

A STATEMENT FROM INTER-RESEARCH

Climate Research: an article unleashed worldwide storms

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A paper published in Climate Research stirred storms in science, politics and the media. The storms mirror concerns and blank nerves of people interested in and worried about human effects on a very essential prerequisite for our existence and that of millions of other forms of life: the climate.

The storms have underlined problems in the peer review process. While these were known before they hardly affected the credibility of science and the foundations of the scientific process. The storms led to the resignation of 3 Climate Research Editors: Hans von Storch, Clare Goodess, and Mitsuru Ando. A severe loss for the journal! And they caused a flood of mails from scientists, politicians and reporters.

Below I address quality control of scientific papers, resignations of CR Editors, the paper that caused the storms, and consequences drawn by the publisher.

Quality control. As I had stated in my circular of 30.07.03 to members of the CR Editorial Board, I do not know of any scientific publisher or journal which has invested more effort in analysing the structures, functions and problems of quality control than Inter-Research. This statement is evidenced by the following publications:

Kinne O (1988) The scientific process — its links, functions and problems. *Naturwissenschaften* 75: 275–279

MEPS THEME SECTION (2000) The peer-review system: time for re-assessment? www.int-res.com/articles/theme/riisgard.pdf

MEPS Discussion Forum 2 (2000–2003) Peer-review system. www.int-res.com/forum/peer_review.html

MEPS Editorial: Kinne O (2002) Importance and organisation of direct post-publication critique. *Mar Ecol Prog Ser* 228:1

MEPS Editorial: Kinne O (2003) The scientific process: new forces attempt to enter the scene. *Mar Ecol Prog Ser* 254:1

While the instrument of quality control, the peer review process, has stood the test of time, it should be further developed. The review process is a matter to be handled by qualified specialists: editors and reviewers, all selected on the basis of their own scientific performance and qualifications. They are the heart of quality control.

The ultimate judgement of the quality of a given scientific article is made by the world-wide scientific community. Inter-Research offers a formalized structure for the community's critique in the form of COMMENTS and REPLY COMMENTS (see below).

Even a very thorough review process cannot include all essential perspectives and it cannot exclude mistakes or misjudgements. This statement has received support from scientists and science reporters including the Environmental Reporter of the New York Times, Andrew C. Revkin. In his email of 31 July 2003 addressed to me, Andy writes 'As you may have heard, even here at the New York Times we had an instance where one reporter was able to get deeply flawed articles through our quality-control process, and I know about past instances at Science and Nature of the sort you mention, so you've made your case and, to my mind, defended the journal.'

Inter-Research gives its readers the opportunity to criticize IR-published articles in the form of 'COMMENTS' and 'REPLY COMMENTS'. For details consult: '[Importance and organisation of direct post-publication critique](#)'. This alerts the international scientific community to failures, contradictions or differing views.

In conclusion: Quality control at CR was practised along generally established lines. There were no problems over the 13 years of CR existence. But there was insufficient attention to the methodological basis of statements that touch on hotly debated controversies and involve pronounced political and economic interests. CR should have been more careful and insisted on solid evidence and cautious formulations before publication.

Resignations. Inter-Research sincerely regrets the resignations of Hans von Storch, Clare Goodess, and Mitsuru Ando. Hans von Storch has done more than most other members of the CR Editorial Board. Since 1994 he has increasingly been a powerful motor promoting the journal's development. CR has been close to his heart. I am very grateful to him and recently appointed Hans as CR Editor-in-Chief (EiC). He accepted as of August 1, drafted an Editorial and proposed that all mss be submitted to him. His Editorial text draft has drawn both positive and negative responses from editorial board members. It was criticized that the EiC's functions as proposed by Hans would amount to a devaluation of editors and reviewers. Hans' proposal could not assure unbiased high quality ms selection in view of the widely diverging expertises of authors, reviewers and editors. Further Hans made several statements that did not represent the views of all editors; he did not consult with several editors while speaking in their names.

I wanted the editorial by Hans von Storch to be published, but with a green light from the Editorial Board. Hence I asked Hans not to rush the editorial, to consult with the Editorial Board and to publish a revised version. Hans did not like this and decided to resign only a few days after I had appointed him.

No Editor-in-Chief can organize a better and broader basis for quality control than that practised by IR. No single scientist can judge the quality of all mss submitted to a journal with a wide scientific scope such as CR.

As IR sees it the role of an EiC is to

- select editors and nominate them for appointment by the publisher
- motivate and assist appointed editors
- have an eye on the general performance of editors and reviewers
- play a leading role in further developing scientific

aspects of the journal

- identify new research areas to be covered
- suggest experts for covering such additional topical areas
- act as 'trouble shooter': recognize problems and suggest solutions in cooperation with the Editorial Board
- write Annual Reports on the development of CR

The paper that caused the storms (Soon & Baliunas, *Clim Res* 2003, 23:89–110) evoked heavy criticism, not least in *EOS* 2003 (84, No 27, 256). Major conclusions of Soon & Baliunas are: 'Across the world, many records reveal that the 20th century is probably not the warmest nor a uniquely extreme climatic period of the last millenium.' (p. 89) and 'Overall, the 20th century does not contain the warmest anomaly of the past millenium in most of the proxy records which have been sampled world-wide' (p. 104). While these statements may be true, the critics point out that they cannot be concluded convincingly from the evidence provided in the paper. CR should have requested appropriate revisions of the manuscript prior to publication.

Consequences. While admitting that the routine review procedure continues to require critical attention, Inter-Research is determined to protect the principles of the review process, the freedom of editors and reviewers and the presentation of diverging opinions, theories and facts. IR will continue to insist on the highest possible quality of papers published in the pages of its journals (*Marine Ecology Progress Series*; *Aquatic Microbial Ecology*; *Diseases of Aquatic Organisms*; *Climate Research*; *Ethics in Science and Environmental Politics*). We are searching for additional CR editors who will guarantee a high quality of the papers published, as well as a balanced representation of the complex climate scenario also in the future.

See also the latest pertinent Theme Section in Marine Ecology Progress Series at www.int-res.com/articles/theme/m258p297.pdf