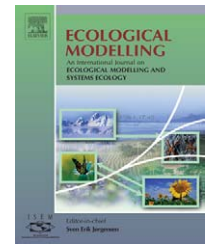




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## Editorial

# The editorial policy of Ecological Modelling

First, we would like to thank the authors of the many high quality papers that have been submitted to Ecological Modelling over the years and the reviewers that have provided valuable feedback to the authors and editors. We are pleased to announce that these efforts are reflected in the journal's impact factor, which continues to rise (Table 1).

The latest numbers rank Ecological Modelling 43rd out of 111 journals in the ecological category, which is quite good for such a specialized topic as Modelling. In addition, the number of full text downloads has also increased (Table 2).

We are pleased with these good signs, and are working to make the journal even better. To that end, we are concerned about the increasing length of publication time because that is an important issue for authors. This increase in processing time is due to several factors such as internal reorganization at Elsevier, which has since stabilized, and primarily due to the increase in the number of papers submitted. In other words, journal success, as demonstrated above, has made Ecological Modelling even more popular. For example, the number of papers submitted to Ecological Modelling has increased from about 400 papers in 2000 and 2001 to about 550 papers in 2004 and 2005. On one hand, this was expected as a consequence of the new electronic submis-

sion and review system. On the other hand, we expected also that the two new journals Ecological Complexity and Ecological Informatics would receive papers previously sent to Ecological Modelling, thereby, offsetting some of the increase. We are on pace, however, to receive more than 700 submissions in 2006 and with the present number of volumes per year of the journal we will only be able to print about 300 papers.

In response to dealing with this increase, two initiatives are being implemented. In the first stage, Brian Fath and Søren Nielsen were brought on as Associate Editors in July 2005 to help handle the increased number of submissions. In the second stage, outlined in the rest of this editorial, we propose a tighter editorial policy to increase the quality of the journal. Please, follow the new editorial policy, which is not changing the scope of the journal, but hopefully will produce better quality papers. We have asked ourselves: what kinds of scientific papers do the readers want that are interested in ecological modelling, systems ecology and ecosystem theory? We have concluded the following, which may also help the authors to prepare their papers before the submission:

- (1) All papers must present a new model or a new contribution to systems ecology. A new soup with old bones cannot be accepted.
- (2) It implies that papers based on the use of statistical analyses on ecological data cannot be accepted. There are other journals that publish the use of statistics in ecology.
- (3) Models that are not new but just apply an existing model on a new case study will not be published. If a model used on a new case study produces some interesting (new) results, then they can be published as a short communication (a few pages only) that will be reviewed by the Editor-in-Chief only.
- (4) Papers that only present a model without support of ecological data for calibration and hopefully also validation of the model will not be accepted because a model has in most cases no interest before it has been held up to ecological reality.
- (5) All papers on models have to inform the readers about what is new in the model compared with previous models

**Table 1 – Ecological Modelling: impact factor increase over last four years**

Year	Impact factor
2002	1.308
2003	1.561
2004	1.652
2005	1.700

**Table 2 – Ecological Modelling: full text downloads**

Year	Number of downloads
2003	264139
2004	353191
2005	361873

focusing on the same or approximately the same problem and ecosystem. The readers are interested to learn how to model a given problem in a given context, which inevitably will require a comparison with other models. *Ecological Modelling* and a few other journals have published so many models during the last couple of decades, that the readers inevitably will ask: why should I use this new model and not the old well-tested models? Or what should I change in the old well-tested models to improve my model? What progress has this new model made in ecological modelling, which I can apply in my model developments?

- (6) The journal is called *Ecological Modelling*, which means that we want to publish papers on models of ecosystems or ecological processes, not models of technological or physical systems. The models should bring new ecological knowledge. It implies, that the papers must strongly emphasize the ecological implications of the model results. Man-made or controlled ecosystems are also ecosystems, for instance a biological treatment plant or a constructed wetland, but models based entirely on hydrological, atmospheric, or other physical processes are not ecological models. These types of models must be shown to have ecological relevance to be accepted.
- (7) New results in ecological theory are most welcome, but again the authors must emphasize what the paper contributes to what we already know in systems ecology. The papers must present how the paper expands our knowledge and if possible also how we can utilize this new knowledge in ecological modelling or in our general understanding of ecosystems.
- (8) New results in modelling theory are most welcome; but again we have to see the implications in development of ecological models for instance by presentation of an ecological model that has been improved by this new modelling theory.
- (9) New controversial results are also most welcome. We do not have in *Ecological Modelling* an editorial policy to reject papers that are not in accordance with orthodox theories. On the contrary, we encourage new ideas even if they are controversial because that will inevitably, in the long run, lead to new scientific results. In this context, you have the possibility to publish a letter to the editor, which can be used to start a discussion among the readers on new but still not fully accepted ideas. The journal would like to see this possibility utilized more in the future to the benefit of our scientific field of ecological modelling and systems ecology. Letters to the editor are only reviewed by the Editor-in-Chief.

This refined editorial policy is encapsulated in the following short questions, which will be applied during the review process:

- (A) Does the paper focus on an ecological model or on systems ecology?
- (B) Are the results based on ecological observations?
- (C) Is the ecological component sufficiently strong?

- (D) Does the paper present new results in ecological modelling or in systems ecology?
- (E) Does the paper clearly emphasize the scientific progress of results in ecological modelling or systems ecology compared with our established knowledge and with previously published results?

All five questions have, under all circumstances, to be answered by "yes" to make an acceptable paper. Papers that according to the review can be revised to meet these requirements will of course be accepted with minor, moderate or major revisions required; but papers that cannot be answered by a "yes" for the questions A, B and D will most probably be rejected because it would require very major revisions to be acceptable. Papers requiring very major revisions to be accepted but which have potential to be an interesting paper with new ecological results will be rejected, but resubmission will be encouraged after very major revisions. The resubmission will require a new complete review of the paper.

In addition to these five questions about the content of the paper, the following questions focus on the presentation of the results:

- (F) Has the model been presented by a conceptual diagram?
- (G) Has the model been presented in such details that the reader is able to develop the model? This question corresponds to a similar question you always would ask about "Material and Methods" for other scientific papers because it is required that other can repeat the experiment and get the same results. In *Ecological Modelling* "Material and Methods" are the model. Note, this does not mean that computer code must be in the text of every paper, but enough information should be given.
- (H) Are the state variables, the forcing functions, and the parameters clearly presented?
- (I) Are the equations presented in sufficient details? Should the equations eventually be presented in an appendix (or on-line)?
- (J) Are all relevant references included?
- (K) Is the discussion also focusing on the scientific progress in ecological modelling (question E)?

These six presentation questions will be considered in the review process, and if some of the questions will be answered by "no", minor, moderate, or major revisions will be required but unless the language is completely unacceptable, the paper will not be rejected. We would like to encourage the authors of papers to be submitted to *Ecological Modelling* to use these 11 questions (A-K) when they are reviewing their own paper before submission to reduce the probability for rejection. If one of the questions A, B and D, even after some modifications and considerations about the content, still will be answered by no, then *Ecological Modelling* is not the right scientific journal for your paper.

We hope that this editorial policy will result in the submission of higher quality papers because the authors will know before submission if a paper fits to the editorial policy of *Ecological Modelling*. The end result will be a higher quality journal, which benefits both authors and readers.

The readers are welcome to write to the Editor-in-Chief about the editorial policy or discuss the submission of papers, Short Communications, or Letters to the Editor.

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