# Aims & scope

*Invertebrate Biology* invites papers describing original, significant research focused on understanding any aspect of the biology of invertebrate animals (metazoans), including morphology and ultrastructure; genetics, phylogenetics, and evolution; physiology and ecology; neurobiology and behavior; biomechanics; reproduction and development; and cell and molecular biology. Although the journal has a significant history of publishing articles on protozoans and other organisms (as Transactions of the American Microscopical Society), since 1995 the title and the taxonomic focus of the journal has shifted to invertebrate metazoan animals.

The journal focuses on studies of the biology of invertebrates in nature, or studies that use laboratory methods to understand invertebrate performance, diversity, and adaptations. Studies of invertebrates used in medicine, agriculture, or aquaculture, including studies of species that are mainly associated with human industrial activity, should have a significant component that is related to the biology of the study organisms in nature or their adaptations for life. Authors of studies that have a purely applied context (e.g., behavior or physiology of agricultural organisms in a purely agricultural setting) are encouraged to submit those manuscripts to a journal focused on applied research.

Because the journal has a broad taxonomic and geographical focus, manuscripts that are based on studies of local phenomena (e.g., documentation of a geographical range shift or the first occurrence of a species or taxonomic group in a new locality) are often returned to the authors without review unless the study also documents a new feature of the organisms or their interactions with other organisms and the environment. Authors of such studies are encouraged to submit such studies instead to other journals focused on specific taxonomic groups or regional faunas.

# Submission

Manuscripts must be submitted by one of the authors of the manuscript through the [manuscript tracking system](file:///C:\Users\mtemkin\AppData\Local\Microsoft\Windows\INetCache\Content.Outlook\MX3QVJQ1\link%20to%20the%20Kriyadocs%20submission%20site). Submissions by anyone other than one of the authors will not be accepted. The submitting author takes responsibility for the manuscript during submission and peer review.

Manuscripts must be submitted on the understanding that they have not been published elsewhere and are only being considered by this journal. The submitting author is responsible for ensuring that the submission and publication has been approved by all coauthors, and that all necessary institutional approvals and permits, if required, are included. An acknowledgment from the editorial office will officially establish the date of receipt. Further correspondence and proofs will be sent to the submitting author before publication, unless otherwise indicated. It is a condition of submission that the authors permit editing of the manuscript for style, clarity, and readability; authors will have an opportunity to review and approve those edits before publication. All inquiries concerning the publication of accepted manuscripts should be addressed to the [editor-in-chief](mailto:mwhart@sfu.ca).

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*Invertebrate Biology* supports the deposition of manuscripts in preprint servers (e.g., bioRxiv), and does not consider this to compromise the novelty of the results. Manuscripts based on content previously made public only on a preprint server, institutional repository, or in a thesis or dissertation will be considered. The preprint should be cited.

# Authorship

All individuals who make significant contributions to work reported in a manuscript should be authors. All authors should review and ensure the accuracy and validity of results prior to submission.

Each author should have contributed to the design and completion of the study and to the scholarly content of the manuscript. Those contributions should be sufficient for each author to take public responsibility for appropriate portions of the content, and to be accountable for ensuring that questions related to the accuracy or integrity of any part of the work can be appropriately investigated and resolved.

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Author order should be agreed on by all authors as should any changes in authors and order that occur while the manuscript is under review or revision. Requests for changes in authorship must be submitted to the editor-in-chief. Changes to authorship are not permitted after acceptance of a manuscript.

We encourage authors to support the society that publishes *Invertebrate Biology*, and receive the journal in which their manuscript appears, by becoming a member of the American Microscopical Society.

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All submitted manuscripts are subject to assessment and peer review to ensure editorial appropriateness and technical correctness. For a manuscript to be accepted for publication, the editor-in-chief will first consider whether the manuscript meets minimum editorial standards and fits within the scope of the journal. If a manuscript is within that scope, then the editor-in-chief will assign the manuscript to one of the editors for peer review, which will ideally include assessment of the manuscript by at least two external peer reviewers (whose identities will remain anonymous to the authors).

The criteria for acceptance are the appropriate fit to the journal, the quality and originality of the research, and its significance to journal readership. The decision to accept a manuscript is at the discretion of each editor.

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Submissions to *Invertebrate Biology* fall into four main types: Research Article, Review Article, Book Review, and *In* *Memoriam*~~.~~ Authors are encouraged to browse recent issues of the journal for examples of articles in these categories.

Research Articles must be based on complete studies that represent a substantive advance in knowledge of the organisms.

New species descriptions and taxonomic revisions may form a secondary component of a research article in which the primary focus of the study is some aspect of the biology (rather than the classification) of the organisms. Authors of alpha taxonomy studies are encouraged to submit such studies instead to one of the appropriate journals focused on species descriptions and classification.

Review Articles and Book Reviews are welcomed. Review articles may be of any length and scope. Short review articles focused on recent discoveries or new directions by early-career researchers are especially welcome. Authors are encouraged to consult the [editor-in-chief](mailto:mwhart@sfu.ca) before submitting a review article or book review.

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The following information should be included:

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Full author names

Institutional addresses or affiliations

Email address for the corresponding author

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Include five additional keywords not in the title.

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This section should be succinct, with no subheadings.

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The headings below may follow the end of the DISCUSSION as needed or appropriate:

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**ACKNOWLEDGMENTS**

All acknowledgments (if any) should be included at the end of the manuscript before the references. Anyone who made a contribution to the research or manuscript, but who is not a listed author, should be acknowledged (with their permission).

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For animal studies, a statement indicating that the protocol and procedures employed were ethically reviewed and approved, as well as the name of the body giving approval, must be included in the Methods section of the manuscript. Authors are encouraged to adhere to animal research reporting standards, for example the ARRIVE guidelines for reporting study design and statistical analysis; experimental procedures; experimental animals and housing and husbandry. Authors should also state whether experiments were performed in accordance with relevant institutional and national guidelines for the care and use of laboratory animals. US authors should cite compliance with the US National Research Council's Guide for the Care and Use of Laboratory Animals, the US Public Health Service's Policy on Humane Care and Use of Laboratory Animals, and Guide for the Care and Use of Laboratory Animals. UK authors should comply with UK legislation under the Animals (Scientific Procedures) Act 1986 Amendment Regulations (SI 2012/3039). European authors should comply with Directive 2010/63/EU.

**SUPPLEMENTARY MATERIALS**

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The references should be prepared according to the Publication Manual of the American Psychological Association (APA) (7th edition, 2020). This means in-text citations should follow the author-date style in which the author's last name and the year of publication for the source should appear in the text, for example, (Jones, 1998). Articles with one or two authors include all names in every in-text citation; articles with three or more authors abbreviate to the first author name plus et al. Include the year in the indirect repeated citations, for example, “Several studies (Johnson 2007a, 2007b; Smith & John, 2005a, 2005b)…”. List parenthetical citations in alphabetical (not chronological) order.

If two references with the same year shorten to the same form, cite the surnames of the first authors and of as many of the subsequent authors as necessary to distinguish the two references, followed by a comma and et al., for example, Bradley, Ramirez, and Soo (1994) and Bradley, Soo, et al. (1994).

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Book:

Byrne, M., & O’Hara, T. D. (2017). *Australian echinoderms: Biology ecology and evolution*. CSIRO Press. https://doi.org/10.1071/9781486307630

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**Text**

Please write in complete sentences (including diagnoses in taxonomic descriptions). Each paragraph should consist of two or more sentences. Use present tense to describe the current state of knowledge in the area of study and use past tense to describe what the authors discovered in the new study.

Write out dates in full to avoid confusion with different all-numeral date styles. For example, 11/10/2018 should be 10 November 2018.

Please use SI and metric units throughout: h, hour; min, minute; s, second; ms, millisecond (but don’t abbreviate longer time units such as day, week, month, or year); L, liter; mL, milliliter; µL, microliter; °C, degrees Celsius (please use the degree symbol, not a superscript “o”). For ratio units use a slash (e.g., “mg/kg”), but for compound ratios use superscripts (e.g., “mg kg-1 h-1”). Use the unit of measurement as the abbreviation, not the name of the variable (e.g., “h” or “min” for time, not “t”). If possible, avoid creating novel abbreviations for units (e.g., write out “days post-fertilization” instead of abbreviating as “DPF”).

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Numbers under 10 are spelled out, except for measurements with a unit (8 mmol/L); age (6 weeks old); or lists with other numbers (11 arthropods, 9 annelids, 4 molluscs).

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For each species studied, the complete scientific name with taxonomic authority and date should be given; for example, *Ostrea* *edulis* Linnaeus, 1758, for a species and its original taxonomic description; or *Pisaster* *brevispinus* (Stimpson, 1857), for a species with a revised taxonomic description or genus assignment. Use small caps for the taxonomic authority and use a comma to separate the taxonomic authority from the year. For marine invertebrates, authors are encouraged to use the [World Register of Marine Species](https://www.marinespecies.org/index.php) as an authoritative source for up-to-date species names, taxonomic authorities, and classification.

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Tables should be self-contained and should complement, not duplicate, information contained in the text or in the figures. Please don’t present the same information in both a table and a figure (use just the figure). The table caption should be concise but comprehensive – the table, caption, and footnotes must be understandable without reference to the main text.

Tables must be submitted as text in-line with the main text content (not embedded in the main text as an image or a PDF). Please use the Microsoft Word table formatting tools. Please do not make tables out of tab-delimited text. Vertical rules should not be used. Alternatively, tables can be uploaded as separate .xlsx or PDF files.

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