COMPARATIVE BIOCHEMISTRY AND PHYSIOLOGY - PART D: GENOMICS AND PROTEOMICS

An International Journal

AUTHOR INFORMATION PACK

TABLE OF CONTENTS

- **Description** **p.1**
- **Impact Factor** **p.1**
- **Abstracting and Indexing** **p.2**
- **Editorial Board** **p.2**
- **Guide for Authors** **p.7**

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DESCRIPTION

Comparative Biochemistry & Physiology (CBP) publishes papers in comparative, environmental and evolutionary physiology.

Part D: Genomics and Proteomics, focuses on omics" approaches to physiology, including comparative and functional genomics, metagenomics, transcriptomics, proteomics, metabolomics, and lipidomics. Most studies employ omics and/or system biology to test specific hypotheses about molecular and biochemical mechanisms underlying physiological responses to the environment. We encourage papers that address fundamental questions in comparative physiology and biochemistry rather than studies with a focus that is purely technical, methodological or descriptive in nature.All four CBP journals, receive editorial direction from all the major societies in the field European Society for Comparative Physiology and Biochemistry, Chinese Association for Physiological Sciences, Japanese Society for Comparative Physiology and Biochemistry, Canadian Society of Zoologists (CBP Section), Society for Experimental Biology, (formerly the American Society for Zoologists) Society for Integrative and Comparative Biology,Australian and New Zealand Society for Comparative Physiology and Biochemistry, Russian Physiological Society.

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Oxidative stress

GUIDE FOR AUTHORS

INTRODUCTION

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The journal publishes original articles emphasizing comparative and environmental aspects of the physiology, biochemistry, molecular biology, pharmacology, toxicology and endocrinology of animals. Adaptation and evolution as organizing principles are encouraged. Studies on other organisms will be considered if approached in a comparative context.

Part A. Molecular and Integrative Physiology covers molecular, cellular, integrative, and ecological physiology. Topics include bioenergetics, circulation, development, excretion, ion regulation, endocrinology, neurobiology, nutrition, respiration, and thermal biology. Studies on regulatory mechanisms at any level or organization such as signal transduction and cellular interactions and control of behaviour are encouraged.

Part B. Biochemistry and Molecular Biology covers biochemical and molecular biological aspects of metabolism, enzymology, regulation, nutrition, signal transduction, promoters, gene structure and regulation, metabolite and cell constituents, macromolecular structures, adaptational mechanisms and evolutionary principles.

Part C. Toxicology and Pharmacology covers chemical and drug action at different levels of organization, biotransformation of xenobiotics, mechanisms of toxicity, including reactive oxygen species and carcinogenesis, endocrine disruptors, natural products chemistry, and signal transduction. A molecular approach to these fields is encouraged. Measured rather than nominal exposure concentrations of toxicants must be reported whenever possible. For water-borne exposures of aquatic organisms, reporting of detailed chemistry data for the exposure waters is encouraged. When reporting data obtained from bioassays (e.g., LC50 tests), raw data (i.e., the value of the measured biological response variable(s) for each treatment and each observation time) should be submitted as online supplementary material.

Part D. Genomics and Proteomics covers the broader comprehensive approaches to comparative biochemistry and physiology that can be generally termed as "-omics", e.g., genomics, functional genomics (transcriptomics), proteomics, metabolomics, and underlying bioinformatics. Papers dealing with fundamental aspects and hypotheses in comparative physiology and biochemistry are encouraged rather than studies whose main focus is purely technical of methodological.

Naturally, a certain degree of overlap exists between the different sections, and the final decision as to where a particular manuscript will be published after passing the rigorous review process lies with the editorial office.

Types of articles published in CBP journals

A **Research Paper** is a paper that focuses on an experimental question of broad interest to the comparative physiology community.

•Word count (excluding references): typically 4000 -8000 words, with at least 2 figures / tables.
•Papers are normally subdivided into sections titled: Abstract, Introduction, Materials and Methods, Results, Discussion, and References. Results and discussion may be combined if appropriate.

A **Short Communication** is like a Regular Article in scope, but is of a nature that a complete story can be presented in a brief communication. As Short Communications are expected to have higher than average impact on the field rather than report on incremental research, they will receive prioritized and rapid publication.

•Word count: less than 3000 words, with no more than 2 figures / tables.
•Each paper will begin with "Short Communication:" followed by the title.
•The paper includes and Abstract, but is otherwise not subdivided into sections.

A **Methods** article is focused on applying a novel technology or approach that would inform the CBP readership about a novel technology applied to a comparative physiology question.

•Word count: typically less than 3000 words, with no more than 2 figures / tables.
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