

MarBEF data management

By Edward Vanden Berghe

THE DATA MANAGEMENT team continues to pursue its task of serving the MarBEF community. Although a number of our tasks were pre-planning during the project preparation, we are increasingly working around requests and suggestions from the MarBEF community.

A good example of this is the Macroben database, a compilation of all soft-bottom macrobenthos distributional data, and now similar feedback is currently being applied to the meiobenthic samples.

We are now running a series of websites on behalf of the RMPs, along with the main MarBEF web pages. A number of items of interest are reported in this newsletter, including the creation of a new web-based

information system to facilitate mobility within the network, which is now online.

Concurrent to the above activities, we have been involved in several activities to promote the MarBEF network and its associated data, particularly in an international context. Namely, for data management, ERMS and EurOBIS were promoted during the recent CoML All-Programs meeting in Hamburg. ERMS is now an active part of the EuroHub of

Species 2000. We also have strong ties with IODE and many more... At all these events, we are careful to stress the fact that we're only the data managers, not the data owners, and are proud to be able to report on the good understanding and collaboration found within our network.

Space limitations prevent me from going into detail on all that has happened and is happening with our work as the data management team. Of course, everyone is very welcome to contact us for more details, and we are available to discuss future work on marine biodiversity data management and how we can be of assistance.

Jobs, images, projects and publications

By Ward Appeltans, Bart Vanhoorne, Edward Vanden Berghe & Herman Hummel

The Marine Science Job & Candidate Finder

MarBEF has recently launched the Marine Science Job & Candidate Finder, a specific Mobility Portal for marine sciences; see <http://www.marbef.org/jobs>. The evermore increasing demand for marine science jobs and training programmes has inspired the creation of a system which makes it easier to match the right job or training course to the right candidate.

We offer a facility where recruiters can advertise their jobs or training opportunities free of charge. They can simply enter details of the job or course being advertised and this in turn will be automatically displayed for online users. Therefore, a job seeker or a person currently in employment who may want to improve or update their skills – for example by undertaking an internship, voluntary work, etc – can now freely search our online database for jobs, training courses, etc.

Another valuable resource available within this Mobility Portal is the facility that allows job seekers to submit and store their CVs online.



A glimpse of the job and candidate finder.

An extensive number of fields have been created, not all of which are mandatory, where information on their scientific background, career aspirations and preferences can be stored. Also, as these two archives (i.e. advertised jobs and CVs) are interlinked, a potential employer can see which CVs match their vacancies, and should a potential candidate with a CV in the archive not see the advertisement they will be notified by email when a potential match occurs. Although very little effort has been applied to

advertising the new Mobility Portal since its launch just two months ago, we have received a very positive and encouraging response where already 38 vacancies (of which eight were training courses) have been advertised and 18 CVs posted. This great response reflects the need for such a vital resource for marine science and we would encourage everyone to make use of this service and to promote this facility within your network, especially with regard to your students.



Stolonica socialis.

MarBEF Species Gallery

A photo gallery has been created by MarBEF, containing images of a number of marine species which will help to visually show the variety of marine life found in Europe; visit the web address <http://www.marbef.org/speciesgallery>. These images will also be shown on the European Register of Marine Species (ERMS) website (visit the site at <http://www.marbef.org/data/erms.php>) when appropriate. Everyone with reasonable quality pictures of marine species (from the deep sea to the intertidal zone, including brackish waters such as estuaries and mudflats) are encouraged to submit these images online or by sending email to info@marbef.org.

We believe that by contributing images to the MarBEF Species Gallery you are:

- promoting marine biodiversity (through providing information to as wide an audience as is possible)
- contributing to science (publishing pictures on the internet is comparable to publishing scientific data and information)
- increasing the general knowledge on marine life (a user can click on an image to find out the species' name – ultimately leading to better identifications)

- making this marine biodiversity information available for general (non-commercial) use and joining in the philosophy of free and open access of data and information.

There are already quite a few beauties in the gallery! And as long as the user has no commercial intentions these pictures are free to use, on the condition that the user acknowledges the author in accordance with the MarBEF copyright statement. Although it is always nice to receive high-quality photographs, they do not necessarily have to be artistic; we are particularly interested in receiving pictures showing specific characters of the species and also pictures of the species in their natural habitat.

You can find the MarBEF Species Gallery and all the info at: www.marbef.org/speciesgallery.

RMP project websites

A number of project websites have been built, with several more under construction, by both the MarBEF data management office at VLIZ and by the project partners themselves. The RMP leaders who are using the MarBEF data management office are responsible for delivering regular information to VLIZ, who in return will keep the sites up to date and will inform the network via the weekly news bulletin. In order to

New scientific publications

Since the last newsletter, 15 new peer-reviewed papers have been published. Congratulations to all, and please inform us of your papers before they are printed by emailing info@marbef.org.

List of new MPS papers

Casotti, R., Mazza, S., Brunet, C., Vantrepotte, V., Ianora, A. & Miralto, A. 2005. Growth inhibition and toxicity of the diatom aldehyde 2-trans, 4-trans-decadienal on *Thalassiosira weissflogii* (Bacillariophyceae). *J. Phycol.* **41**: 7-20.

Dell'Anno, A. & Danovaro, R. 2005. Extracellular DNA plays a key role in deep-sea ecosystem functioning. *Science (Wash.)* **309**(5744): 2179.

De Vito, D., Piraino, S., Schmich, J., Bouillon, J. & Boero, F. 2005. Evidence of reverse development in Leptomedusae (Cnidaria, Hydrozoa): the case of *Laodicea undulata* (Forbes and Goodsir 1851). *Mar. Biol.* (online first): published online first.

Dolan, J.R. 2006. Microbial biogeography? *J. Biogeogr.* **33**: 199-200.

Dolan, J.R. 2005. An introduction to the biogeography of aquatic microbes. *Aquat. Microb. Ecol.* **41**: 39-48.

Fraschetti, S., Terlizzi, A. & Benedetti-Cecchi, L. 2005. Patterns of distribution of marine assemblages from rocky shores: evidence of relevant scales of variation. *Mar. Ecol. Prog. Ser.* **296**: 13-29.

Guidetti, P. & Mori, M. 2005. Morpho-functional defences of Mediterranean sea urchins, *Paracentrotus lividus* and *Arbacia lixula*, against fish predators. *Mar. Biol.* **147**: 797-802.

Hyland, J., Balthis, L., Karakassis, I., Magni, P., Petrov, A., Shine, J., Vestergaard, O. & Warwick, R. 2005. Organic carbon content of sediments as an indicator of stress in the marine benthos. *Mar. Ecol. Prog. Ser.* **295**: 91-103.

Janas, U. & Wysocki, P. 2005. *Hemimysis anomala* (G.O. Sars, 1907) (Crustacea, Mysidacea): first record in the Gulf of Gdansk. *Oceanologia* **47**(3): 405-408.

Musco, L. & Giangrande, A. 2005. Mediterranean Syllidae (Annelida: Polychaeta) revisited: biogeography, diversity and species fidelity to environmental features. *Mar. Ecol. Progr. Ser.* **304**: 143-153.

Musco, L. & Giangrande, A. 2005. A new sponge-associated species, *Syllis mayeri* n. sp. (Polychaeta: Syllidae), with a discussion on the status of *S. armillaris* (Müller, 1776). *Sci. Mar. (Barc.)* **69**(4): 467-474.

O'Connor, N.E. & Crowe, T.P. 2005. Biodiversity loss and ecosystem functioning: distinguishing between number and identity of species. *Ecology* **86**(7): 1783-1796.

Puce, S., Calcinai, B., Bavestrello, G., Cerrano, C., Gravili, C. & Boero, F. 2005. Hydrozoa (Cnidaria) symbiotic with Porifera: a review. *Mar. Ecol.* **26**: 73-81.

Terlizzi, A., Scuderi, D., Frascchetti, S. & Anderson, M.J. 2005. Quantifying effects of pollution on biodiversity: a case study of highly diverse molluscan assemblages in the Mediterranean. *Mar. Biol.* **148**(2): 293-305.

Włodarska-Kowalczyk, M., Pearson, T.H. & Kendall, M.A. 2005. Benthic response to chronic natural physical disturbance by glacial sedimentation in an Arctic fiord. *Mar. Ecol. Progr. Ser.* **303**: 31-41.

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obtain further information about the 19 research projects within the MarBEF Responsive Mode Programme, you can visit the site <http://www.marbef.org/projects> where an overview of these research projects, together with their websites, is available.

MarBEF Publication Series (MPS)

After two years, the MarBEF Publication Series (MPS) boasts 27 papers (only five in 2004 because the initiative started in late 2004). It is likely that there was a general misconception about what the MPS stands for, particularly in the early phase of MarBEF when we observed that more than 60% of the papers were from our Italian researchers, portraying a geographic inequity. Without analysing this further here, we will define more clearly what the MPS is.

The MPS is an online archive for papers and reports that are directly or indirectly linked to MarBEF. This means that all the scientific publications that result from MarBEF work, and any of your recent papers on topics relevant to marine biodiversity and ecosystem functioning, can be archived on the web and

downloaded as a PDF. The only requirement to be considered for the MPS is that you acknowledge MarBEF.

The online archive is now restricted to registered MarBEF members, but we hope to open the MPS, in the not-too-distant future, to the general public within the framework of the Open Archives Initiative (Appeltans *et al.* 2005). Already 93% of the publishers do support the OAI, and you can find the list at: <http://romeo.eprints.org/publishers.html>. The benefits of having our own open MarBEF archive are innumerable, and therefore we hope that you understand the importance of joining the MPS.

To get even more out of the MPS papers, we have been screening them and are now providing all the species distribution data via the European Ocean Biogeographic Information System (EurOBIS). It is one of the aims of OBIS to act as a depository for published distribution data, in the same way as DNA sequences are generally required to be submitted to GenBank. MarBEF can play a central role in this process and again here make a difference.

The MarBEF Publication Series is available at <http://www.marbef.org/mps>.

The MarBEF Publication Series data are downloadable at <http://www.marbef.org/data/eurobissearch.php?dataprovder=29>.

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Appeltans, W., J. Haspeslagh & E. Vanden Berghe 2005. Publish wisely or perish? An Open Archive for MarBEF. *MarBEF Newsletter* 3, 13.

European Register of Marine Species (ERMS) – plans turning into reality!

By Daphne Cuvelier, Simon Claus, Ward Appeltans, Bart Vanhoorne, Edward Vanden Berghe & Mark Costello

SINCE THE START of the MarBEF project, much effort from both the data management team and the editorial board has gone into the improvement and completion of the European Register of Marine Species. A board of Associate Editors (including all the taxonomic experts) have been identified, and are responsible for the management and the content of the Register. The entire list of people involved can be found on the MarBEF website at www.marbef.org/data/erms.php. More than 69,000 visitors have browsed these web pages since 24 November 2004.

A little bit of history

The European Register of Marine Species (ERMS) was initiated in 1998 by a project funded under the European Union MAST research programme. It resulted in a species list of almost 30,000 species from European marine waters (Costello *et al.* 2001). Since the update of the ERMS remains a continuous process, a clear data management plan and an Intellectual Property Rights Agreement were created. The copyright of ERMS was assigned to the Society for the Management of European Biodiversity data (SMEBD) (see website:

<http://www.smebd.org/>), a society where all contributors are life members (Costello 2004).

From a static list to a fully dynamic database

Thanks to MarBEF and SMEBD, the data from the ERMS project have been recovered and the static species lists from ERMS 1 (2001) have been transformed into a fully relational database. Another EU project, Species 2000 Europa, provided some of the funding to do the initial conversion. The expertise and

motivation of the data centre of the Flanders Marine Institute (VLIZ) was indispensable and enhanced the process considerably.

Since some months, an online editing tool has been developed and allows the taxonomic editors to add, edit and delete taxa and synonyms, geographic distribution, vernaculars, notes and bibliographic information and provide url links to related resources. A system of passwords was installed that takes into account the taxonomic hierarchy; this means that it is now possible to allocate edit rights very precisely, restricted to any taxon, of any rank, to selected taxonomic specialists.

The ERMS database can now also store pictures of species, which can be uploaded online through the MarBEF website. Anyone who holds copyright over photographs (or other multi-media documents) of reliably identified organisms is invited to contribute these to the system, and share them through ERMS with the rest of the world.