

***Oecologia* Author Instructions – Manuscript Guidelines**

Instructions for authors at [Springer.com](https://www.springer.com) do not include all formatting expectations for *Oecologia* submissions. *Oecologia*'s Editors-in-Chief have combined all of Springer's instructions along with their additional detailed expectations into two user-friendly files; "*Manuscript Guidelines*" and "*Artwork Instructions*". Please prepare submissions to *Oecologia* according to the instructions in these two files. Submissions that do not follow these guidelines may be returned to authors or their review may be delayed.

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Aims and scope

Oecologia publishes innovative ecological research of general interest to a broad international audience. We publish several types of manuscripts in many areas of ecology, including:

Population ecology

Plant-microbe-animal interactions

Ecosystem ecology

Community ecology

Global change ecology

Conservation ecology

Behavioral ecology

Physiological Ecology

In general, studies that are purely descriptive, mathematical, documentary, and/or natural history will not be considered.

In the ***Concepts, Reviews and Syntheses*** section, we seek papers on emerging issues in ecology, especially those that cross multiple boundaries in ecology, provide synthesis of important bodies of work or delve into new combinations of theory and observations with the potential to create new paradigms or challenge existing paradigms. These papers are usually invited, but we welcome unsolicited contributions. In the ***Views and Comments*** section we seek short papers with the intent to provide contrary and/or broader perspectives on papers recently published in *Oecologia*. Alternatively, pairs of short papers which present opposing views on a topic of high interest in the ecological research community will be published in this section, with the intent to stimulate open debate. In both cases, the papers must be relatively short (up to 5 printed pages in the case of opposing view pairs of papers, or up to 3 printed pages in the case of comments on previously-published work), and to contain not only an opinion or criticism on methods or statistics, but also relevant data or original analyses that support the opposing view or comment. Manuscripts or

letters intended for the Views and Comments section will be reviewed by one of the Editors-in-Chief and a Handling Editor in the field appropriate to the submission. **Special Topics** are a collection of integrated papers on a critical topic of broad interest. Proposals for Special Topics should be submitted to one of the Editors-in-Chief. **Methods** are papers that outline new approaches that address standing questions in the discipline. **Original Research** papers provide the core of our journal and represent original investigations that offer new insights into ecological systems.

These are the **topics** associated with each Editor-in-Chief, for use at submission:

<i>Plant Interactions: Plant-Microbe and Plant-Animal</i>	Carlos L. Ballaré
<i>Terrestrial Invertebrate Ecology</i>	Nina Farwig
<i>Plant Population and Community Ecology</i>	Melinda Smith
<i>Plant Physiological and Ecosystem Ecology</i>	Russell K. Monson
<i>Aquatic Ecology</i>	Joel Trexler
<i>Terrestrial Vertebrate Ecology</i>	Indrikis Krams

Please select the Editor most relevant to your paper.

Legal and ethical requirements

Ethical responsibilities of authors

This journal is committed to upholding the integrity of the scientific record. As a member of the Committee on Publication Ethics (COPE) the journal will follow the COPE guidelines on how to deal with potential acts of misconduct.

Authors should refrain from misrepresenting research results which could damage the trust in the journal and ultimately the entire scientific endeavor. Maintaining integrity of the research and its presentation can be achieved by following the rules of good scientific practice, which includes:

- The manuscript has not been submitted to more than one journal for simultaneous consideration.
- The manuscript has not been published previously (partly or in full), unless the new work concerns an expansion of previous work (please provide transparency on the re-use of material to avoid the hint of text-recycling (“self-plagiarism”).
- A single study is not split up into several parts to increase the quantity of submissions and submitted to various journals or to one journal over time (e.g. “salami-publishing”).
- No data have been fabricated or manipulated (including images) to support your conclusions
- No data, text, or theories by others are presented as if they were the authors own (“plagiarism”). Proper acknowledgements to other works must be given (this includes material that is closely copied (near verbatim), summarized and/or paraphrased), quotation marks are used for verbatim copying of material, and permissions are secured for material that is copyrighted.

Important note: the journal may use software to screen for plagiarism.

- Consent to submit has been received from all co-authors and responsible authorities at the institute/organization where the work has been carried out before the work is submitted.
- Authors whose names appear on the submission have contributed sufficiently to the scientific work and therefore share collective responsibility and accountability for the results.

In addition:

- Changes of authorship or in the order of authors are not accepted *after* acceptance of a manuscript.
- Requests to add or delete authors at revision stage or after publication is a serious matter, and may be considered only after receipt of written approval from all authors and detailed explanation about the role/deletion of the new/deleted author. The decision on accepting the change rests with the Editors-in-Chief of the journal.
- Upon request authors should be prepared to send relevant documentation or data in order to verify the validity of the results. This could be in the form of raw data, samples, records, etc.

If there is a suspicion of misconduct, the journal will carry out an investigation following the COPE guidelines. If, after investigation, the allegation seems to raise valid concerns, the accused author will be contacted and given an opportunity to address the issue. If misconduct has been proven, this may result in the Editors-in-Chief's implementation of the following measures, including, but not limited to:

- If the article is still under consideration, it may be rejected and returned to the author.
- If the article has already been published online, depending on the nature and severity of the infraction, either an erratum will be placed with the article or in severe cases complete retraction of the article will occur. The reason must be given in the published erratum or retraction note.
- The author's institution may be informed.

Disclosure of potential conflict of interests

Authors must disclose all relationships or interests that could influence or bias the work. Although an author may not feel there are conflicts, disclosure of relationships and interests affords a more transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interests is a perspective to which the readers are entitled and is not meant to imply that a financial relationship with an organization that sponsored the research or compensation for consultancy work is inappropriate. Examples of potential conflicts of interests *that are directly or indirectly related to the research* may include but are not limited to the following:

- Research grants from funding agencies (please give the research funder and the grant number)
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- Financial support for attending symposia
- Financial support for educational programs
- Employment or consultation

- Support from a project sponsor
- Position on advisory board or board of directors or other type of management relationships
- Multiple affiliations
- Financial relationships, for example equity ownership or investment interest
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- Holdings of spouse and/or children that may have financial interest in the work

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See below examples of disclosures:

Funding: This study was funded by X (grant number X).

Conflict of Interest: Author A has received research grants from Company A. Author B has received a speaker honorarium from Company X and owns stock in Company Y. Author C is a member of committee Z.

If no conflict exists, the authors should state:

Conflict of Interest: The authors declare that they have no conflict of interest.

Statement of Human and Animal Rights

When reporting studies that involve human participants, authors should include a statement that the studies have been approved by the appropriate institutional and/or national research ethics committee and have been performed in accordance with the ethical standards as laid down in the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards.

If doubt exists whether the research was conducted in accordance with the 1964 Helsinki Declaration or comparable standards, the authors must explain the reasons for their approach, and demonstrate that the independent ethics committee or institutional review board explicitly approved the doubtful aspects of the study.

The following statements should be included in the text before the References section:

Ethical approval: “All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.”

The welfare of animals used for research must be respected. When reporting experiments on animals, authors should indicate whether the institutional and/or national guidelines for the care and use of animals were followed.

For studies with animals, the following statement should be included:

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If articles do not contain studies with human participants or animals by any of the authors, Springer recommends including the following sentence:

“This article does not contain any studies with human participants or animals performed by any of the authors.”

For retrospective studies, please add the following sentence: “For this type of study formal consent is not required.”

Declaration of authorship

Authorship means holding responsibility for a written piece of text or artwork. In science, it implies personal involvement in the design, conduct and reporting of new research. An author must have participated in the research, understand the data and the text, and be able to present the contents to others. Principles of authorship are sometimes neglected, leading to questionable assignment of authorship and diminution of the credit for those who deserve authorship.

Providing funds, supervising or hosting researchers, belonging to a research consortium, attending a meeting or a workshop, offering access to samples, organisms or sites, providing technical assistance or preparation of diagrams and tables deserve appropriate acknowledgement, but do not commonly entitle one to authorship. Exceptions are contributions that involve highly technical skills (methodology) or intellectual input (e.g. statistical expertise) that was key to the final product.

All *Oecologia* submissions are required to include a declaration of authorship, including submissions with a single author. The declaration must include an explanation of the contribution or activity of each author to the final product. Submit the declaration of authorship as a footnote on the manuscript title page, using capital initials of authors. When two or more authors share the same initials spell out the last (or middle) name of each to distinguish them.

Please follow the format of the following examples:

Author Contributions: AJT and SSW conceived and designed the experiments. AJT and CR performed the experiments. AJT, CR, FKB analyzed the data. AJT, CR, SSW wrote the manuscript; other authors provided editorial advice.

Author Contributions: JM originally formulated the idea, BLZ developed methodology, PDT conducted fieldwork, BLZ generated sequencing data and molecular analyses, TT and BLZ collaborated in imaging analysis, ISS developed the mathematical models, BLZ and ISS performed statistical analyses, and BLZ and ISS wrote the manuscript.

For manuscripts with a single author, please use the following statement:

Author Contributions: SGJ conceived, designed, and executed this study and wrote the manuscript. No other person is entitled to authorship.”

The Editors-in-Chief reserve the right to reject manuscripts that do not comply with the above-mentioned requirements. The author(s) will be held responsible for false statements or for failure to fulfill the above-mentioned requirements.

Inclusive Language

Using inclusive language allows us to communicate with respect and openness towards individuals and groups while avoiding terms or assumptions that hurt or exclude people. We encourage you to think about using language in a more conscious way that includes everyone, without making unnecessary assumptions about people’s backgrounds, cultures, races, ages, conditions, etc.

Gender-neutral language avoids stereotypes or phrasing that implies that gender dictates people’s preferences or abilities. This can include using plural nouns and pronouns to avoid the gender-specific ‘he’ or ‘she’ or using gender-neutral terms when referring to professions, family members, or groups of people. For example, gender-neutral job titles, such as head teacher, spokesperson, chair, actor, or fisher, are preferable to gendered ones. Use them when referring to all genders. Instead of the generic ‘man’ or mankind’, use ‘people’, ‘individuals’, ‘humans’, or ‘humanity’.

For further reference: <https://www.apaonline.org/page/nonsexist>
<https://consciousstyleguide.com/gender-sex-sexuality/>

Manuscript submission

Authors must submit their articles to *Oecologia* online. Electronic submission substantially reduces the editorial processing, review and publication time. After passing a pre-review assessment for journal eligibility by an Editor-in-Chief and a Handling Editor, submitted manuscripts are subject to peer review and copy editing. Please log directly onto the link below and upload your manuscript following the onscreen instructions. For the review process, the manuscript may be submitted as one single file (PDF, Microsoft Word or Rich Text Format with embedded illustrations, tables, etc.). If the manuscript is accepted, original files (not pdf or html) of the final version of the manuscript must be uploaded for production. Online appendices (Electronic Supplementary Material, ESM) must be submitted in a separate file. There is a total file size limit of 60 MB for a manuscript submission, including ESM. If ESM (e.g., video) exceeds this size, please contact the appropriate Editor-in-Chief directly.

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Manuscript preparation

- The length of articles should not exceed 10 printed pages (equivalent to approximately 35 submitted pages) including all references, tables, figures, and figure legends. Views and Comments submissions must be limited to 3 to 5 printed pages. One printed page corresponds to approximately 3 submitted pages, 850 words text, or 3 illustrations with their legends, or 55 references. There will be a charge of 100 €, plus 19% VAT, for each page exceeding this limit. Editors typically return manuscripts prior to review that are likely to exceed the page limit.
- Manuscripts must be written in English and double-spaced throughout (including references) with at least 2.5 cm (1 inch) margins. Please write in the active voice using the past tense only for methods and results sections.
- Page numbers are optional but should not be included on tables and figures. Pages in Electronic Supplementary Material (ESM) should be numbered separately.
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- Footnotes should not be used, except on the title page or in Tables.
- For indents, use tab stops or other commands, not the space bar.

Manuscript contents (in order)

- **Title page** The title should be concise and informative and less than 200 characters. Short titles (< 15 words) are best and are more often cited. The concept, problem or hypothesis to be tested should be clear from the title. The use of full taxonomic names in the title is discouraged; no taxonomic authorities should appear in titles. On the title page, include name(s) of author(s), the affiliation(s) of the author(s), and the e-mail address,

telephone and fax numbers of the corresponding author. A declaration of authorship is required to be included as a footnote on the title page.

- **Abstract** The abstract should not exceed 250 words in length. Include key quantitative data in the results. Do not repeat the title in the first sentence and avoid phrases such as ‘is discussed’ and ‘needs further research’. Write for a general audience; avoid jargon, undefined abbreviations and literature references.
- **Key words** Five key words should be supplied, indicating the scope of the paper and not repeating terms already used in the title. Each keyword should not contain more than two compound words, preferably only one.
- **Introduction**
- **Materials and methods** Some submissions, such as reviews, may depart from the typical format of Methods-Results-Discussion.
- **Results** Avoid ‘Results are shown in Figure 3’. Instead, say for example, ‘Biodiversity declined with the addition of nitrogen (Fig. 3).’ Be specific: e.g., ‘positively correlated’ instead of ‘correlated’. Refer to magnitudes of effects (e.g. give effect sizes and confidence intervals) rather than just P-values.
- **Discussion**
- **Acknowledgements** Please keep this section as short as possible. Acknowledgements of people, grants, funds, etc. should be placed in a separate section before the reference list. The names of funding organizations should be written in full. Compliance with ethical standards may be stated in the cover letter rather than the acknowledgements section.
- **Declarations** All manuscripts must contain the following sections under the heading ‘Declarations’, to be placed before ‘References’. If any of the sections are not relevant to your manuscript, please include the heading and write ‘Not applicable’ for that section.

Funding (information that explains whether and by whom the research was supported)

Conflicts of interest/Competing interests (include appropriate disclosures)

Ethics approval (include appropriate approvals or waivers)

Consent to participate (include appropriate statements)

Consent for publication (include appropriate statements)

Availability of data and material (data transparency)

Code availability (software application or custom code)

Authors' contributions

Please see the relevant sections in the submission guidelines for further information as well as various examples of wording. Please revise/customize the sample statements according to your own needs.

Here are some examples of statements to be included in the manuscript:

Ethics Approval:

- This study follows the guidelines declared in the Declaration of Helsinki, and was approved by [ethics committee name]; Reference number XXXX.
- All animal experiments were approved by [ethics committee name], reference number XXXX
- Ethics approval for this study was waived by [ethics committee name] according to [reason/law]
- Ethics approval was not required for this study according to local legislation [name of legislation]

Consent to Participate:

- All patients included in this study gave written informed consent to participate in this research. If the patient was less than XXXX years old at the time of the study, written informed consent for their participation was given by their parent or legal guardian.

Consent for publication:

- All patients included in this research gave written informed consent to publish the data and images contained within this case report.
- All patients provided written informed consent to publish the data contained within this article.

Availability of data and materials:

- The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.
- All data produced from this study are provided in this manuscript.
- The data was deposited in [repository name] under the reference number [identifier number].
- The single-cell RNA sequencing clean data reported in this paper have been deposited in the [repository name] under accession number XXXX, which can be publicly accessed at [link].

- **References** Literature citations in the text should be ordered chronologically and indicate the author's surname with the year of publication in parentheses, e.g. Carlin (1992); Brooks and Carlin (1992). If there are more than two authors, only the first author should be named, followed by "et al." For example, "Carlin (1992), Brooks and Carlin (2004, 2005), Jones et al.

(2007) demonstrated...” OR “... well studied (Carlin 1992; Brooks and Carlin 2004, 2005; Jones et al. 2007)”.

References at the end of the paper should be listed in alphabetical order by the first author's name. If there is more than one work by the same author or team of authors in the same year, a, b, etc. is added to the year both in the text and in the list of references. References should only include works that are cited in the text and that have been published or accepted for publication. Personal communications and unpublished works should only be mentioned in the text. Alphabetize the list of references by the last names of the first author of each work. If available, the Digital Object Identifier (DOI) of the cited literature should be added at the end of each reference. Always use the standard abbreviation of a journal's name according to the ISSN List of Title Word Abbreviations <https://www.issn.org/services/online-services/access-to-the-ltwa/> Reference examples:

Journal papers: name(s) and initial(s) of all authors; year; full title; journal title abbreviated in accordance with international practice; volume number; first and last page numbers

Savidge WB, Blair NE (2004) Patterns of intramolecular carbon isotopic heterogeneity within amino acids of autotrophs and heterotrophs. *Oecologia* 139:178-189 doi: 10.1007/s00442-004-1500-z

Chapter in a book: name(s) and initial(s) of all authors; year; title of article; editor(s); title of book; edition; volume number; publisher; place of publication; page numbers

Hobson KA (2003) Making migratory connections with stable isotopes. In: Berthold P, Gwinner E, Sonnenschein E (eds) *Avian migration*. Springer, Berlin, pp 379-391

Book: name and initial(s) of all authors; year; title; edition; publisher; place of publication Körner C (2003) *Alpine plant life*, 2nd edn. Springer, Berlin

Theses: name and initial(s) of author; year; type (e.g., “Master thesis” or “PhD dissertation”); department; institution; place of publication.

Wilson JA (2004) *Habitat quality, competition and recruitment processes in two marine gobies*. PhD dissertation, Department of Zoology, University of Florida, Gainesville, Florida, USA.

- **Tables** Each table should be submitted on a separate page, with the title (heading) above the table. Tables should be understandable without reference to the manuscript text. Restrict your use of tables to essential material. All tables must be cited in the manuscript text and numbered consecutively with Arabic numerals. Provide dimensions or units for all numbers. Identify any previously published material by giving the original source in the form of a reference at the end of the table heading. Tables will be printed with horizontal separation lines only (one below the table's header, one below the column headers, and one at the end of the table); no vertical lines will be printed. Use tab stops to align columns and center numbers around decimals when appropriate. Footnotes to tables should be indicated by superscript lower-case letters (or asterisks for significance values and other statistical data). The number of decimals presented should be sensible and

match the precision of the data. Acceptable file formats for tables include Microsoft Word (.doc), Rich Text Format (.rtf) and Excel (.xls).

- **Figure legends** All figure legends (captions) should be assembled onto a separate page(s) preceding the figures. Each caption should be brief but sufficient to explain the figure without reference to the text. All figures must be cited in the manuscript text and numbered consecutively with Arabic numerals.
- **Figures** Each figure should appear on a separate page, with its figure number but without the figure legend. Figure preparation is critical.
- **Electronic Supplemental Material (ESM)** ESM are on-line appendices and may consist of information that is more convenient in electronic form (e.g. sequences, spectral data); large quantities of original data that relate to the manuscript (e.g. maps, additional tables and illustrations); and any information that cannot be printed (animations, video clips, sound recordings). Submit your material in PDF format; .doc or .ppt files are not suitable for long-term viability. Figures embedded within the ESM text are fine. If spreadsheets are to be interactive, they should be submitted as .xls files (Microsoft Excel), otherwise submit as PDF. Always use MPEG-1 (.mpg) format for audio, video and animation. It is possible to submit multiple files in a .zip or .gz file. Name the ESM files consecutively, e.g. "ESM3.mpg". ESM must be numbered and referred to as "Online Resource". The manuscript text must make specific mention of the ESM material as a citation, similar to that of figures and tables, e.g., "... as shown in the animation (Online Resource 3)". ESM is not subject to copyediting and will be published as received from the author. Authors should format the ESM material exactly as they want it to appear; manuscript title, authors, and contact information for the corresponding authors should be included. Do not include line numbers. ESM will be available in color at no additional charge. Reference to ESM will be included in the printed version.

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