



**Australian Government**

**Department of the Environment and Heritage**  
National Oceans Office

# Oceans Action Bulletin

**An Update from the National Oceans Office**

**10 June 2005**

This Bulletin updates you on recent progress in implementing Australia's Oceans Policy and regional marine planning. Please forward to any interested parties. For further information or to unsubscribe from this Bulletin, please email [samantha.meyer@oceans.gov.au](mailto:samantha.meyer@oceans.gov.au)

## **Australia leads on World Ocean Day**

World Oceans Day this week highlighted Australia's world leadership in ocean management, said Minister for the Environment and Heritage Senator Ian Campbell. Senator Campbell lauded Australian efforts in setting an example to other countries in sustainable marine management.

The Minister said that the Government's strong action to enforce whale protection was the latest demonstration of Australia's international leadership on marine issues. This action includes the development of recovery plans for Australia's five threatened whale species (humpback, southern right, blue, fin and sei) that identify the key threats to each of the species and the establishment of a range of programs to ensure ongoing recovery.



The Australian Government's other achievements in the marine environment include:

- The protection of corals, fish, turtles, dugong and other marine species of the Great Barrier Reef, lifting 'no take' zones from 4.5 per cent of the Marine Park to 33.3 per cent.
- The declaration of six new Marine Protected Areas since 1996, increasing the marine protected area estate by about 68 per cent.
- The development of a world-first Oceans Policy and creation of the National Oceans Office, which will see integrated Regional Marine Plans developed across our 14 million square kilometre ocean territory.

Senator Campbell said that with one of the world's largest ocean jurisdictions, Australia's achievements are a good start but there is still much work to do.

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## **South-west Regional Marine Plan Update**

Preparations are well under way behind the scenes for Australia's third regional marine plan, centred on the waters off the south-west of the continent.

The National Oceans Office has started gathering marine science and resource information for the South-west Regional Marine Plan, which will cover Commonwealth marine interests between Kangaroo Island off the South Australian coast and the south-west corner of Western Australia. Four key projects have been identified that will provide supporting information to develop a plan for the region.

The South Australian Research and Development Institute (with Centre for Water Research, University of Western Australia) has been selected to prepare an overview of ecosystem processes and key species in the Region, while the Institute of Regional Development, University of Western Australia, has been selected to undertake a socio-economic overview of the South-west Marine Region.

The ecosystems project should provide a 'systems picture' of the structure and function of the ecosystems of the region based on a critical review of scientific information. The project will also include a review of the state of knowledge for key commercial, conservation and culturally significant marine species in the region. The focus of this project is on consolidation and review of existing knowledge rather than funding new research.

The socioeconomic analysis and description of the marine industries of Australia's South-west marine region focuses on the description of the historical, current and emerging pattern of marine commercial use in the region. The results of this work will provide an information base for the South-west regional marine planning process. Primarily, it will contribute to the scoping stage of the marine plan but it will also be used in other stages of the planning process.

The Australian Institute of Aboriginal and Torres Strait Islander Studies has been commissioned to review Indigenous connections to sea country in the South-west Marine Region. The review will consider contemporary and historical use of marine resources by Indigenous peoples, Indigenous governance arrangements and the key issues and challenges of engaging Indigenous people and their representatives in the Region. The fourth project, currently being developed, is designed to identify maritime heritage values in the Region.

The National Oceans Office, the lead agency for development of the South-west Regional Marine Plan, is focused on delivering a science-based, consultative planning process for the Region. The Office is also considering, in partnership with

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the State Governments of South Australia and Western Australia, the benefits of a partnership approach to marine planning in the Region.

More information, including a timeline for the planning process, will be provided in coming months. Watch this space for further news.

### **North Research voyage report**

The third and final voyage of the Northern Australian Marine Science Survey 2005 has been completed. It recovered a large number of biological specimens, many of which are believed to be new to science and/or new to Australian waters.

The Survey was a multipurpose joint exercise involving the Department of the Environment and Heritage (National Oceans Office), Geoscience Australia (GA), and the CSIRO, using the Marine National Research Facility, the *RV Southern Surveyor*. The goals of the voyage's third and final leg were to explore areas of the ocean floor in the Arafura Sea for natural hydrocarbon seeps, in an assessment of the hydrocarbon potential of the underlying rocks of the Arafura basin, and to study the effect of such seeps on the natural environment. The biological side of the voyage was managed by scientists from the Australian Museum and CSIRO.

The Survey collected seismic and oceanic data, undertook mapping of the sea floor and took geological and biological samples over various habitats. Scientists hope the results will shed light on the existence of natural hydrocarbon seeps and their effects on the benthic (sea floor) environment, providing a link between geomorphology, sediments and biota.

This program has been an important first step in gaining a richer understanding of benthic biodiversity. Further analysis of results is required to improve levels of understanding of the biodiversity of the Arafura Sea and how it relates to other marine ecosystems around Australia.

Although an active seep was not located, an excellent series of samples was collected that should allow a general description of the benthic ecology of the Arafura Sea. Over the next year marine taxonomists from Australian museums will collaborate to identify the species, including conclusively stating which ones are new to science.

This voyage was the first detailed assessment of the benthic biodiversity of the Arafura Sea and how it is related to nearby regions. Scientists from the Australian network of museums and CSIRO will describe and map the distribution of species found during the voyage.

Approximately 245 larger or macroscopic species have been sampled and documented, some of which are expected to be previously undescribed species. Of these species collected, only six were fish species. A large number of smaller,

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microscopic organisms have also been collected and are yet to be documented.



Photograph Karen Gowlett-Holmes

Many of the sediments sampled contain a large number of tiny animals that will need to be further studied within a laboratory environment, which should lead to an improved understanding of the fauna of the Arafura Sea.

An interesting brittle star (ophiuroid) was sampled within the third and final study area. This species (at left) played dead when it was taken to the lab for photography, but after settling under the camera, a touch of its arm caused it to jump quickly away. To the surprise of scientists, it also emitted bright blue-green flashes from the underside of its arms just before it jumped. It was not previously known that ophiuroids possessed this bioluminescent ability.

### Join a Voyage of Discovery

Marine scientists are encouraged to register for a workshop aimed at planning a major biodiversity research voyage in Australian waters.

Census Australia is hosting a workshop as part of the Australian Marine Sciences Association (AMSA) national conference in Darwin in July. Participants in the workshop will have an opportunity to provide input on a potential new biodiversity research voyage, express interest in taking part and share ideas with other scientists about the gaps in knowledge of Australia's marine biodiversity.

The workshop will be complemented by the morning plenary session of the AMSA conference, which will focus on biodiversity issues and current Australian activity related to the Census.

More information on the workshop is available on the Australian Census website – <http://www.coml.org.au:8080/amsa>. To register your interest in the workshop contact the Australian Census Secretariat Alicja Mosbauer on (03) 6221 5038 or email [coml@oceans.gov.au](mailto:coml@oceans.gov.au)

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