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DESCRIPTION

The ultimate aim of *Ecological Indicators* is to integrate the monitoring and assessment of ecological and environmental indicators with management practices. The journal provides a forum for the discussion of the applied scientific development and review of traditional indicator applications as well as for theoretical, modelling and quantitative approaches such as index development. Research into the following areas will be published.

- All aspects of ecological and environmental indicators and indices.
- New indicators, and new approaches and methods for indicator development, testing and use.
- Development and modelling of indices, e.g. application of indicator suites across multiple scales and resources.
- Analysis and research of resource, system- and scale-specific indicators.
- Methods for integration of social and other valuation metrics for the production of scientifically rigorous and politically-relevant assessments using indicator-based monitoring and assessment programs.
- Approaches on how research indicators can be transformed into direct application for management purposes.
- Broader assessment objectives and methods, e.g. biodiversity, biological integrity, and sustainability, through the use of indicators.
- Resource-specific indicators such as landscape, agroecosystems, forests ecosystems, aquatic ecosystems, wetlands, etc.

The journal seeks innovative papers which provide new developmental and methodological steps for environmental indication. Submissions of results from simple monitoring programs or single case studies, resulting in descriptive approaches without any exploration from the theory of indication, from the methodology of indication, or from the management points of view are not considered suitable for publication in Ecological Indicators.

The following contributions will be accepted:

- Original research papers;
- Review articles;
- Special themed issues;
- Short notes and case studies;
- Viewpoints;
- Letters to the Editor;
Book reviews.

*Ecological Indicators* has an open access companion title, *Environmental and Sustainability Indicators*. It welcomes submissions promoting research on indicators as drivers for environmental management, policy formulation, and interdisciplinary research assessing complex environmental interactions for stimulating sustainable development.

**AUDIENCE**

Scientists, decision-makers and resource managers working with or using ecological and environmental indicators for the long-term goals of assessing extent, condition and trends within the environment.

**IMPACT FACTOR**

2018: 4.490 © Clarivate Analytics Journal Citation Reports 2019

**ABSTRACTING AND INDEXING**

Scopus  
ScienceDirect  
Aluminium Industry Abstracts  
Biological Abstracts  
BIOSIS Citation Index  
Chemical Abstracts  
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We now differentiate between the requirements for new and revised submissions. You may choose to submit your manuscript as a single Word or PDF file to be used in the refereeing process. Only when your paper is at the revision stage, will you be requested to put your paper in to a 'correct format' for acceptance and provide the items required for the publication of your article. To find out more, please visit the Preparation section below.

INTRODUCTION

DESCRIPTION

The ultimate aim of Ecological Indicators is to integrate the monitoring and assessment of ecological and environmental indicators with management practices. The journal provides a forum for the discussion of the applied scientific development and review of traditional indicator applications as well as for theoretical, modelling and quantitative approaches such as index development. Research into the following areas will be published:

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Benefits to authors

We also provide many author benefits, such as free PDFs, a liberal copyright policy, special discounts on Elsevier publications and much more. Please click here for more information on our author services.

AUDIENCE

The target readership is scientists, policy-makers, and resource managers investigating or applying ecological and environmental indicators, from the molecular to the ecosystem and landscape level, to the long-term goal of assessing the condition and trends within the environment towards ecological sustainability.

INTRODUCTION

The journal is concerned with the development and application of ecological indicators, from the molecular to the ecosystem and landscape level, in the scope of environmental quality assessment and management towards sustainability.
Human activities and well-being depend on our capability to develop proper tools to evaluate and help acting upon ecosystems ecological conditions and long term trends. Ecological and environmental indicators and indices play an essential role with regard to this endeavour and must have biological, methodological, and social relevance: they are expected to extract information from raw data in a very condensed form that is of significance to scientists, decision makers, resource managers, and general public.

From a management point of view, a good ecological indicator should be a) simple to apply and easily understood by laymen, b) relevant in the context, c) scientifically justifiable, d) quantitative, e) acceptable in terms of costs, f) covering all relevant and actual problems, and g) sensitive to possible changes. On the other hand, from a more scientific perspective, it should have h) handling easiness, i) sensibility to small variations of environmental stress and/or ecological conditions, j) independence of reference states, k) applicability in extensive geographical areas and in the greatest possible number of communities or ecological environments, and l) possible and reliable quantification. Ecological Indicators can be applied to a wide range of topics going from basic ecology to human ecology and socio-ecological systems, and the journal welcomes research articles, review articles, short notes and studies, viewpoint articles, letters to the Editor, and book reviews. The journal also publishes Special Themes Issues.

**Types of paper**

**Types of papers**

The official language of the journal is English.

The following types of contributions will be accepted:

- Original research papers
- Review articles
- Short notes and studies
- Viewpoint articles
- Letters to the Editor
- Book Reviews

**Original research papers** are expected to report results of original research, and materials should not have been previously published elsewhere, except in a preliminary form.

**Review articles** are expected to cover subjects falling within the scope of the journal which are of active current interest. They may be submitted or invited. Review articles are usually up to 12,000 words and must include a Methods section explaining how the literature for review was selected.

**Short notes** consist of a concise but complete description of a limited or preliminary investigation, which may eventually be included in a later paper. A short note should nevertheless be as completely documented, both by reference to the literature and description of the experimental procedures employed, as a regular paper.

Authors submitting papers focused on the application of existing indicators or indicator systems, on demonstrations, or tests or minor methodological improvements on the basis of regional investigations, as well as condensed articles on new topics concerning ecological indication, are also invited to submit their articles in the form of a short note.

**Viewpoint articles** provide a forum for authors to present a novel, distinctive or even personal viewpoint on any topic falling within the journal's scope. The article should be well arched in evidence and adequately supported by citations, but may focus on a stimulating and assumed provoking line of arguments representing a significant advance in thinking about indicators problems and solutions.

**Letters to the Editor** offer a forum for comments or critiques regarding material published in the journal. The decision to publish submitted letters rests purely with the Editor-in-Chief. It is the hope that the publication of such letters will permit an exchange of views beneficial to the journal and its readers.
**Book reviews** will be solicited by the Editor-in-Chief and will fall upon a range of relevant books no more than 2 years old. Unsolicited reviews will not usually be accepted, but suggestions for appropriate books for review may be sent to the Editor-in-Chief.

**Special Issues**

Special Issues concentrate on a special topic and should consist of a minimum (usually 10) number of manuscripts, an introduction by the guest editors, where the contents and context of the papers is summarized, and - if possible - some concluding remarks. Those interested in serving as guest editors of a special issue should be in touch with the Editor-in-Chief or the publisher to discuss the objectives and scope of the proposed topic. If more information is requested, guest editors will be asked to include an overview of the contributing authors, planned manuscripts and short summaries of their contents.

**Size of papers**

Regular papers
Generally, manuscripts should be about 7,000 words, the maximum length being 10,000 words.

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Short notes should not occupy more than 6 printed pages (about 12 manuscript pages, including figures, tables and references).

This will shorten the reviewing process and will ensure quicker publication times

**Submission checklist**

You can use this list to carry out a final check of your submission before you send it to the journal for review. Please check the relevant section in this Guide for Authors for more details.

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- Journal policies detailed in this guide have been reviewed
- Referee suggestions and contact details provided, based on journal requirements

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**BEFORE YOU BEGIN**

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Referees
All authors must suggest 3 potential reviewers per submission, together with their full addresses and email details. Potential reviewers should not include anyone with whom the authors have collaborated closely.

Submission Guide and Checklist for Authors
SUMMARY GUIDE AND CHECKLIST FOR AUTHORS

This page is a summary of essential information which is hoped to be useful as guidance to the authors during the final checking of an article prior to sending it to the journal’s Editor for review. Please consult the complete Instructions to Authors for details on any item.

First of all, submitting an article to Ecological Indicators implies that it is an original submission which has not been published previously or has not been submitted to any other journal. All authors must suggest 3 potential reviewers on submission and not forget to include their full addresses and email details. The suggested reviewers should not include anyone with whom the authors have collaborated closely.

Before submitting a manuscript to Ecological Indicators, please read the Editorial Policy carefully, which can be found at "Aims and Scope" in the journal website. Be sure that the answer to the following questions concerning the content of the manuscript is Yes: Does the paper focus on the proposal, development, application or evaluation of ecological indicators, considered from the molecular up to the ecosystem and landscape level? Are the results based on ecological/environmental data and observations? Are results explored and discussed from the theory of indication, from the methodology of indication, or from the environmental management points of view, being therefore more than just a descriptive presentation of results from monitoring programs or single case studies? Does the paper emphasize the scientific progress of results in regard to our established knowledge on ecological indicators and in comparison with previously published results? Are all relevant references included?

When submitting the manuscript, please ensure that the following items are not forgotten: Research highlights are identified briefly described; One author has been designated as the corresponding author with the following contact details: E-mail address Full postal address All necessary files have been uploaded, and contain: Keywords All figure captions All tables (including title, description, footnotes) Manuscript has been 'spell-checked' and 'grammar-checked' All references mentioned in the Reference list are cited in the text, and vice versa Permission has been obtained for use of copyrighted material from other sources (including the Internet) Printed version of figures (if applicable) in colour or black-and-white, indicating clearly whether or not colour or black-and-white in print is required.

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PREPARATION
NEW SUBMISSIONS

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**Article structure**

**Subdivision - numbered sections**
Divide your article into clearly defined and numbered sections. Subsections should be numbered 1.1 (then 1.1.1, 1.1.2, ...), 1.2, etc. (the abstract is not included in section numbering). Use this numbering also for internal cross-referencing: do not just refer to 'the text'. Any subsection may be given a brief heading. Each heading should appear on its own separate line.

**Introduction**
State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results.

**Material and methods**
Provide sufficient details to allow the work to be reproduced by an independent researcher. Methods that are already published should be summarized, and indicated by a reference. If quoting directly from a previously published method, use quotation marks and also cite the source. Any modifications to existing methods should also be described.
Theory/calculation
A Theory section should extend, not repeat, the background to the article already dealt with in the Introduction and lay the foundation for further work. In contrast, a Calculation section represents a practical development from a theoretical basis.

Results
Results should be clear and concise.

Discussion
This should explore the significance of the results of the work, not repeat them. A combined Results and Discussion section is often appropriate. Avoid extensive citations and discussion of published literature.

Conclusions
The main conclusions of the study may be presented in a short Conclusions section, which may stand alone or form a subsection of a Discussion or Results and Discussion section.

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If there is more than one appendix, they should be identified as A, B, etc. Formulae and equations in appendices should be given separate numbering: Eq. (A.1), Eq. (A.2), etc.; in a subsequent appendix, Eq. (B.1) and so on. Similarly for tables and figures: Table A.1; Fig. A.1, etc.

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• Author names and affiliations. Please clearly indicate the given name(s) and family name(s) of each author and check that all names are accurately spelled. You can add your name between parentheses in your own script behind the English transliteration. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name and, if available, the e-mail address of each author.
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Abstract
A concise and factual abstract is required. The abstract should be not longer than 400 words. The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separately from the article, so it must be able to stand alone. For this reason, References should be avoided, but if essential, then cite the author(s) and year(s). Also, non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself.

Graphical abstract
Although a graphical abstract is optional, its use is encouraged as it draws more attention to the online article. The graphical abstract should summarize the contents of the article in a concise, pictorial form designed to capture the attention of a wide readership. Graphical abstracts should be submitted as a separate file in the online submission system. Image size: Please provide an image with a minimum
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Immediately after the abstract, provide a maximum of 6 keywords, using American spelling and avoiding general and plural terms and multiple concepts (avoid, for example, ‘and’, ‘of’). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

**Abbreviations**
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**Acknowledgements**
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