

Progress in Theme 3

By **Mel Austen**

THEME 3 AIMS TO INTEGRATE RESEARCH AND DATA from the network members and to further understanding of the economic, social and cultural values of marine biodiversity. Ultimately, completion of these objectives will help develop the research base required to support the sustainable management of marine biodiversity and ecosystem functioning.

Since last summer's newsletter, there has been a report (on the website) on the "Valuation" workshop held in the Azores in August. At this workshop, participants:

- Clarified the goods and services provided by marine ecosystems, and their definitions;
- Agreed upon a number of valuation methods for these goods and services;
- Applied these valuation methods to a case study (The Atlantic Frontier);
- Chose and validated a method for the valuation of biodiversity (for one case study) which should now be applied to a variety of case studies;
- Continued education and networking of Theme 3.

Participants also prepared a responsive mode project (RMP) proposal to encompass the research objectives of Theme 3. The science objectives of this proposal have been approved, but the implementation of the project is still under discussion within the steering and executive committees. To achieve the project's aims, we will require interaction between researchers in Themes 1, 2 and 3 to integrate natural science and socio-economic research. We will also require close cooperation with natural scientists (Themes 1 and 2) to derive ecological data to underpin quantification of goods and services in different case-study areas. Theme 3 participants would like to encourage other MarBEF members to participate and collaborate in this novel and exciting area of biodiversity research.

Theme 3 would also encourage all members of MarBEF to come to the "Integrating Disciplines" workshop at

the University of Southern Denmark, Esbjerg, on 17-18 May 2005. This workshop aims to bring together all user groups to ensure that a common aim for the Network of Excellence is understood.

MARBEF Theme 3 is initiating new communication links between those working on the marine environment and would like participation from natural scientists, socio-economists and all user groups, including environmental managers. We are already building upon existing links, enabling these groups to identify and discuss areas of common interest and gaps in knowledge. Such dialogue may drastically alter the manner or level of data collection in future research for the purposes of cross-disciplinary comparability.

There is great discrepancy between ecological, social and economic disciplines with regard to terminology and the methodologies used in collection and analysis of data. A primary objective of this forthcoming workshop is to educate those from other disciplines and to exchange the experience of those that have attempted to cross these inter-disciplinary boundaries. This will also be an opportunity to identify areas that are of particular interest, to agree on the gaps that need to be filled and to generate longer-term research plans and co-programme effort. ●

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Theme 3 Workshop 3 report

Workshop 3: "Information required and information available for management of marine systems"

**Hellenic Centre for Marine Research
(HCMR)
Former American Base of Gournes,
Heraklion, Crete, Greece
14-15th December 2004**

By **Olive Heffernan**

A DIVERSE GROUP OF SPECIALISTS attended a MarBEF workshop in Crete in mid-December to discuss the role of information and communications in the management of marine systems in Europe. The Theme 3 "Information" workshop, organised by Christos Arvanitidis of the Institute of Marine Biology of Crete (IMBC), took place at HCMR, Heraklion, Crete, on 14th and 15th December. There were twenty-three participants with varied expertise, among them marine scientists, environmental managers, historians, archaeologists, philosophers, socio-economists and data managers.

An important goal of the MarBEF network is to provide input to the developing EU Marine Strategy, which aims to establish a common approach for promoting the sustainable use of marine resources and the conservation of marine ecosystems in Europe. Achieving this aim will require integrating management with advances in our understanding of the relationship between marine biodiversity and ecosystem functioning. MarBEF intends to unite management with marine science by developing management tools such as decision support systems and scenario analyses, as well as communication tools to aid information exchange between natural scientists, marine environmental managers and other stakeholders. The Crete workshop initiated the dialogue on these goals by addressing the information, data, communications, and decision-making tools required to ensure the sustainable utilisation of marine goods and services.

Opened by Theme 3 Team co-leader Melanie Austen, the meeting was organised into four sessions over two days. Each session consisted of one or more oral presentations, followed by a lively discussion or related group activity. From the outset, a key priority of the workshop was identification of the relationships between goods and services provided by marine systems and anthropogenic pressures in different case-study areas. This was achieved by completing a matrix over the duration of the workshop in which values and directions were assigned to relationships between variables, e.g. does trawl-fishing have an effect on nutrient cycling and is that effect negative or positive? Discussions also addressed the ecological and socio-economic indicators of changes in the goods and services. The two-dimensional matrix is intended to serve as a decision support tool and as a foundation or visible element of an eventual multi-dimensional database. It was also the starting point for the peer-reviewed publication intended as an output from the workshop.

The first session, chaired by Joris Geurts van Kessel (Rijksinstituut voor Kust en Zee, Netherlands), addressed managers' requirements for information from marine scientists. The need to consider both temporal and spatial scales of information requirements was highlighted, as was the importance of a long-term focus such as the European Marine Strategy.

Paul Holm (Centre for Maritime and Regional Studies, Denmark), co-leader of Theme 3, chaired session 2 on the expectations and requirements of users of marine resources such as commercial fishermen, tourists, residential and other stake-holders. This session emphasised the value of historical information in developing a perspective on the current status of marine habitats and biodiversity. Following the session discussion, participants divided into two groups and focused on completing the 'goods and services matrix' for the Dutch North Sea and the Danish Wadden Sea areas with a view to extending the matrix to other case-study areas after the workshop.

Day two of the workshop began with a session on how marine science is currently being applied to decision-making and how we can build on this. Keith Hiscock (Marine Biological Association, UK) chaired the session and presented the *MarLIN* (Marine Life Information Network) approach, which



Participants in Theme 3 workshop in Crete, Greece, December 2004.

is an online tool used by managers to assess environmental threats and their consequences. The discussion highlighted the need for environmental managers to adopt an ecosystem approach to marine system management, in addition to more commonly adopted species-based approaches.

The final session of the workshop, chaired by Olive Heffernan (Ecoserve, Ireland), looked at the communications strategy being developed under MarBEF and how this can be taken forward in the future. The discussion focused on completing a communications matrix, aimed at identifying the most useful communication tools for each end-user group.



The workshop sought to identify the relationship between marine goods and services and anthropogenic activities such as fishing.

Some central topics that arose during the discussions included the importance of integrating results from Themes 1 and 2 into Theme 3; the need to make personal contact with other end-users such as marine resource managers and involve them in the network; and the necessity of developing both short- and long-term strategies for disseminating information to and communicating with resource users.

The diverse mix of participants brought varied perspectives to the workshop, making for a productive meeting with many interesting discussions. This workshop was a promising start to highlighting some of the information and communication issues that MarBEF will need to address if it is to effectively utilise the results from its research components for the sustainable management of marine systems in Europe.

Some revisions were made to the schedule of two forthcoming Theme 3 workshops within MarBEF. The "Integrating" workshop at the University of Southern Denmark, Esbjerg, will now be held on 17-18 May 2005 (contact person: Anne Marboe, ahm@hist.sdu.dk) and the "Development of Decision Support Systems" workshop at the University of Gdansk, Poland, will now be held on 27-28 June 2005 (contact person: Tomasz Zarzycki, tomasz@sat.ocean.univ.gda.pl). These changes will be noted on the MarBEF calendar.

Presentations, participant lists and minutes are available on the MarBEF website under Documents/Minutes of meetings/Theme3/Socio-Economics/Presentations. ●

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