MarBEF Theme 3: Socio-economics

# **Development of decision support systems**

- a Theme 3 Responsive Mode Action Project

Aerial view of Isles of Scilly, England © John Davey

By Anne Husum

The collaborative Responsive Mode Action in the socio-economic Theme 3 is moving ahead: two PhD students were employed during the year.

### Progress made in 2006

Adriana Ressurreição's PhD thesis on 'Economic Valuation of Marine Environment and Biodiversity' is being hosted by the University of the Azores and co-supervised by Gareth Edward-Jones (CEFAS) and Tomaz Ponce Dentinho (University of the Azores). Adriana is focusing on socio-economic valuation using the methodology of 'Exchange Rate between Scientific Currencies: an application to the marine environment' (Dentinho *et al*). Her case-study area will primarily be the Pico-Faial Canal in the Azores.

Elizabeth Bayer has taken up a PhD thesis at the Law School at University of Hull. Her thesis is entitled 'Critical Analysis of Marine Indicator Development within Domestic and International Policy and Legislative Frameworks: Development of a Common Language.' Elizabeth's supervisors are Dr Richard Barnes and Professor Michael Elliott, from the University of Hull.

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Gydnia coastal zone, Orlawo, Poland.

Adriana and Elizabeth both gave a presentation on their work at the PhD training workshop and Theme 3 RMP update meeting in Lecce, Italy, in May 2006.

In Lecce, Tomasz Zarzycki, a PhD student at the Institute of Oceanography, University of Gdansk, also gave an update on his thesis, 'Development of decision support systems to provide cost-effective strategies for effective management of the Gulf of Gdansk ecosystem and biodiversity.' Tomasz is co-supervised by Prof Anna Szaniawska (IOUG, Poland) and Prof Tomaz Dentinho (UAç, Portugal).

During the summer, a Plymouth MSc student, Andy Pearson, took on a project in Scilly, researching the goods and services provided by marine biodiversity. Andy focused his studies on direct use services, and his results are very useful. This project is an important trial of the proposed RMP methodology.

The Core Strategic Project (CSP) management team met to discuss the RMP progress and future activities in Bristol Airport on 25th August, 2006. The Roskilde University team, led by Poul Holm, has taken over responsibility for the CSP and administrative work from 1st September. Roskilde University and the Plymouth Marine Laboratory team, led by Melanie Austen, will continue to coordinate the leadership of the CSP and RMP of the socioeconomic theme.

#### Forthcoming activities

The latest activity in Theme 3 was an RMP update meeting on 16-17th November in the Hague, organised by the National Institute for Coastal and Marine Management – RIKZ. This meeting focused on methodologies and new future activities for Theme 3.

A joint MARBEF-ENCORA workshop on marine and coastal biological valuation will take place

on 6-8th December 2006 at University of Ghent. This workshop is being organised by Steven Draeger and Sofie Derous.

In February 2007, a workshop and report to review indicators/data for quantifying ecosystem goods and services is planned.

The socio-economics Theme 3 will hold a training course on valuation methodologies for marine environments. The proposed date for this course is April 2007.

Considerable effort is currently being made to employ two further PhD students, a socio-cultural PhD student and a decision support systems PhD student. These appointments have been delayed due to a change in circumstances at Roskilde University, where the first appointed decision support systems PhD student regrettably left the project.

An important next step will be the appointment of a number of MSc students. It is hoped these students will be in place for summer 2007. Their research will cover casestudy areas including Isles of Scilly, Flamborough Head, Pico-Faial Canal, Dutch-Belgian coast and the Wadden Sea island of Sylt and Romo. The same methodology will be employed in each of the five study areas.

A PhD and two MSc students at IOUG cover the study area of the Gulf of Gdansk. There will be a training course in spring 2007 which will help to train the students before they begin their research.

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## Table 1: THEME 3 RMP (RESPONSIVE MODE PROJECT)

WP-RMP code and title

2-1 Development of decision support systems (www.marbef.org/projects)

Principal Investigators

Poul Holm and Melanie Austen