is correct. The NatureView also includes two close focus lenses providing a minimum focal distance of 25cm and 46cm, letting you capture great close-up images of wildlife. This makes it perfect for monitoring your bird feeder or mammal feeding station. This camera comes in a natural green colour and has an adjustable web belt for easy attachment to trees or posts. Powered by 12 x AA batteries and records onto an SD card (up to 32GB supported). Also available as a starter bundle which contains the camera, 12 x AA batteries and a 4GB SDHC card.

(Prices exclude VAT)

	\$	€	£
206086 NatureView HD Max	\$337	€296	£218.29
206864 NatureView HD Max - Starter Bundle	\$352	€309	£227.92



LED 3 Headtorch

This super-bright LED headlight has three LEDs and an impressive battery life of 120 hours. It produces a spot light beam for focused illumination. Powered by three AAA batteries (included) and is water resistant. It has a comfortable elasticated strap which fits both around and over the top of the head for improved stability. The angle of the beam can be adjusted through 90°.

(Prices exclude VAT)

	\$	€	£
219849 LED 3 Headtorch	\$8	€7	£5.42



Yukon Stringer Night Vision Monocular

The Yukon Stringer is an affordable night vision scope with the ability to record video onto an SD card (maximum 32GB, 2GB card included) or directly onto a PC or laptop. It is ideal for discovering more about nocturnal wildlife and for capturing videos of animals and behaviours that we normally do not have the opportunity to observe.

The Stringer has a built-in infrared illuminator featuring a Class 1 Laser Safety compliant laser diode which provides good visibility even in the darkest conditions. Available in two models: the 3.5 x 42mm has 3.5x magnification and a 42mm diameter lens - this lower magnification is good for when moving around. The 5 x 50 model offers high power 5x magnification and a large 50mm diameter lens which improves clarity in low light. Both have three easy to use buttons and a tripod socket for mounting. Powered by 2 x AA batteries (not included) and supplied with carrying case, wrist strap, 2GB SD card, USB cable, cleaning cloth and instruction manual.

(Prices exclude VAT)

	\$	€	£
216921 Stringer: 3.5 x 42	\$328	€288	£212.50
212961 Stringer: 5 x 50	\$386	€339	£249.96

Hardboard Clipboard

This clipboard is made from hardboard and is a suitable size for A4 paper. The strong metal clip will hold papers securely, even in windy conditions and a top loop is useful for hanging the clipboard when not in use or for tying on a pencil or pen. The clipboard is both sturdy and economical and is a useful addition to your kit when working, making notes or sketching in the outdoors.

(Prices exclude VAT)

	\$	€	£
192411 Hardboard Clipboard	\$3	€3	£2.24



Magenta Bat Detector

The Magenta is a fantastic entry-level detector which converts bat ultrasonic signals into the human audible range so that you can hear their calls. Effective over a frequency range of 10kHz to 130kHz it provides an excellent introduction to bat detecting. It has a built-in LED torch, a socket for connection of headphones and a wrist strap. Available in two models: the Bat4 has a large frequency dial with top illumination and evenly spaced frequency markings for ease of use. The Bat5 has a digital display with backlit LCD visible in all light conditions. Powered by 4 x AAA batteries (not included). Also available as a starter kit which includes four AAA batteries and an FSC Guide to British Bats.

(Prices exclude VAT)

	\$	€	£
171848 Magenta Bat4 Bat Detector	\$76	€67	£49.13
171849 Magenta Bat5 Bat Detector	\$108	€95	£69.96
215870 Magenta Bat5 Starter Kit	\$84	€74	£54.58
215869 Magenta Bat4 Starter Kit	\$116	€102	£74.96
181818 Magenta Bat Detector Case	\$12	€10	£7.49



Nikon Sportstar EX DCF Compact Binoculars

These compact binoculars are ideal for children as they are small and lightweight. Multi-layer coated lenses deliver bright, clear images with well balanced colour. They have a fantastic field of view to aid in scanning large landscapes or observing fast-moving animals and a good close focus distance for looking at insects. The sleek rubber coating makes them comfortable to hold and they are waterproof to a depth of 2m for 5 minutes. Supplied with a padded case, lens and eyepiece caps and a neck strap.

(Prices exclude VAT)

	\$	€	£
211614 Nikon Sportstar 8 x 25	\$102	€89	£65.83



Safety Whistle

The Safety Whistle is made from toughened plastic and will produce a sound of up to 108dB. It is bright orange making it easy to find in low light conditions, and is an important part of the outdoor safety kit.

(Prices exclude VAT)

	\$	€	£
188618 Safety Whistle	\$4	€3	£2.30



Run Wild!: Outdoor Games and Adventures

Fiona Danks and Jo Schofield (2011)

Run Wild! Provides activity ideas and practical projects for all ages and all occasions, from outdoor games to woodland storytelling, wild navigation to planting trees.

190626 HBK	\$26	€23	£16.99
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The Wild Weather Book

Fiona Danks and Jo Schofield (2013)

Offers a wealth of suggestions for wild things to do outdoors on wet, windy and snowy days including creative projects, bad weather games and much more.

203824 PBK	\$14	€12	£8.99
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Elekon Batscanner

With Elekon's Batscanner detecting bat calls is easier than ever - just turn on the device and listen. This makes it great choice for teachers as, once the detector is switched on, it requires no attention or adjustments. Ultrasonic sounds are automatically transformed into the audible range and played through the built-in loudspeaker. The peak frequency is displayed on the screen immediately, even after a brief fly-by - this means that species are not missed simply because the wrong frequency was selected. Powered by 3 x AAA batteries (included).

(Prices exclude VAT)

194636 Elekon Batscanner	\$256	€225	£165.83
206690 Replacement Microphone	\$45	€40	£29.16



Hawke Optics Premier Binoculars

Hawke Optics Premier Binoculars are lightweight and compact and have an open hinge design which allows them to be folded down when not in use. They are waterproof and fogproof and feature multi-coated optics with BAK-4 roof prism to deliver sharp images. A wide angle optical system ensures an impressive field of view. Premier binoculars have extended eye relief for wearers of spectacles and a central focusing wheel for one handed use. Supplied with a soft carry case, padded neck strap and cleaning cloth.

(Prices exclude VAT)

209823 Hawke Optics Premier 8 x 25	\$64	€56	£41.63
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40 Piece First Aid Kit

The 40 Piece First Aid Kit is a comprehensive and compact first aid kit all contained in a soft nylon roll-up bag. Items are arranged in easy to see compartments and include bandages, tape, sterile pads and dressings, plasters, cleansing wipes, swabs, gloves, safety pins and an ice pack. Pack measures 220 x 150 x 70mm.

(Prices exclude VAT)

194051 40 Piece First Aid Kit	\$9	€8	£5.83
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Lifesystems Survival Bag

Strong, lightweight bag made from tough plastic material. Designed to reduce the loss of body heat in an emergency, this bright orange bag will serve as a personal emergency shelter.

(Prices exclude VAT)

188615 Lifesystems Survival Bag	\$5	€4	£2.92
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Run Wild!: Outdoor Games and Adventures

Fiona Danks and Jo Schofield (2011)

Run Wild! Provides activity ideas and practical projects for all ages and all occasions, from outdoor games to woodland storytelling, wild navigation to planting trees.

190626 HBK	\$26	€23	£16.99
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The Wild Weather Book

Fiona Danks and Jo Schofield (2013)

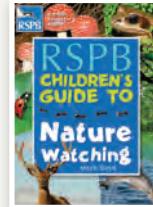
Offers a wealth of suggestions for wild things to do outdoors on wet, windy and snowy days including creative projects, bad weather games and much more.

203824 PBK	\$14	€12	£8.99
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RSPB Children's Guide to Nature Watching

Mark Boyd (2013)

A practical, exciting and comprehensive introduction to nature watching for children. Includes information on where and when to go, what equipment you need and how to take field notes.



WILDLIFE GARDEN

In many of our towns and cities, green space is limited, and it can be difficult to find ways to encourage children to become excited about nature and wildlife. Creating a wildlife garden in a back yard or school grounds will provide children with a great way to experience wildlife up close, and will also help to support our declining wildlife populations by providing them with vital habitat. Wildlife gardens also provide an excellent setting for educational activities which can teach children about a wide range of plant and animal species, as well as the interactions between them throughout the changing seasons.

When designing your garden, take time to think about the overall structure and the plants you want to grow – flowers for pollinating insects and piles of logs for mammals, amphibians and invertebrates are a great choice. If you have the space, a pond is a fantastic addition. Adding a range of habitat boxes and feeders for birds, bats, other mammals and amphibians will also help to provide safe breeding and resting spaces for a wide range of visitors.



Vivara Pro WoodStone Nest Box

Nest boxes are a fantastic way to encourage birds to nest in a wildlife garden. The Vivara Pro WoodStone Nest Box is available in two different sizes to suit different species. The 28mm is suitable for tree sparrows, blue tits, coal tits and great tits. The 32mm will also attract house sparrows, pied flycatchers and nuthatches. These nest boxes are long lasting and will make a great addition to a wildlife garden.

(Prices exclude VAT)	\$	€	£
209809 28mm nest box	\$27	€24	£17.46
209812 32mm nest box	\$27	€24	£17.46

Guardian Seed Feeder Pack

The Guardian Seed Feeder includes a plastic seed feeder and an exterior cage designed to keep out squirrels and larger birds. Providing feeders such as the Guardian Seed Feeder is a great way to encourage a wide range of bird species.

(Prices exclude VAT)	\$	€	£
216847 Two Port Feeder	\$37	€33	£24.16
216848 Four Port Feeder	\$45	€40	£29.16
216849 Six Port Feeder	\$49	€43	£31.66



Hanging Bird Table

Ideal for wildlife gardens with limited space providing an excellent feeding area for a range of garden birds. The mesh bottom lets water drain out keeping the food fresher for longer.

(Prices exclude VAT)	\$	€	£
216854 Hanging Bird Table	\$26	€23	£16.66

More bird feeders
See page 60–61



P60–61 ►



Nest Box Camera Starter Kit

This FSC timber bird box provides an excellent home for a wide range of garden birds and the fitted nest box camera offers a fantastic view inside the nest. The nestbox is constructed from FSC timber and has a 29mm entrance hole with a perspex side panel allowing light to enter to improve camera performance. The infrared camera provides colour footage during the day and black and white images at night. This lets you watch as birds build their nest and raise their young, without disturbing them.

The cable transmits the AV signal from the camera to your television and also provides the camera with power. A mains adapter is included with the kit. Resolution is 380 TV lines. Nest box dimensions: 340 x 225 x 210mm, weight 2.9kg.

(Prices exclude VAT)	\$	€	£
219846 Camera Starter Kit	\$103	€90	£66.66



More Nest Box Cameras

See page 96–97

P96–97 ►



Pole Mounted Bird Table

Providing a bird table stocked with tasty seeds is one sure fire way to get an abundance of birds in your garden. The Pole Mounted bird table has a mesh bottom and high sides to keep food dry whilst preventing food from being blown away.

(Prices exclude VAT)	\$	€	£
216853 Pole Mounted Bird Table	\$42	€37	£27.46

Hanging Bird Bath

The Hanging Bird Bath is a great way to provide garden birds with a source of fresh water which is important both as a drinking source and for bathing. The dish has a shallow end for smaller birds and fledglings.

(Prices exclude VAT)	\$	€	£
217281 Hanging Bird Bath	\$17	€15	£10.79



Gardenature Underwater Colour Camera with Night Vision

Capture high quality underwater video footage and view it on any television with the simple 'plug-in and view' system. The fully waterproof CCD colour video camera has built in illumination (infrared or white light) enabling viewing 24 hours a day. This is ideal for use in a garden pond giving an excellent view of life underwater. The camera will provide colour images during the day and black & white images at night. Each camera is supplied complete with instructions, fixings and mains adaptor. The camera comes with 25m of cable and is ready to use with everything you need to start watching in minutes.

(Prices exclude VAT)	\$	€	£
182678 Infrared Camera	\$269	€236	£174.17
182679 White Light Camera	\$282	€247	£182.50



USB Video Capture Device

This USB capture device can be used in conjunction with the Nest Box Camera Starter Kit and Underwater Colour Camera to stream footage from these cameras to a computer.

(Prices exclude VAT)	\$	€	£
209577 USB Video Capture Device	\$39	€34	£24.96



Insect Tower

Insects are fantastic pollinators and vital to the success of any wildlife garden. The Insect Tower is a great way to encourage insects with a range of habitats to suit different species including nesting tubes which are ideal for solitary bees. Other refuge areas will attract butterflies, ladybirds, lacewings and a variety of minibeasts.

(Prices exclude VAT)	\$	€	£
217363 Insect Tower	\$32	€28	£20.79



More Nest Boxes

& Habitats

See page 38–61

P38–61 ►



Bee and Bug Biome

The Bee and Bug Biome will provide valuable habitat in your wildlife garden for solitary bees and other insects. At a time when many of our native insects are struggling, this is a fantastic way to give them a helping hand. This biome also includes a free bee guide and wildflower seeds.

(Prices exclude VAT)	\$	€	£
199579 Bee and Bug Biome	\$24	€21	£15.79



Low Profile WoodStone Bat Box

Low Profile WoodStone Bat Box is an excellent addition to a wildlife garden providing a home for a range of UK bat species including common pipistrelles. This bat box can be hung from the side of a building or a tree and is constructed from long lasting WoodStone.

(Prices exclude VAT)	\$	€	£
210689 Low Profile Bat Box	\$39	€34	£24.96



Lifepond - Garden Wildlife Pond

The Lifepond small wildlife pond has been carefully designed to offer a home to the maximum amount of garden wildlife whilst using the minimum amount of water and taking up the smallest amount of space. This small pond has a unique raised design and provides the perfect wildlife habitat for small gardens, patios and decks. Made of strong and durable recyclable green plastic the pond will be stable on any level surface once filled with water and fully planted. When empty it can be easily transported and stored.

The Lifepond has a deepwater zone with sunning area, a shallow zone with a slope, a marsh plants zone, a climbing slope for amphibians and a wildlife refuge underneath. Measures 76 x 96 x 20cm.

(Prices exclude VAT)	\$	€	£
204616 Lifepond	\$103	€90	£66.62



Frogitat

The Frogitat is a safe, cool retreat ideal for the amphibians in your wildlife garden, especially in gardens with ponds or other damp areas that amphibians love. When siting the Frogitat place it in a cool, quiet area of the garden with some shade and a pond or damp area near by.

(Prices exclude VAT)	\$	€	£
191396 Frogitat	\$20	€18	£12.92



Hogitat Hedgehog Home

Encourage hedgehogs to take up residence in your wildlife garden with the Hogitat Hedgehog Home. The Hogitat provides a safe retreat for hedgehogs with a rust proof frame and waterproof roof. The natural appearance will blend into a wildlife garden and the hedgehogs will help keep slugs under control.

(Prices exclude VAT)	\$	€	£
191397 Hogitat Hedgehog Home	\$24	€21	£15.79

LABORATORY & CLASSROOM

There are many science projects that can be undertaken with a simple stereo microscope and they provide a great way to encourage children to appreciate the beauty and complexity of nature on a different scale. Field microscopes can even be taken into the outdoors for observation of specimens while you are out and about.

Trekker Field Microscope**•Easy to use, portable field microscope**

A great value, easy to use, 35x magnification field microscope. Simply place the specimen on the top of the microscope and focus using the thumbwheel underneath. A special magnetic holder can be used to hold the specimen if you wish.

Also available is a hard case to protect your Trekker when out and about and a TrekLink Camera Adapter which lets you connect your SLR camera to the Trekker microscope.



(Prices exclude VAT)

	\$	€	£
180582 Trekker Field Microscope	\$69	€61	£44.99
180583 Trekker Hard Case	\$12	€10	£7.49
180584 TrekLink Camera Adapter	\$26	€23	£16.66

**Motic LM-100 Field Microscope****•Portable battery-powered microscope**

Perfect for the younger scientist who wants a truly portable microscope. The LM-100 gives a massive x20-x100 magnification, is simple to operate and will provide children with a fascinating window into the microscopic world.

It can be used to view prepared specimen slides, larger objects such as rocks, insects, plants and pond water samples. Complete with a range of accessories and soft backpack carry case.

The LM-100 kit contains:

- LM-100 Microscope
- Eyepiece
- Slide stage
- Plastic accessories (pipette, stirrer, forceps, sample jar, plain slides, slides with specimen)
- Reversible stage with cover
- Assembly guide and experiment manual
- Soft carrying bag

(Prices exclude VAT)

	\$	€	£
193283 Motic LM-100 Field Microscope	\$77	€68	£49.99

Microscope
Accessories
See page 121



Lenses
& Magnifiers
See page 126-127



Sample
Containers
See page 129

**AM2111 Dino-Lite USB Digital Microscope****•Ideal for educational use**

The AM2111 has adjustable magnification of 10x-70x and additional 200x magnification when held directly above the subject. Four white LEDs provide constant illumination and videos are recorded at 640 x 480 pixel resolution. Software for Windows and Mac is included.

(Prices exclude VAT)

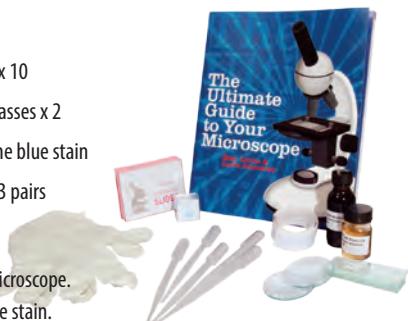
	\$	€	£
190225 AM2111 Dino-Lite Microscope	\$135	€119	£87.50

Beginner's Microscopy Kit**•Everything you need to make your own slide preparations**

This kit is ideal for beginners of all ages and provides everything you need to begin making slide preparations and observing them with your microscope. The stain contained within this kit is Methylene Blue which is used to stain animal, bacterial and blood tissue material and which makes the nuclei of cells more easily observable. Contents of the kit include:

The Ultimate Guide to Your Microscope book

- Slides x 50
- Coverslips x 100
- Cavity well slides x 10
- Slide labels x 50
- Mountant (aqueous)
- Pipettes x 10
- Watch glasses x 2
- Methylene blue stain
- Gloves x 3 pairs



Please note that this kit does not include a microscope. Children should be supervised when using the stain.

(Prices exclude VAT)

	\$	€	£
211325 Beginner's Microscopy Kit	\$42	€37	£27.46

DM6 Field Stereo Microscope**•Lightweight and robust**

The DM6 is a lightweight stereo microscope, ideal for classroom use. It has widefield x10 eyepieces and x2 objective lenses giving an overall magnification of x20. This can be extended to x50 with additional eyepieces. A battery powered LED incident light source provides illumination.

(Prices exclude VAT)

	\$	€	£
211570 DM6 Microscope	\$72	€63	£46.66
211572 x25 Eyepieces	\$28	€25	£18.29





Straight Sided Sampling Container

•Perfect for storing specimens

See-through clear crystal rigid polystyrene jars with secure screw-on lids. Recommended for liquids. Non-sterile.

(Prices exclude VAT)

	\$	€	£
193795 30ml: Pack of 10	\$4	€3	£2.49
193796 30ml: Pack of 100	\$31	€27	£19.99
193751 60ml: Pack of 10	\$5	€4	£3.00
193752 60ml: Pack of 100	\$41	€36	£26.66
193753 100ml: Pack of 10	\$7	€6	£4.79
193754 100ml: Pack of 100	\$64	€57	£41.67
193755 180ml: Pack of 10	\$10	€8	£6.25
193756 180ml: Pack of 100	\$90	€79	£58.33



Hand Held Magnifier

•Chunky magnifying glass, ideal for children

Lightweight and has a 100mm diameter lens and a large rubber non-slip handle. The main part provides 2x magnification and it is inset with 20mm diameter 3x and 4x magnifiers.

(Prices exclude VAT)

	\$	€	£
202230 Hand Held Magnifier	\$9	€8	£5.83

Young Naturalist Magnifying Pot Set

•Available in a pack of six or ten

Includes a clear tray and six individual transparent pots. Each pot has a magnifying lid and a measurement grid of 5mm squares on the bottom. Also available in a pack of ten without the tray.

(Prices exclude VAT)

	\$	€	£
202231 Set of 6	\$9	€8	£5.83

	\$	€	£
202236 Set of 10	\$10	€9	£6.66



Educational Composter

•Learn about decomposition and waste management

The Educational Composter is a fantastic way to teach pupils about the process of decomposition. Furthermore they can learn how food scraps and garden waste, when properly composted, can be used as a fertiliser for plants and gardens. The container is completely transparent allowing students to view the composting process and the associated changes in colour, texture, pH and temperature.

The Educational Composter is available either as a set of four one litre containers with carrying handles, or as a single 'giant' eight litre container. All composters come with a comprehensive product guide.

(Prices exclude VAT)

	\$	€	£
202225 Composter: 4 x 1 litre	\$46	€41	£29.99
202226 Composter: 1 x 8 litre	\$31	€27	£19.99

Grow Bell

•Observe the process of plant growth

This Grow Bell allows children to observe the process of plant growth in a self-contained mini greenhouse. The Grow Bell lets you conduct exciting experiments on different plant types growing in different light levels and temperatures.



The Bell possesses a specially designed removable inner pot which stands free of the outer base and which allows surplus water to keep the soil and roots moist for longer. A ventilator also allows you to regulate the moisture content of the air. The grow bell measures 26 x 24cm. Provided with a complete product guide.

(Prices exclude VAT)

	\$	€	£
202239 Grow Bell	\$28	€25	£18.33



Worm Composter

•View the breakdown of organic material

The Worm Composter is designed for use in educational settings and allows pupils to discover how worms recycle everyday food scraps, grass cuttings, sawdust, paper strips and leaves into a nutrient rich soil known as Vermicompost.

This container has a capacity of eight litres and is made from transparent red plastic which absorbs light but still allows students to view the worms at work. It is an ideal size for classroom use. The Worm Composter includes one specially designed red transparent container and one clear transparent inner liner with drainage/aeration holes. The red transparent lid has an adjustable ventilation cap and a comprehensive product guide is also included.

(Prices exclude VAT)

	\$	€	£
202227 Worm Composter	\$31	€27	£19.99

Clear and Dark Grow Bells

•Available separately or as a set

The Clear Grow Bell is a mini-greenhouse which lets you view the fascinating process of plant growth close up. The entire bell is made from transparent plastic which means that root growth can also be observed. The Dark Grow Bell allows you to see the effect of growing plants in complete darkness. It has a clear inner liner which means that you still can see the effects of these conditions on the plant roots. Both types of grow bell have an inner liner with drainage holes which helps to avoid the risk of overwatering. A vent in the top also allows the moisture content of the air inside to be regulated. These grow bells can also be purchased as a set which contains both the clear and dark versions.



(Prices exclude VAT)

	\$	€	£
202262 Clear Grow Bell	\$26	€23	£16.66
202265 Dark Grow Bell	\$28	€25	£18.33
202268 Clear and Dark Grow Bell Set	\$46	€41	£29.99

Ranging Poles

Ranging poles are available in either wood or steel and are two metres in length. Poles have solid steel points and are graduated red and white every 500mm. The 2m Sectional Steel Point Jointed Ranging Pole comes in two 1m sections and the height can be increased by adding extra 1m sections. A Ranging Pole Ring Clamp Tripod is also available to purchase separately. This can be used in conjunction with any of the ranging poles and provides a lightweight support which will clamp poles up to 32mm in diameter.

	\$	€	£
193388 2m Wooden Pole	\$19	€17	£12.49
196408 2m Steel Pole	\$21	€18	£13.33
193387 2m Sectional Steel Pole	\$30	€27	£19.58
193389 Spare 1m Steel Section	\$19	€17	£12.49
193390 Ring Clamp Tripod	\$44	€39	£28.75

**Richter Tree Diameter Tapes**

Richter Tree Diameter Tapes are doubled sided, allowing you to measure both the circumference and diameter of a tree, log or other object. Available in a 2m or 5m model. The 2m version has a white enamelled steel blade which is 10mm wide, graduated in millimetres and labelled in centimetres. The tape casing is constructed from robust plastic which keeps the blade secure when not in use. The 5m version has a fibreglass tape which is 16mm wide. The front of the tape is graduated in centimetres and labelled every ten centimetres and the back of the tape is graduated in millimetres with labels every centimetre. The 5m tape is housed in a PVC coated steel case.

(Prices exclude VAT)

	\$	€	£
221623 Tree Diameter Tape: 2m	\$23	€20	£14.96
221589 Tree Diameter Tape: 5m	\$64	€56	£41.63

**Biodegradable Marking Tape**

This biodegradable tape can be used for mapping, tagging, roping an area off or any other marking or flagging application. The tape is made from non-woven cellulose material derived from wood pulp and is completely non-toxic to humans, animals and the environment. It degrades completely with 6–12 months when left outdoors. The tape is 20mm wide and is sold in 75m rolls. Available in five colours.

	\$	€	£
206246 Red	\$6	€5	£3.75
206250 Yellow	\$6	€5	£3.75
206224 Blue	\$6	€5	£3.75
206245 Green	\$6	€5	£3.75
206249 White	\$6	€5	£3.75

**Marking Flags**

Brightly coloured marking flags are ideal for marking the edges of survey sites, individual plants or other easy to lose objects such as scat, burrow entrances and feeding remains. Flags measure 127mm x 100mm and are manufactured from non-toxic lead free vinyl which is weatherproof and fade resistant. Each flag comes secured to a 533mm wire stem. Available in red or yellow and in packs of 10 or 100.

	\$	€	£
199413 Red: Pack of 10	\$3	€2	£1.66
199412 Red: Pack of 100	\$22	€19	£14.16
199419 Yellow: Pack of 10	\$3	€2	£1.66
199418 Yellow: Pack of 100	\$22	€19	£14.16

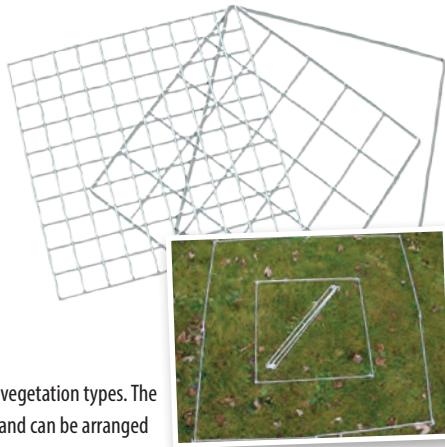
**Hardwood Metre Rule**

These hardwood metre rules are ideal for student use and for general fieldwork. They are made from high quality wood and are marked with millimetres and centimetres. Available either singly or in a pack of ten.

	\$	€	£
213348 Single	\$5	€5	£3.33
213346 Pack of 10	\$45	€40	£29.16

Quadrats

These lightweight quadrats are made from heavy gauge steel wire with either zinc plating (Q1, Q4) to make them UV-resistant and chip-proof or plastic coating (Q2, Q3) to make them easily visible and to protect the welding. All quadrats measure 0.5m x 0.5m. They are available with a range of subdivisions for different vegetation types. The versatile Q4 quadrat is collapsible and can be arranged to make larger sampling squares.



(Prices exclude VAT)

	\$	€	£
175985 Q1 Quadrat - no divisions	\$16	€14	£10.21
175986 Q2 Quadrat - 100mm division, 25 squares	\$18	€16	£11.66
175987 Q3 Quadrat - 50mm divisions, 100 squares	\$21	€18	£13.33
195854 Q4 Quadrat - no divisions, collapsible	\$16	€14	£10.21



Soil Sampling Tube

This economical galvanised steel soil sampling tube lets you easily extract a 2.5cm diameter soil core for testing or examination. A cut away side provides access to the soil sample and the saw-toothed tip makes insertion into the soil easier. It measures 30cm in length.

(Prices exclude VAT)

	\$	€	£
202281 Soil Sampling Tube	\$49	€44	£32.08

SOIL SURVEY ► PAGE 184–185



Rain Gauge

This high quality rain gauge has a functional design. The large diameter allows for precise measurement and is easily readable, even for small rainfall quantities. The removable lid stops the entry of debris and also prevents evaporation which can affect accuracy of results, especially in warmer weather. The included holder means that it can be planted directly into the ground or mounted to a post. The rain gauge should be placed in an open area, avoiding trees or other cover which may result in inaccurate readings. Dimensions: 122 x 305mm, weight: 227g.

(Prices exclude VAT)

	\$	€	£
212313 Rain Gauge	\$11	€10	£7.08



Standard Flowmeter

An easy to use flow meter with resettable LCD counter, ideal for college field trips, student projects, practical river irrigation studies and water resource management. The flow meter works by electronically sensing the revolutions of an impeller. The number of revolutions per unit of time can then be translated into stream flow velocity using a conversion chart. The impeller is mounted on a sectional rod; this consists of four 250mm sections which connect to make a 1m stick. Three riser rods are provided which allow the impeller to be elevated above the stream bed at fixed heights of 250mm, 125mm and 62.5mm. The flow meter and impeller sensor are connected by a 1m cable. Powered by longlife batteries (included) and supplied in a corrugated plastic case.



(Prices exclude VAT)

	\$	€	£
193401 Standard Flowmeter	\$179	€157	£115.83

Breaksafe Thermometer

The Breaksafe Thermometer is encapsulated in PVC which will contain any glass or filling material in the event of a breakage. This makes it ideal for use with children or when working in the field. Measures temperatures over a range of -10 to +110°C. Length 200mm.

(Prices exclude VAT)

	\$	€	£
193178 Breaksafe Thermometer	\$6	€5	£3.96

Sports Timer Stopwatch

This handheld stopwatch measures to 1/100 of a second and also features a lap counter, calendar, clock and alarm. The LCD screen measures 27 x 12mm and the stopwatch comes complete with a neck cord for convenient carrying. Batteries included. Dimensions: 75 x 59 x 16mm.

(Prices exclude VAT)



	\$	€	£
183512 Sports Timer Stopwatch	\$9	€8	£6.04

Johnson Universal pH Indicator Paper

pH test paper provides a quick and accurate method of measuring the pH of a solution. Simply dip the test paper into the solution and compare the colour with the chart. Alternatively, the colour of the paper can be compared to that of a solution of known value. Full range paper from pH 1 to pH 14. Continuous reel in plastic dispenser containing 5m length of 6mm wide paper.

(Prices exclude VAT)

	\$	€	£
193236 pH Indicator Paper	\$12	€10	£7.49



Waypoint Compass

The Waypoint Compass is simple and affordable, making it ideal for the beginner. It has a clear base plate with magnifier for easy map reading and an adjustable marching line. Sides of the compass have measurement scales and a lanyard is provided for carrying the compass around the neck or attaching to a pack.

(Prices exclude VAT)

	\$	€	£
218108 Waypoint Compass	\$6	€6	£4.16



Soil Testing Kits

These easy to use kits allow you to test the soil in your garden or woodland. Available in two types - the pH kit provides enough solution and powder to measure the pH of 15 samples. The pH/NPK kit allows you to test for pH, nitrogen (N), phosphorus (P) and potassium (K) and provides enough reagents for 40 tests (10 each for pH, N, P and K).

(Prices exclude VAT)

	\$	€	£
193394 pH Soil Testing Kit	\$9	€8	£5.83
193395 pH/NPK Soil Testing Kit	\$32	€28	£20.83



Polythene Sample Bags

These self-sealing polythene bags are useful for specimen samples such as soil and leaves. Three write-on panels allow them to be labelled. Sold in a pack of 100.

(Prices exclude VAT)

	\$	€	£
193791 Small: 102 x 140mm	\$6	€6	£4.16
193792 Medium: 125 x 190mm	\$8	€7	£5.41
193793 Large: 190 x 190mm	\$9	€8	£5.82

FSC Charts

FSC charts provide an excellent quick identification aid to species most likely to be found in the British Isles. They are illustrated with detailed colour artwork or photographs, and give additional background details to aid species identification.

Easy to use, these fold-out charts are suitable for a wide age range, packed with information, and great value. They are lightweight, small enough to take with you into the field - charts are 8 or 12 pages, concertina style, and fold to B5 size - and have a splash-proof laminated coating for protection.



Vertebrates

Guide to the UK Cetaceans & Seals (2012)	203444	\$5	€5	£3.50
Guide to the Land Mammals of Britain (2012)	200858	\$5	€5	£3.50
Guide to British Birds of Prey (2011)	195838	\$5	€5	£3.50
Guide to the 'Top 50' Garden Birds (2010)	187771	\$7	€6	£4.50
Guide to British Owls & Owl Pellets (2008)	172487	\$5	€5	£3.50
Guide to British Freshwater Fishes (2006)	166185	\$5	€5	£3.50
Guide to Wetland Birds (2003)	142010	\$7	€6	£4.50
Guide to the Reptiles & Amphibians of Britain & Ireland (2003)	113260	\$5	€5	£3.50
Guide to British Mammal Tracks & Signs (2001)	128853	\$7	€6	£4.50
Guide to British Bats (2001)	129064	\$5	€5	£3.50

Invertebrates

Guide to Insects of the British Isles (2012)	200855	\$5	€5	£3.50
Guide to the Ladybird Larvae of the British Isles (2012)	200857	\$5	€5	£3.50
Guide to Harvestmen of the British Isles (2010)	188915	\$7	€6	£4.50
Guide to Bees of Britain (2007)	171559	\$5	€5	£3.50
Guide to the Hawkmoths of the British Isles (2007)	169755	\$5	€5	£3.50
Guide to the Day-flying Moths of Britain (2006)	162005	\$6	€5	£3.99
Guide to Ladybirds of the British Isles (2006)	160027	\$5	€5	£3.50
Rocky Shore Communities (2005)	160581	\$6	€5	£3.99
Guide to Shieldbugs of the British Isles (2004)	157197	\$5	€5	£3.50
Guide to the Dragonflies & Damselflies of Britain (2004)	155014	\$7	€6	£4.50

Guide to the Caterpillars of the Butterflies of Britain & Ireland (2002)

136064	\$5	€5	£3.50
133457	\$5	€5	£3.50
143673	\$5	€5	£3.50
89346	\$5	€5	£3.50

Education

Guide to the Caterpillars of the Butterflies of Britain & Ireland (2002)	157199	\$7	€6	£4.50
Guide to House & Garden Spiders (2002)	160770	\$5	€5	£3.50
Guide to British Grasshoppers & Allied Insects (1999)	133456	\$7	€6	£4.50
Guide to Commoner Water Plants (2000)	141379	\$7	€6	£4.50
Guide to the Saltmarsh Plants of Britain (1999)	141378	\$5	€5	£3.50
Guide to Woodland Plants (1998)	87618	\$5	€5	£3.50
Key to Plants Common on Moorlands (1998)	82626	\$5	€5	£3.50
Key to Plants Common on Sand Dunes (1997)	69352	\$5	€5	£3.50
Describing Flowers (1996)	74922	\$5	€5	£3.50

Local Interest

Features of the Serpent Trail (2012)	200862	\$7	€6	£4.50
Features of the Meres & Mosses of Shropshire, Cheshire and Staffordshire (2012)	200860	\$6	€5	£3.99
Features of the South Downs Way (2011)	195840	\$6	€5	£3.99
Features of the Shropshire Hills: The Stiperstones & Long Mead (2008)	177927	\$6	€5	£3.99
Features of the Pennine Way (2006)	160623	\$6	€5	£3.99

Plants

Field Guide to Sphagnum Mosses in Bogs (2012)	198604	\$5	€5	£3.50
Guide to Common Grasses (2010)	178135	\$6	€5	£3.99
Guide to Floodplain Meadows (2010)	186112	\$5	€5	£3.50
Guide to Orchids (2008)	172486	\$7	€6	£4.50
Playing Field Plants (2005)	157202	\$5	€5	£3.50
Guide to Grassland Plants 2: Chalk and Limestone (2005)	157201	\$7	€6	£4.50
Key to Common Ferns (2005)	157195	\$5	€5	£3.50

Guide to the Caterpillars of the Butterflies of Britain & Ireland (2002)

Guide to Plant Galls in Britain (2004)

157199	\$7	€6	£4.50
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Guide to Fruits & Seed Dispersal (2002)

160770	\$5	€5	£3.50
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Guide to Grassland Plants 1 (2002)

133456	\$7	€6	£4.50
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Guide to Commoner Water Plants (2000)

141379	\$7	€6	£4.50
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Guide to the Saltmarsh Plants of Britain (1999)

141378	\$5	€5	£3.50
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Guide to Woodland Plants (1998)

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Key to Plants Common on Moorlands (1998)

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Describing Flowers (1996)

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Key to Plants Common on Common Moorlands (1998)

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Key to Common Flowers (1996)

74922	\$5	€5	£3.50
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Key to Common Water Plants (2000)

141379	\$7	€6	£4.50
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Key to Common Moorlands (1998)

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Key to Common Water Plants (2000)

141379	\$7	€6	£4.50
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Key to Common Moorlands (1998)

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Key to Common Moorlands (1998)

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Key to Common Flowers (1996)

74922	\$5	€5	£3.50

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Guide to Garden Wildlife

Richard Lewington and Ken Thompson (2008)



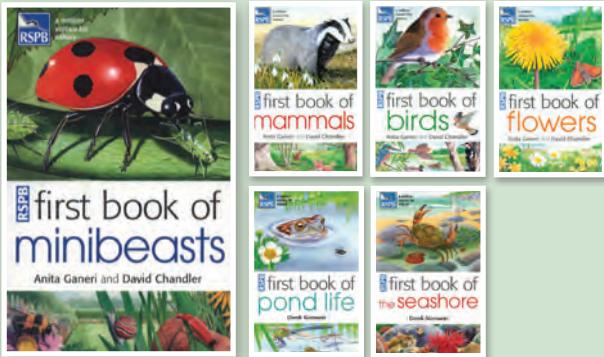
From blue tits to bumblebees and hedgehogs to hawkmoths, this guide has got it covered. It provides an extensive introduction to the ecology of the garden and the incredible array of animals that can be found there. Contains more than 900 colour artworks and photographs of over 500 species. Also includes practical information on creating a pond for wildlife, making nest boxes and feeding birds.

174024 PBK

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RSPB Spotter's Guides

Anita Ganeri *et al.* (2011)



These RSPB spotter's guides each include information on 35 common species and are suitable for the beginner naturalist. They contain beautiful full-page illustrations accompanied by key information about each species. A spotter's chart for children to fill in and links to internet-based activities are also included. Six guides are available: Seashore, Pond Life, Minibeasts, Mammals, Birds and Flowers.

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195415 First Book of Minibeasts

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195417 First Book of Mammals

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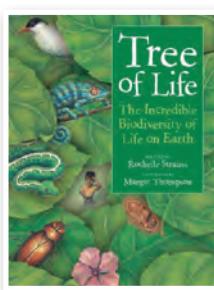
Tree of Life: The Incredible Biodiversity of Life on Earth

Rochelle Strauss (2008)

Tree of Life, a book for young adults, is a dazzling introduction to the incredible variety of life on Earth. It shows how living things are classified and interconnected, and how a problem with just one part of the tree of life can have devastating consequences for the whole tree.

173348 PBK

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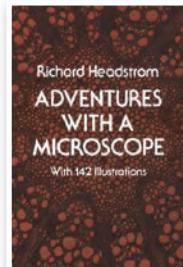
Adventures with a Microscope

Richard Headstrom (2000)

With a simple microscope and this book you can embark on 59 exciting adventures in the natural world - make discoveries about the structures of numerous microscopic animals, find out what everyday objects and food look like at the cellular level and learn how to prepare specimens and slides.

199031 PBK

\$17 €15 £10.99



The Bumper Book of Nature: Wildlife

Facts and Fun for All the Family

Stephen Moss (2009)



The Bumper Book of Nature is a treasure trove of nature activities, ideas and information to inspire and entertain you wherever you are. Lavishly designed with over 160 full-colour illustrations of British wildlife and flora, along with gorgeous black and white line drawings throughout, this beautiful and timeless book will be treasured for years to come by children and parents alike.

185209 PBK

\$20 €18 £12.99

178519 HBK

\$28 €24 £17.99

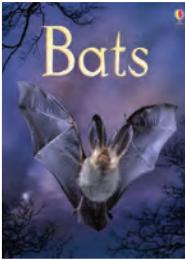
Bats

Megan Cullis *et al.* (2009)

Beginner readers can find answers to all of their bat-related questions in this colourful information book. It is illustrated with stunning photographs which are accompanied with short, informative text. Also includes carefully selected internet links to exciting websites about bats.

202925 HBK

\$7 €6 £4.49



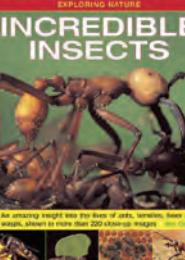
Incredible Insects

Jen Green (2014)

This book provides an in-depth look at the many fascinating aspects of social insects, from how they communicate with each other to the ways in which they protect their nests. Includes stunning images by top photographers, plus superb illustrations and detailed cross-sections.

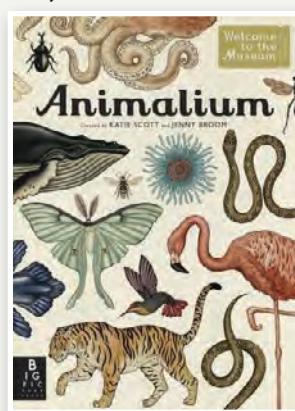
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\$12 €11 £7.99



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The first title in the Welcome to the Museum series presents the animal kingdom in glorious detail, with illustrations from Katie Scott. Each full colour specimen is accompanied by lively, informative text. A collector's edition is also available which comes in a slipcase and drawer and contains ten prints ready for framing.

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1. You must confirm that you or your organisation (e.g. consultancy, registered NGO, academic institution) has appropriate public liability insurance.
2. Rentals are made at the sole discretion of NHBS and are dependent on the availability of suitable rental units.

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3. Rentals include sufficient batteries to power the rental unit for the duration of the initial rental period under normal working conditions. If the weather is very cold, activity at your site is very high, or the settings you have chosen require more power than the standard settings, then the batteries may need to be changed more frequently (please call our Equipment Specialists on 01803 865913 if you have any questions). Please dispose of your batteries responsibly at the end of the rental period or return them to us for recycling.
4. Rentals include sufficient memory cards to cover normal usage for the duration of your rental period (e.g. for SM2BAT+ rentals of two or more weeks include two 32GB cards, we recommend that you switch cards each week when you refresh the batteries). Please remove your data from the cards before returning them to NHBS; we reformat memory cards once they are returned to us.

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5. Full payment for the rental is required in advance. If you have a credit account with NHBS this can also be used to pay for rentals.
6. Before dispatch of the rental units a credit/debit card pre-authorisation of 85% of the retail value of the rental units will be taken as a deposit. The full deposit will be refunded provided the rental units are returned in good condition within one working day of the end of the agreed rental period (see Rental periods section).

RENTAL PERIODS

7. Four standard rental periods are available, one week (7 days), two weeks (14 days), three weeks (21 days), and four weeks (28 days). We will post your rental unit for a 10:00 delivery, so the day that you receive the rental unit is day one of the rental. For example, if you have ordered a one week rental and receive your rental unit at 10:00 on a Thursday you then have seven full days/nights to use it, with the one week rental ending the following Thursday morning. You then have a maximum of one working day to return the rental unit to NHBS using a 24-hour traceable shipping service (we strongly recommend that you insure units during shipping - failure to return units to NHBS will result in additional charges against the deposit).
8. Rental periods can be extended by contacting NHBS and arranging payment for the extension. Extensions are not guaranteed and must be agreed in advance.

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9. On receipt of a signed Equipment Rental Agreement, payment and deposit on a working day before 15:00 NHBS will dispatch your rental unit(s) for delivery at or before 10:00 on the next working day. Orders completed after 15:00 will be dispatched from NHBS on the following working day (UK only, please contact us for delivery times to other countries).
10. Delivery charges will be calculated when you place your order.
11. Please retain the packaging provided by NHBS - when returning the rental unit(s) reuse the packaging provided and post the unit using an express, traceable, insured service.
12. You must confirm that someone will be available to sign for the unit at your delivery address on the delivery date. Rental periods will not be automatically extended if you are not able to receive your delivery.

CHARGES AGAINST YOUR DEPOSIT FOR DAMAGE OR LOSS

13. Ordinary wear and tear is expected (e.g. minor external scratches on the units); however, damage to vital parts of the equipment that affect performance (e.g. to the microphone) of the unit will be charged against the deposit. These will be assessed when the equipment is returned to NHBS and tested. All repairs will be charged at our cost + 10%.
14. Complete loss or destruction of the rental unit will result in the retention of 100% of your deposit.

LIABILITY

15. NHBS assumes no liability for loss of data, survey time, or any other liability of any kind resulting from the use of, delay in acquiring, receiving or returning or failure of the rental equipment. The customer assumes all liability for the use of the rental equipment.

12V Batteries.....138

A

Actinic Moth Traps.....136-137

Active Full Spectrum Bat Detectors. 22-23

Agricultural Test Kit.....185

Albion Traps.....108

Altimeter.....197

Amphibian Survey.....112-113

Anabat.....20-21, 22

Anabat Express.....21

Anabat Walkabout.....22

Anemometer.....197

Animal Handling Gloves. 31, 107, 114

Animal Traps.....106-108

Antennae.....117

Aquapac.....158

Aquascope.....159, 209

Aquatic Ecology Books.....167

Aquatic Survey Equipment. 154-165

Area Lighting.....191

Audio Recorders.....18, 98-99

Augers.....184-185

Austbat Harp Traps.....34

Avinet.....35, 74, 76

B

Badger Bait Marking Pellets.....108

Badger Gates.....108

Badger Traps.....108

Bags.....204-205

Bags, Polythene.....129, 219

Bait Traps.....141

Bamboo Canes.....112

Barn Owl Nest Boxes.....55

Barrel Pooter.....147

Bat Access Tiles.....45

Bat Books.....36-37

Bat Boxes.....38 -

Bat Bricks.....44-45

Bat Detector Rental.....222

Bat Detectors.....14-29, 213

Bat Survey.....14-37

Bat Nets.....34-35

BatBox Bat Detectors.....17-19

Batbox Duet Rental.....222

Batcorder.....28-29

Batcorder Software.....29

Bathyscope.....159, 209

Batlogger M.....23

BatLure.....34

Bats.....14-37

BatScan Software.....18, 25

BatSound Software.....25

Batteries.....91, 189

Bean Bags.....84

Beating Sheets.....146

Beating Trays.....146

Bed Bug Undersheet.....202

Bee Boxes.....58-59, 215

Bees, Ants & Wasps, Books.....151

Beetles, Books.....151

Behavioural Ecology Books.....11

Berlese Funnels.....141

Binoculars.....66-71, 213

Binocular Accessories.....67

Bioacoustic Books.....105

Biogents Mosquito Traps.....142-143

Biogeography & Invasive Species Books.....11

Bird Baths.....61, 214

Bird Box Cameras.....96-97, 214

Bird Boxes.....38-55

Bird Feeders.....60-61, 214

Bird Field Guides UK.....80

Bird Field Guides International.....81

Bird Holding Bags.....76

Bird Ringing Equipment.....74-77

Bird Ringing Pliers.....76

Bird Surveying, Monitoring & Ringing Books.....81

Bird Table.....61, 218

Birder's Journal.....73

BirdVoice.....105

Bite Relief.....202

Borer.....172

Botanical Press.....170

Botanical Survey Equipment.....170-172

Botany Books.....174-177

Bottle Traps.....112

Bottom Dragging Nets.....155

Brushes.....148

Buckets.....161

Bug Hunting Kits.....210

Bug Tongs.....147

Bug Viewer.....211

BugDorm.....139-141, 143-145

Build-in Nest Boxes.....44-47

Bushnell Trail Cameras.....88-89, 212

Butterfly Bags.....147

Butterfly Books.....135

Butterfly Garden School Kit.....211

Butterfly Nets.....31, 132-133, 211

Butterfly Traps.....141

Collecting Bottles.....157

Collecting Pots.....146

Collecting Tins.....146

Compasses.....181, 219

Compound Microscopes.....119

Composter, Educational.....215

Conservation & Biodiversity Books.....9

Conservation Evidence Series Books.....8

Continental Pins.....148

Counters.....31, 73

Coverslips.....121

Crab Nets.....155

Crayfish Traps.....163

D

D500X Bat Detector.....29

Datalogger Accessories.....193-194

Dataloggers.....32, 165, 192-195

Depth Sounder.....159

Dewsbury Newt Trap.....112

Diameter Tapes.....172

Digital Calipers.....31, 77

Digital Endoscopes.....33

Digital Microscopes.....120, 122-125

Digital Thermometer.....196

Dinolite.....122-125

Dissection Kit.....128

Dissecting Pins.....121

Dissolved Oxygen Meters.....164

Dormouse Nest Boxes.....56

Dormouse Nest Tubes.....107

Dragonflies & Damselflies, Books.....152

Dredge Nets.....156

Drift Nets.....156

Droll Yankees Feeders.....60

Drop Nets.....155, 209

Dry Bags.....158, 205

E

Earphones.....99

EasyLog Dataloggers.....32

Echo Meter.....23-24

Echo Meter Touch.....24



Ecology Textbooks	10	Freshwater Animals, Books	167	Heavy Duty Sweep Nets	134	King Fisher Tunnels	43
ecoObs	28–29	Freshwater Plants, Books	167	Hedgehog Nest Boxes	56, 219	Kite Optics	126
Ecotone Mist Nets	35, 75–76	Frog Houses	43, 219	Helmet	32	Kits, Education	206–219
Educational Composter	217	FSC Charts	220	Herpetology Books	115		
Educational Equipment	206–219	Full Spectrum Bat Detectors	22–23, 26–29	Herpetology Net	112		
Eijkelkamp Soil Augers	184–185	Fungi, Books	177	Heterodyne Bat Detectors	16–17, 213		
Electro Fishing	162	Funnel Crayfish Trap	163	HexArmor Gloves	114		
Electronic Scales	77, 130–131			Hides	84		
Elekon Bat Detectors	17, 23	G		High Flier Support System	35, 77		
EM3+	23	Garden Wildlife Pond	215	Hilkinson Ruper Hand Lenses	127		
EM3+ Rental	222	Gardening Books	57	Hip Packs	204		
EMTouch	24	Garmin GPS	178–179	Holdalls	204		
Emergence Traps	140, 213	Generator	138	Holding Bags	76, 107, 114		
Emergency Lights	201	Geology Books	183	House Martin Nests	41–42		
Endoscope Rental	222	Gloves, Animal Handling	31, 107, 114	Hydrophones	27, 102–103		
Endoscopes	33	Gloves	160, 171	Hygrometer	196		
Entomology Books	150–153	Glow Markers	30, 189	Hyperfire, Reconyx	87		
Entomology Equipment	132–149	Glue, Insect Mounting	148				
Entomology Storage Boxes	148	GoPro Action Cameras	94–95	I			
Equipment Rental	222–223	GPS	178–180	Illuminators, Infrared	63		
Ethyl Acetate	147	GPS Accessories	180	Indicator Paper, pH	113, 164, 219		
eTrex GPS	179	GPS Receiver	20, 27	Infrared Floodlighting	30		
Evolutionary Ecology Books	10	Grapnels	157	Insect Books	135, 150–153		
Explorer Digital Endoscope	33	Grasses, Sedges & Ferns, Books	176	Insect Houses	58–59, 215		
		Grasshoppers & Crickets, Books	152	Insect Lore	211		
F		Grow Bells	217	Insect Marking	147		
Feeders, Bird	60–61, 214	Guide Thermal Imaging Monoculars	64–65	Insect Preparation	147		
Felco	171			Insect Rearing Cages	143–145		
Field Microscopes	216	H		Insect Rearing Sleeves & Bags	145		
Filters, Cluson	186	Habitat Boxes	38–59	Insect Repellent	202		
First Aid Kits	31, 113, 200, 213	Habitat Management Books	13, 57	Inspection Mirror	32, 73		
Fisco Tape Measures	182, 218	Habitat Creation & Restoration	13	Integrated Nest Boxes	44–47		
Fish Sampling	162	Haglöf	172	Invertebrate Colonisation Sampler	157		
Flags, Marking	107, 170, 172, 218	Hand Lenses	126–127, 207, 211				
Flight Interception Net	139	Hand Magnifiers	127, 207	J			
Flip Top Containers	129	Hand Nets	112, 154–155	Journal	73		
Flood Lighting	191	Harp Traps	34				
Float Tube Flippers	160	Hawke Optics Binoculars & Scopes	67, 72				
Float Tube Kit	160	Head Torches	31, 188–189, 212	K			
Flow Meters	158, 219	Headphones	99	Kaleidoscope Analysis Software	25		
Flowers, Books	174–175	Heated Bat Roosts	38	Keg	161		
Forceps	128, 148, 209	Heath Moth Traps	138	Kestrel Nest Boxes	54		
Fox Traps	108						
Frequency Division Bat Detectors	18						



Everything for wildlife, science & environment

- Marking Flags 107, 170, 172, 218
- Marking Paint & Pens 147
- Marking Tape 107, 170, 172, 182, 218
- Measuring Tapes 172, 182, 218
- Measuring Wheel 182, 218
- Memory Cards 91
- Mercury Vapour Moth Traps 136–138
- Micro Pins 148
- Microphones 100–101
- Microscope Slides 121
- Microscopes 118–124
- Microscopy Accessories 121
- Midge Trap 142
- Mink Raft 108
- Mink Traps 108
- Minox Binoculars 66
- Minox Trail Cameras 86
- Mirror, Telescopic Inspection 32, 73
- Mist Net Bags 75
- Mist Net Poles 35, 76–77
- Mist Net Repair Kit 75
- Mist Nets, Birds 74–75
- Mist Nets, Bats 35
- Mole Trap 107
- Monoculars 72
- Monoculars, Night Vision 62–63
- Monoculars, Thermal Imaging 64–65
- Monterra, GPS 179
- Mosquito Attractant 142
- Mosquito Nets 202
- Mosquito Repellent 202
- Mosquito Traps 142
- Mosquito UV Light Set 143
- Mosses & Liverworts, Books 176
- Moth Books 135
- Moth Trap Bulbs 138
- Moth Trap Electrics 138
- Moth Traps 136–138
- Motical 120
- Motic Microscope 119, 214
- Mounting Boards 148
- Mounting Glue 148
- Mudders 159
- Multitools 203

N

- Nails 54, 113
- Naturalists Handbook Series 153
- NatureView, Bushnell 88, 212
- Navigation Books 183
- Needles 128
- Neoprene Repair Kit 160
- Nest Box Cameras 96–97, 214
- Nest Boxes 38–59
- Nesting Pockets 53
- Newt Barrier / Fencing 113
- Newt Traps 112
- Nigh Flight Microphone 104
- Night Vision 30, 62–63
- Nikon Binoculars 69
- Notebooks 31, 73

O

- Opticron Binoculars & Scopes 68, 72
- Opticron Hand Lenses 126
- Optics 62–72
- Oregon, GPS 179
- Ornithology Books 78–81
- Ortileb Map Cases 181
- Outdoor Clothing 198–199
- Owen Emergence Trap 140
- Owl Nest Boxes 54–55

P

- Paintbrush 148
- Paramo Clothing 198–199
- Passive Acoustic Recorders 104
- Passive Active Bat Detectors 26–29
- Peat Probe 184
- Peli Cases 158, 205
- Pellets, Bait Marking 108
- Pencils 168, 170
- Pens 148
- Pergamene Setting Strip 149
- Pesola 31, 77, 107, 130–131
- Petri Dishes 129
- Pettersson Bat Detectors 17, 19, 29
- Pettersson M500 Ultrasound

Microphone 24

- Petzl 31–32
- pH Indicator Paper 113, 164, 219
- pH Meters 164
- Phase 1 Habitat Survey Kit 170
- Photography Accessories 84
- Photography Books 85
- Photometers 197
- Pinning Block 148
- Pins 148–149
- Pipettes 128, 207
- Pitfall Traps 113, 147
- Plankton Nets 156
- Plastazote Foam 148
- Plastazote Setting Boards 149
- Plastic Bottles 112
- Point Frame 170
- Polythene Bags 107
- Pond 215
- Pond Dipping Kits 206
- Pond Nets 112, 154–155, 206, 208
- Pooters 147, 211
- Population Ecology Books 10
- Pop-up Butterfly Bait Traps 141
- Pot Pooter 147
- Preamplifiers 101
- Professional Hand Nets 154
- Pruning Saw 171
- Pulsar Quantum S Series 30, 65

Q

- Quadrats 170, 219

R

- Rabbit Trap 108
- Radio Tracking 116–117
- Rain Gauge 197, 219
- Rake Grapnel 157
- Rangefinder 172
- Ranger Moth Trap 137
- Ranging Line 182
- Ranging Poles 182, 218
- Rat Traps 108
- Razor Blades 121
- Rearing Sleeves & Bags 145
- Receiver, Telemetry 116
- Rechargeable Batteries 189
- Reconyx Trail Cameras 87
- Refractometer 165
- Refuge Crayfish Trap 163
- Rental Equipment 222–223
- Repair Kits, Waders 160
- Reptile Survey 114
- Reptile Tiles 114
- Ricoh WG-4 Camera 180
- Rigid SeeSnake Endoscope 33
- Ringing Pliers 76
- Rite in the Rain 31, 73, 168–169
- Robin Nest Box 40, 46, 51–54
- Robinson Moth Traps 136
- Rock Pooling Kits 208
- Rocket Box 50
- Røde Microphones 100
- Roland Recorders 18, 99
- Royal Entomology Society Handbooks 153
- RSPB Spotter's Guides 221
- Rubber Boot Repair Kit 160
- Rucksacks 204–205
- Rulers 218

S

- Safari Moth Trap 137
- Safety Whistles 201, 213
- Salinity Meters 165
- Sample Bags 129, 219
- Sample Containers 129, 217
- Sand Martin Tunnels 43
- Scales 130–131
- Scalpel, Handles & Blades 128
- Schwegler Nest Boxes 38–55
- Scissors 128
- SDHC Cards 91
- Seaweed Books 166
- Secateurs 171
- Secchi Disk 159
- Sectional Hand Net 154
- Seed Feeders 60–214
- Sennheiser Headphones 99



Sennheiser Microphones	101	SpyPont Trail Cameras	92–93	Traps, Crayfish	163	Water Testing Kits	165
Sentinel Mosquito Trap	142	Squirrel Nest Box	56	Traps, Insect	136–142	Water Vole Traps	106
Setting Boards	149	Squirrel Traps	108	Traps, Mammals	106–108	Waterproof Cases	102, 158, 205
Setting Needles	149	Stakes, Wooden	113	Traps, Newts	112–113	Waterproof Clothing	199
Setting Strip	149	Statistics & Data Analysis Books	12	Travel Essentials	202–203	Waterproof Stationary	168–169
Sheets, Beating	146	Stereo Microscopes	118	Trays	139, 155, 206–209	Weather Meters	197
Sherman Traps	106	SteriPEN Water Purifier	201	Tree Bark Net	146	Weatherproof Pens	168
Sieves	157	Stopwatch	219	Tree Books	173	WeatherWriters	168
Silva Compasses	181	Storage Boxes, Entomological	148	Tree Diameter Tape	172, 218	Weighing Scales	31, 77, 107, 130–131
Silva Dry Bags	158, 205	Stream Meters	158, 219	Trekker Microscope	119, 216	Whistles	201, 213
Skanemjarden Crayfish Trap	163	Study Design Books	12	TriggerSmart	83	White Trays	139, 155, 206–209
Skinner Moth Traps	137	Surber Sampler	156	Trip Trap	107	WIFI Datalogger	195
Slam Traps	139	Surveyor's Ladder	33	Triplet Loupes	126	Wildlife Acoustics	20, 23–24, 26–27, 103–104
Sleeping Bag Liner	203	Survival Bag	213	Tripod	72	Wildlife Photography	82–97
Slides, Microscope	121	Swallow Nests	40	Trophy Cam, Bushnell	89, 212	Window Feeder	60
SM2+	104	Swarovski Binoculars	71	Two-Way Radios	32, 73	Wind Turbine Kit, Batcorder	28
SM2BAT+	27	Sweep Nets	134	Tyvek Paper	168	Wing Rules	77
SM2BAT+ Rental	222	Swift Boxes	41, 46–47			Wire Cutters	171
SM3	104					Wireless Nest Box Camera	96
SM3BAT	26					Wooden Nest Boxes	39, 41, 43, 48, 50, 53–56, 58–59
SM3M Submersible Recorder	103					Wooden Setting Boards	149
Small Mammal Traps	106–107	T				Woodland Management Books	173
Smartlite Torches	113, 186–187	Tally Counters	31, 73			WoodStone Nest Boxes	38–41, 43–44, 46–47, 50–51, 58
SMZC	20	Tanita Scales	130			Wren Nest Boxes	52, 54
Snake Catcher & Hook	114	Tape Measures	172, 182, 218				
Snowbee	160–161	Techniques in Ecology & Conservation Books	9	U		X	
Soil Augers	184–185	Telemetry	116–117	Urban Ecology Books	11		
Soil Conductivity & Temperature	185	Telescopic Mist Net Pole	76	Ultrasound Calibrator	27		
Soil Sampler	184	Temperature Logger	192, 194–195	Ultrasound Microphones	24, 27		
Soil Sampling Tube	184, 219	Tents, Insects	144–145	Ultrasound Speaker	34		
Soil Testing Kits	185, 219	Test Tubes	129	Underwater Camera	215		
Song Meter	20, 26–27	Thermal Imaging	30, 64–65	Underwater Torches	159		
SongScope Bioacoustics Software	103	Thermo-hygrometers	196	Universal Plug Adaptor	203		
Sound Analysis Software	18, 25, 103	Thermometer	113, 196, 219	USB Capture Device	215		
Sound Recording	98–104	Thigh Wader	161				
SoundID Sound Recognition Software	103	Tick Remover	202	V			
Sparrow Boxes	39, 46	Tiles, Reptiles	114	Vacuum Bags	204		
Spatula	128	Tiles, Roof	45	Vernier Dial Calipers	31, 77, 107	Y	
Specimen Sorting Trays	155	Time Expansion Bat Detectors	19	Vivara Pro Nest Boxes	39, 41, 43, 214	Yagi	116–117
Specimen Trays	139, 155, 206–209	Tinytag Data Loggers	192–193			Yukon Night Vision	30, 62–63, 212
Specimen Tubes	129	Titley Scientific	21–22				
Spiders, Books	153	Toad Houses	43, 215	W			
Spiral Bound Notebooks	31, 168–169	Torches	32, 113, 186–191	Wader Grips	160	Z	
Spotting Scopes	72	Towels	203, 209	Waders	161	Zero-Crossing Bat Detectors	20–21
Spring Balances	31, 77, 107, 130–131	Trail Cameras	86–93	Wash Bags	204	Zeiss Binoculars	70
		TrailMaster82		Wash Bottle	121	Zoom Recorders	98
		Trapping & Telemetry	106–117	Watch Glass	149		
				Water Quality Meters	164–165		
				Water Sampling	154–159		
				Water Testing	164–165		

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