

MarBEF training

By Jens Harder

SCIENTIFIC EXCELLENCE REQUIRES lifelong training. The MarBEF joint training programme for marine biodiversity aims at an efficient and effective use of the experience within the MarBEF network to foster biodiversity research in Europe.



Training in progress in marine laboratory.

Training and knowledge exchange is supported by MarBEF on several levels:-

Short-term sabbaticals – Researchers from one MarBEF partner institute can work for up to three months at a second MarBEF partner institute. Although it is hoped that mainly students and postdoctoral researchers will use this tool to exchange active knowledge, the short-term sabbatical is also a means to facilitate the writing of international grant applications.

Training courses – MarBEF has initially supported training courses in taxonomy (phytoplankton, porifera, copepods) and molecular techniques (flow cytometry, software for the taxonomy of microbes) to meet the network's immediate training requirements. Some future training courses have been scheduled within MarBEF themes and RMPs. Early in 2005, the MarBEF scientific steering committee defined the MarBEF long-term strategy for training. A call for training courses was opened on www.marbef.org. The training courses offered by MarBEF partners will be reviewed by the MarBEF scientific steering committee in the light of relevant current and evolving priorities of the MarBEF research programme. This long-term strategy of training will evolve,

constantly responding to demand from within the network. MarBEF training courses will be supported in part by a grant from the network budget. A proportion of places on every course will be reserved for participants from outside of MarBEF, including those from developing countries.

Workshops – In all themes, international workshops are a centre for future development and the spreading of scientific excellence within and outside of the network. Workshops will, in an essential manner, contribute to the key research themes and will integrate national expertise on a European level.

MarBEF as a Network of Excellence hopes to facilitate better integration towards a European Research Area by means of these various instruments that allow the support of many persons across disappearing European borders.

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New MarBEF scientific publications

By Ward Appeltans

Since the last newsletter, ten new peer-reviewed papers have been added to the MarBEF Publication Series (MPS). The MPS holds scientific articles and reports that have been or will be published under the MarBEF banner. The executive and scientific steering committees have developed guidelines to acknowledge MarBEF, as outlined in Appendix 6 of the guidelines and rules document (<http://www.marbef.org/documents/Network/rules&guidelines.doc>). Congratulations to all, and please inform us of your papers before they are printed by emailing info@marbef.org.

List of new MPS papers

Benedetti-Cecchi, L, 2004. Increasing accuracy of causal inference in experimental analyses of biodiversity. *Funct. Ecol.* **18**: 761-768

Benedetti-Cecchi, L, 2005. Unanticipated impacts of spatial variance of biodiversity on plant productivity. *Ecol. Lett.* **8**: 791

Bertocci, I, Maggi, E, Vaselli, S, Benedetti-Cecchi, L, 2005. Contrasting effects of mean intensity and temporal variation of disturbance on assemblages of rocky shores. *Ecology* **86**(8): 2061-2067

Boero, F, Bouillon, J, Piraino, S, 2005. The role of Cnidaria in evolution and ecology. *Ital. J. Zool.* **72**: 65-71

Fraschetti, S, Terlizzi, A, Bussotti, S, Guarnieri, G, D'Ambrosio, P, Boero, F, 2005. Conservation of Mediterranean seascapes: analyses of existing protection schemes. *Mar. Environ. Res.* **59**(4): 309-332

Gattuso, JP, Dawson, NA, Duarte, C, Middelburg, J, 2005. Patterns of publication effort in coastal biogeochemistry: a bibliometric survey (1971 to 2003). *Mar. Ecol-Prog. Ser.* **294**: 9-22

Kaiser, MJ, Austen, MCV, Ojaveer, H, 2004. European biodiversity action plan for fisheries: issues for non-target species. *Fish. Res.* **69**(1): 1-6

Piraino, S, De Vito, D, Schmich, J, Bouillon, J, Boero, F, 2004. Reverse development in Cnidaria. *Can. J. Zool./Rev. Can. Zool.* **82**(11): 1748-1754

Rolbiecki, L, Normant, M, 2005. The first record of parasites in *Gammarus tigrinus* Sexton, 1939 – a recent newcomer to the Gulf of Gdansk. *Oceanologia* **47**(2): 283-287

Terlizzi, A, Benedetti-Cecchi, L, Bevilacqua, S, Fraschetti, S, Guidetti, P, Anderson, MJ, 2005. Multivariate and univariate asymmetrical analyses in environmental impact assessment: a case study of Mediterranean subtidal sessile assemblages. *Mar. Ecol-Prog. Ser.* **289**: 27-42

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Publish wisely or perish?

– an Open Archive for MarBEF

By Ward Appeltans, Jan Haspeslagh Edward Vanden Berghe

WHILE SCIENTISTS ARE publishing around two million papers annually (Odlyzko, 1998), it is surprising to notice that this growing resource of information is seldom easily accessible, even to those scientists. Basically, it is the community at large that funds almost all research, so all information resulting from this research should in principle be publicly available. However, in reality, too many barriers (mostly installed by the publisher) are blocking free and open access to scientific information.

To support a fundamental change in this ultimately self-destructive way of publishing, the MarBEF community – like many other scientific communities before – has the option to join the **Open Archives Initiative**.

The Open Archives Initiative is not a new concept. In 1991, Los Alamos was the first to embark on such an initiative, and created ArXiv (<http://arxiv.org/>). Many new and successful archives emerged since (for a list, see <http://opcit.eprints.org/exploarchives.shtml>). The Flanders Marine Institute (VLIZ) is now developing an open archive for marine sciences in Flanders. Also in Belgium, the library of the Ghent University has recently started an open archive, based on their academic bibliography (<https://archive.ugent.be/index.jsp>). As the interest in the Open Archives Initiative is increasing and with the expertise indoors, taking into account all the benefits it would offer, we feel that it is also time to undertake the journey within MarBEF

Joining an open archive is actually nothing more than self-archiving your eprints, (pre- and post-print articles) in an open domain without any copyright restrictions. It does not alter the existing system of submitting papers to peer-reviewed journals. The author only has to ask for a small amendment in the copyright agreement signed before publishing. Currently, 91% of the commercial publishers already support the initiative and have amended their copyright rules (see <http://romeo.eprints.org/stats.php>).

Open archives are usually managed by a community or an appropriate institution (often a library or a data centre). These digital repositories contain – besides peer-reviewed articles – grey literature, reports, dissertations, proceedings, abstracts, presentations, datasets, etc. and thus serve as a long-term storage of any scientific output in a legal and freely accessible way. Internet and ICT technology allow us to make scientific literature more accessible than ever before. Web-based open-access archives based on distributed systems, thus connected to each other through the Open Archives Information System, have become a powerful

tool to search for literature and full text in different places, through a single search interface. OAIs (ter) (<http://oai.ter.umd.umich.edu/oai/>) is a good example and captures already more than five million records from about 500 institutes.

The benefits of open access eprint archives are countless. The researcher gets a central archive for all his/her publications, for all to see. As a consequence, articles that are stored in open archives are cited at least three times more than articles that are not freely available (Lawrence, 2001). The quality of a paper is often measured according to the number of citations, so direct access of the results to potential users and readers is important for the scientists to get the recognition they desire. As it happens, Gattuso *et al* (2005) showed that in a timespan of 32 years, 20% of the articles on coastal biogeochemistry have never been cited, and stated that this is actually a general situation. We claim that lack of open access is a considerable impediment for the dissemination of knowledge and can partly explain the lack of citations. This is strengthened by the fact that top leading journals in their research field prosecute open access. In contrast, more and more publishers are joining the initiative and, through more citations, experience an increase of their journal's impact factor.

Other than costs related to the internet, the cost to get access to an open archive article drops to zero. Today, there is not a single institution or library that can purchase access to all the information all of its researchers or users require, and only the wealthiest and most powerful institutes can still pay for a reasonable bit of the literature pie. In addition, the cost to access peer-reviewed publications (mainly through subscription, online access and site licences) increases by about 10 to 15% annually (Edlin & Rubinfeld, 2004; Van Orsdel & Born, 2004). This largely exceeds any inflation or increases in library budgets. Furthermore, open access enables reviewers to view all of the research literature they need and hence makes quality control more effective. In addition, the institution or region or specific scientific

domain gains better visibility and the community gets easy, free and permanent access to publications and scientific output, which in return enhances research performance and decision-making. At the end, we all win if the communication channels are optimal.

MarBEF would be able to initiate the open archive on marine biodiversity information in Europe if it got the support of the entire community.

• **For further information and definition of terms relating to open access issues, please see the following sources:**
<http://www.earlham.edu/~peters/fos/guide.htm>;
<http://www.sherpa.ac.uk/romeoinfo.html>.

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