

Marine Conservation

A Newsletter about Marine Conservation in CALM

October 2000

FOOD FOR THOUGHT

Marine Conservation and the Output Purchaser Provider Model

CALM is now using the Output Purchaser Provider (OPP) model as the basis for managing its activities. Chris Simpson met with District Managers having marine responsibilities to discuss the implications of this model for marine activities in CALM. It was generally accepted that the marine conservation outputs and services to be 'purchased' by the Nature Conservation Division, will be primarily identified in management documents such as protected area management plans, wildlife management programs and threatened species recovery plans.

Under an OPP model, outputs and services must be formulated, prioritised and reconciled with the resources provided by the 'purchaser' before being 'signed off'. For this to work it is essential that the process is undertaken collaboratively. The major advantage of this approach is that, in the absence of sufficient resources to do everything (always the case), management action will focus on activities of agreed highest priority. A prioritising framework to achieve this has been developed by the Marine Conservation Branch (MCB).

The development of 'best practice' outcome-based marine management plans, undertaken over the past two years, is entirely reconciled with the new approach. Draft management plans for the proposed Jurien Bay Marine Park and the Rowley Shoals Marine Park have been developed along these lines and in close collaboration with the Mid-West Region and the West Kimberley District, respectively. Outcomes and strategies in these plans are prioritised, in relation to both Marine Parks and Reserves Authority (MPRA) and CALM audit requirements, and budgets are also being formulated with the relevant Regional offices to ensure that resource estimates to implement these plans are reconciled with the outputs and services to be delivered. Existing marine plans, such as the Shark Bay Marine Reserves management plan and the Whale Shark Interaction wildlife management program, that have not been developed along these lines will be progressively reviewed to meet the above requirements.

A major task ahead is to develop a framework that will allow outputs and services to be prioritised across the various marine and terrestrial plans and the service requirements from other divisions (e.g. recreation plans, forest management plans). This will be needed because, inevitably, there will be insufficient resources within districts to implement all of the plans in their entirety, at the same time.

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Role of the MPRA

The MPRA is a statutory authority that was created in August 1997 as a result of amendments to the CALM Act. The Authority has seven members from a wide variety of backgrounds and is chaired by Dr Barry Wilson, a marine scientist and former Director of Nature Conservation in CALM. The principal functions of the Authority are:

- as a vesting body for marine conservation reserves and relevant land;
- to develop policies to preserve the natural marine and estuarine environments of the State;
- to provide advice to the Minister for the Environment on marine conservation reserve proposals and other marine issues;
- to submit proposed management plans to the Minister; and
- to audit the implementation of marine management plans by the Department.

The Minister for the Environment may give directions in writing to the Authority in relation to it exercising any of its functions. These directions are included in the annual report of the Authority. The Authority meets every six to eight weeks and meetings are regularly attended by CALM, Fisheries WA, Department of Minerals and Energy, Western Australian Tourism Commission and Department of Resources Development. Government officials cannot 'vote' on any matter under consideration by the Authority and attend to provide briefings and advice as required.

IMPORTANT NEWS IN THIS ISSUE

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MARINE RESERVE IMPLEMENTATION

Jurien Bay Marine Park

Public submission process

The Notice of Intent and the Indicative Management Plan for the proposed Jurien Bay Marine Park were launched by the Minister for the Environment on 4 October 2000. The statutory three-month public submission period will therefore close on 5 January 2001. To assist the public in making submissions, an information sheet is provided in the front of the plan. The MCB has also prepared a pamphlet outlining the main strategies and zones proposed in the plan and a series of questions to assist members of the public who may not have access to the whole plan in preparing a submission. The plan and other relevant reports will also be available on the Internet. Submissions can also be made via the Internet. CALM's web address is: <http://www.naturebase.net>

CALM is also intending to have staff available in late November at Jurien Bay, Cervantes and GreenHead to answer questions and assist the public to make submissions on the plan. Dates for these 'open days' will be advertised in the local press.

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Proposed marine park update

The planning process for the proposed Jurien Bay Marine Park has reached a significant milestone with the release of the Notice of Intent (NOI) and the indicative management plan for the proposed marine park. The NOI and the indicative management plan were officially launched by the Minister for the Environment at a function in Jurien Bay last month. This caps off an extensive three-year resources assessment, public participation and planning program to develop the proposal. The Advisory Committee had seven meetings at which it discussed issues such as the boundaries, purpose and zoning of the proposed marine park. At the same time, CALM conducted a broad public participation process to facilitate community input into the proposal.

The Central West Coast is an exceptionally important area for marine biodiversity, having an unusual mixture of tropical and temperate marine flora and fauna species. It is an important breeding area for Australian sea-lions, has extensive seagrass meadows and exceptionally high water quality. It is also popular for various marine-based recreational activities and supports a number of important commercial fisheries, including the valuable western rock lobster fishery. The indicative management plan is a 'recipe' for how the proposed park will be managed to conserve and maintain its key ecological values as well as managing existing and future human uses of these waters within an integrated, sustainable and equitable framework.

The main strategies recommended for management of the proposed marine park include education of park users, surveillance and enforcement, research and monitoring, public participation and zoning for conservation, recreation and commercial uses. These strategies will ensure the long-term protection of important marine habitats and biodiversity of marine plants and animals in the park. They also aim to reduce conflicts among users and ensure that the quality and opportunity of recreational experiences in the park are maintained, while catering for commercial activities such as aquaculture and the western rock lobster fishery.

The indicative management plan is now available for the community to comment on via the statutory three-month public submission process, which closes on 5 January 2001. The plan can be viewed on CALM's NatureBase at <http://www.naturebase.net> or is available from CALM's Fremantle, Geraldton, Moora and Cervantes offices.

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The Indicative Management Plan will ensure long-term protection of the marine environment in the Park, will aim to reduce conflict among users and ensure human usage is managed sustainably.

INDICATIVE MANAGEMENT PLAN
FOR THE PROPOSED

JURIEN BAY MARINE PARK

2000



The public submissions period is an opportunity for the community to have their say on how the proposed Jurien Bay Marine park could be managed over the next 10 years if gazetted.



Jurien biological survey revisited

Dr Neville Barratt and two technical staff from the Tasmanian Department of Primary Industry, Water and the Environment (DPIWE) will be revisiting the proposed Jurien Bay Marine Park for about 10 days in October/November 2000 to re-survey the monitoring sites established in October 1999. CALM is again providing logistical support and Mike Lapwood from CALM's Broome office will again provide operational support and extensive local knowledge of the area to assist the survey team. Kevin Bancroft from the MCB will also join the team during the first week of the survey. Dr Graeme Edgar, also from DPIWE, will not accompany the team this year as he is on secondment in the Galapagos Islands.

The sites were established to obtain further baseline data on the marine biodiversity prior to marine park zones being established. These data will be used to assess the effectiveness of sanctuary and special purpose (scientific reference) zones over time in providing additional protection for the flora and fauna of the proposed marine park once it is established.

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Some of the beautiful seagrass in the proposed Jurien Bay Marine Park.

Consultation partnerships

Effective public participation in marine reserve planning requires community involvement at a grass roots level, as well as the involvement of peak sector bodies and stakeholder groups. However, broad community participation in Government processes such as marine reserve planning is often very difficult because of the wide range and disparate nature of the interests to be serviced and the significant resources that are required to conduct comprehensive community involvement programs. To overcome these obstacles CALM is developing **consultation partnerships** with key sector and stakeholder groups to share the commitment to facilitate

better grass roots involvement in the planning process. The consultation partnerships aim to:

- utilise existing formal and informal sector communication networks to increase grass roots involvement;
- clarify consultation processes so that all parties are aware of their roles and responsibilities;
- establish shared ownership and responsibility for broad community participation in reserve planning;
- encourage the formation of **sector reference groups** to provide consolidated (rather than disparate) viewpoints into the planning process; and
- maximise effectiveness of Government resource allocations for community liaison and participation in the reserve planning process.

The consultation partnerships also provide an opportunity for CALM staff to work more closely with community sectors to guarantee more effective two-way communication between sector peak bodies and associations, government agencies and the planning advisory committees.

About 60 groups with an interest in the Pilbara marine reserves planning processes were sent invitations in early September to form sector reference groups and to enter into consultation partnerships with CALM.

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Karratha FeNaCING Festival

The annual FeNaCING Festival was held in Karratha on 5-6 August 2000 and CALM's Pilbara regional office set up a tent to promote the proposed marine conservation reserves of the Dampier Archipelago/Cape Preston and Montebello/Barrow islands regions. The tent housed an array of brightly coloured posters produced by Judymae Napier of CALM's Karratha office and the MCB. A range of brochures and information sheets were also provided and a small touch pool was set up for children to view and touch local marine life.

The touch pool was the main attraction and contained a small epaulette shark (very similar to a Port Jackson shark), two species of sea cucumber, fungid corals and a nudibranch. The children, and many of their parents, were fascinated and delighted by the experience of getting close to some of the area's marine animals. The weekend was a success in improving community awareness of the proposed marine conservation reserves and helped many people get in touch with nature!

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Pilbara marine reserves - planning process update



The Burrup Peninsula and the adjacent Dampier Archipelago support large industry in the Pilbara region.

Dampier Archipelago/Cape Preston area

The Advisory Committee for the proposed Dampier Archipelago/Cape Preston marine conservation reserve met on 22–23 August 2000 at CALM's Karratha office. During this first meeting, the Advisory Committee discussed the process of developing a marine reserve proposal, the public consultation process that will be undertaken and the ecological and social values of the study area. The Deputy Chair of the MPRA, Ian Finlay, addressed the committee and broadly outlined the MPRA's expectations. Summaries of the key ecological characteristics of the area, the marine reserve planning process and the results of the community issues analysis were presented by CALM staff. A number of other speakers from government agencies provided overviews of the various social and economic values of the area. These presentations complemented the comprehensive package of information provided to the Advisory Committee to assist members in their deliberations throughout the planning process.

The second day of the meeting involved a boat trip around the Dampier Archipelago. Committee members visited a number of areas of interest in the archipelago and were acquainted with some of the key human uses of the area. These included a pearling farm in Flying Foam Passage, an oil rig moored near the Malus Islands, numerous shacks on some of the islands and the wharves and industrial operations in the inner Dampier Port area. The field trip provided committee members with an opportunity to get to know each other better and also to appreciate the beautiful natural environment of the Dampier Archipelago.

The Advisory Committee plans to meet approximately every three months. Between meetings, MCB staff will facilitate interactions and consultations with the broader community. The next meeting is scheduled to occur in Karratha on 1–2 November.

This project is partly funded by the Commonwealth Government's Natural Heritage Trust Marine Protected Areas Program.

Montebello/Barrow Islands area

The Advisory Committee for the proposed Montebello/Barrow islands marine conservation reserve had its inaugural meeting at Barrow Island on 29–30 August 2000. On the first day of the meeting summaries of the key ecological characteristics of the area, the marine reserve planning process and the results of the community issues analysis were presented by CALM staff. Overviews of the area's social and economic values were provided by speakers from other government agencies.

The Advisory Committee also discussed possible reserve boundaries, key ecological and social values of this area, management objectives and the public consultation process to be undertaken by CALM.

The Advisory Committee undertook a guided bus tour around Barrow Island and a flight over the Montebello Islands. These field trips provided members of the committee with the opportunity to familiarise themselves with the study area and investigate first-hand some of the issues that they will be addressing over the next 12–18 months. A follow up visit to the Montebello Islands was undertaken by most



Aerial photo of the Montebello Islands showing their intricate and convoluted shorelines.

committee members on 21 September to view the pearling operations in the northern part of the islands.

The Advisory Committee plans to meet approximately every three months. Between meetings, MCB staff will facilitate interactions and consultations with the broader community. The next meeting is scheduled to occur in Perth on 7 December 2000.

This project is partly funded by the Commonwealth Government's Natural Heritage Trust Marine Protected Areas Program.

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The islands of the Pilbara region play home to many species of seabirds.

Marine wildlife distribution

Pilbara Region

Marine wildlife distributions for the Dampier Archipelago/Cape Preston and the Montebello/Barrow islands regions have been finalised as part of the information requirements for the Pilbara marine reserves planning processes. Data on the seasonal distributions of whales, sea turtles, dugong and seabirds and the migratory routes of whales and important breeding or nesting areas for turtles and seabirds have been identified. This information has been gathered primarily from anecdotal information from scientists, both from within and outside of CALM, and from the limited existing documentation.

The data have been entered on the MCB's Geographical Information System and maps have been produced. Many thanks to the scientists who devoted considerable amounts of their time in helping us get this information into a format from which the data can be utilised for marine reserve planning.

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Geographe Bay/Capes/Hardy Inlet Marine conservation reserve proposal

The resource assessment phase of the planning process for a proposed marine conservation reserve in the Geographe Bay/Capes/Hardy Inlet region is continuing. The marine habitat map and the biological survey reports have now been completed. A comprehensive generic information framework for the biological and social values of the area is currently being developed. Existing information for this region is being systematically applied to this framework. Gaps in the information needed to assist in the planning process will also be identified and strategies to fill these gaps will be formulated and implemented. This project, due to be completed by January next year is funded by the Commonwealth Government's Natural Heritage Trust Marine Protected Areas Program.

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Some of the beautiful habitats in the proposed Geographe Bay/Capes/Hardy Inlet marine conservation reserve.

MARINE RESERVE MANAGEMENT

Marine Community Monitoring Program

The development of a manual of monitoring protocols is now complete and the manual has been printed. This finalises the second phase of the Marine Community Monitoring Program that is being developed by CALM and the Australian Marine Conservation Society. The first phase of this Program was the production of the CD-ROM marine life identification guide *Marine Life in Western Australia*. About 100 copies of the manual will be available

to community groups which are interested in participating in the Program. Protocols outlined in the manual cover seagrass monitoring, coral bleaching, beach litter surveys and many other areas of interest to the general community.

The completion of the manual is timely as the demand to be involved in marine management by many local communities in Western Australia is growing rapidly. The third phase of the Program, which will include the development of instruction

manuals and/or accredited training courses, has commenced and is due for completion in approximately 12 months. This project is partly funded by the Commonwealth Government's Natural Heritage Trust Coastwest/Coastcare program.

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The Marine Community Monitoring Manual is an important tool for marine management.

District Manager, accompanied the members to Coral Bay and to a number of areas on the western side of North West Cape to assist them in gaining an understanding of some of the important issues facing CALM managers in this area.

The visit also provided the MPRA members with an opportunity to discuss, with CALM staff and the local community, some of the important management issues that will be considered in the upcoming review of the Ningaloo Marine Park management plan. It is obviously very beneficial for the MPRA to become more familiar with the existing marine reserve system by seeing some of the issues first hand. The visits are also appreciated by regional staff and the local community as they show the Authority's keen interest in local issues and concerns.



MARINE AND COASTAL MANAGEMENT

Shark Bay World Heritage Area

Survey of litter on Islands

Funds from a 1999-2000 Coastwest/Coastcare grant, for the removal of litter from several islands in the Shark Bay World Heritage Area, were used with great effect in July this year. Dirk Hartog Island was the focus of the first stage of the clean-up, from 17-21 July, with an initial target of 10 beaches on the island to be 'cleaned'. However, 21 volunteers from the community, along with 15 volunteers from the Australian Trust for Conservation Volunteers and CALM staff, collected litter from 20 beaches on the island. Approximately 1750 kilograms of litter were collected and categorised into the following groups: rope, steel/metals, cans, glass, plastic, rubber, timber and fibreglass. The litter was weighed in their categories and while the bulk of the weight was metal, the most common type of litter collected was, inevitably, plastic.

The second phase of the project, from 24-28 July, was focused on Bernier and Dorre Islands. However, rough weather prevailed and after a night was spent in very uncomfortable conditions CALM staff and volunteers aborted the 'clean up' and returned to Denham. The

MPRA members visit Ningaloo Marine Park

Two members of the MPRA, Eric Streitberg and Tony Van Merwyk, visited CALM's Exmouth District between 3-5 August 2000. They attended a meeting of the Coral Coast Parks Advisory Committee (CCPAC) and met committee members. The Authority members were accompanied by Dr Chris Simpson of the MCB. Apart from attending the CCPAC meeting, the purpose of the visit was to familiarise themselves with the Ningaloo Marine Park and the surrounding environment. Doug Myers, CALM Exmouth

second stage will be rescheduled for later this year. An assessment of the origins of the litter will be made and an educational program will, if necessary, be implemented to encourage users of the Shark Bay Marine Park and the World Heritage Area to dispose of litter properly. An ongoing monitoring program will be designed and implemented to assess whether these management strategies are effective and if the situation improves over time.

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Coastal parks management plan released

During August, the Minister for the Environment released the management plan for the Jurabi and Bundegi coastal parks near Exmouth and the Muiron Islands, about 10 km north-east of North West Cape. The Jurabi and Bundegi coastal parks are jointly vested in the Shire of Exmouth and the Executive Director of CALM as reserves with the purpose of coastal management and recreation. Most of the seaward boundary of both parks extends to the high water mark

and adjoins Ningaloo Marine Park. The inclusion of these coastal areas in the reserve system provides a mechanism to better integrate the management of recreation and commercial activities in both the coastal land reserves and in Ningaloo Marine Park.

The Muiron Islands are jointly vested in the National Parks and Nature Conservation Authority and the Shire of Exmouth and are C class reserves for the protection of flora and fauna and recreation. The waters around these islands were identified, in the Marine Parks and Reserves Selection Working Group report, as worthy of consideration as a marine reserve under the CALM Act.

The Minister also officially opened CALM's new office in Exmouth that was built to replace the office that was extensively damaged by Cyclone Vance in March 1999.

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STAFF PROFILES

Sue Osborne

Sue Osborne was born and educated in England. After completing high school in Birmingham she attended Exeter University to study zoology. Sue completed her honours degree and, in 1979, she won a scholarship to study for a PhD in marine ecology at Heron Island on the Great Barrier Reef. Sue started work with the



Queensland National Parks and Wildlife Service as one of the first field management officers of the Great Barrier Reef Marine Park. After four years, Sue moved to colder climates and took up a position in Canberra as Education Officer with the Australian National Parks and Wildlife Service. In 1988, Sue moved to Western Australia, and back to the tropical coral reefs as the first Manager of Ningaloo Marine Park.

After the arrival of her second child, Sue moved to Perth and worked briefly in CALM's Environmental Protection Branch before moving to the MCB as Community Liaison Officer in 1996. Sue is currently the Portfolio Leader for the Public Participation and Community Education portfolios.

STAFF NEWS

Nick D'Adamo to New Zealand

Nick D'Adamo has been on leave at the University of Canterbury in Christchurch, New Zealand during August and September to complete his PhD. His thesis is examining mixing and exchange processes in Cockburn Sound, a semi-



enclosed coastal embayment in the southern metropolitan area. Nick returned to work on 26 September.

Peter Dans moves to Mundaring District

Peter Dans, Manager of CALM's metropolitan Marine and Coastal District for the past six years, has recently taken up a position as Manager of the Mundaring District. Interviews for Peter's replacement were carried out in October.

OTHER NEWS

Ord-Bonaparte Study

A major environmental study of the catchments, rivers and marine environments of the Ord-Bonaparte Gulf area of the Kimberley region is now being planned by the CSIRO and the Land and Water Resources Research and Development Corporation (LWRRDC). The study area



encompasses the complex hydrological regimes of the Ord River and its associated catchments, as well as the Bonaparte Gulf. The eastern side of Cambridge Gulf, at the mouth of the Ord River, has been identified by the MPRA as a priority area for consideration as a marine conservation reserve under the CALM Act. CALM has collaborated with other agencies and stakeholder groups to assist CSIRO and LWRRDC in developing the broad

objectives of the study and preparing more detailed project briefs in order to ensure that the research is relevant to the management of the area.

CALM staff who are directly involved include Chris Done, Tony Start and Nick D'Adamo. CALM will also provide in-kind support to the study throughout its course over the next five years. Dr Andrew Johnson, from CSIRO, has had the difficult task of bringing it all together. The study has the potential to deliver a wealth of scientific information on the key physical and biological processes that maintain the terrestrial and marine ecosystems of the region. As such, it will help ensure that human activities on the land and in the water are ecologically sustainable.

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Conference 2000

Australasian Remote Sensing and Photogrammetry

Don Damms of CALM's Information Management Branch and Nick D'Adamo from CALM's MCB attended the 10th Australasian Remote Sensing and Photogrammetry Conference 2000 in Adelaide in August. Don presented a paper on the use of aerial photos for mapping of seabed topography in marine conservation reserves. Co-authors on the paper were CALM staff Nick D'Adamo, Ray Lawrie and Leigh Davis. The technology associated with the

capture and application of broad-scale environmental data from satellites and air-borne instruments continues to grow rapidly and has become increasingly more relevant and fundamental to marine management. The vast scales and remoteness that characterise many of CALM's marine conservation reserves (existing and proposed) makes extensive on-site mapping and monitoring expensive, difficult and often impractical. Remote sensing techniques coupled with Geographical Information Systems provide a potential solution to many of these problems. Marine habitats, human usage patterns, biological and oceanographic processes can be effectively mapped and monitored using these tools. The Adelaide conference brought together experts and displays in this vital marine information discipline from both national and international research organisations.

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Marine conservation seminar series

Since the July issue of Marine Conservation Matters seven lunchtime seminars have been held at the CALM Fremantle office. These were:

- The unique ocean environment off Western Australia. Associate Professor Charitha Pattiaratchi, University of Western Australia.
- Time and space scales of the incorporation of sewage nitrogen into the biota of Perth's coastal waters. Dr Anya Waite, University of Western Australia.
- Aspects of estuarine ecosystem health – process versus inventory indicators. David Deeley, Murdoch University.
- Wader and benthic invertebrate studies at Roebuck Bay, Eighty Mile beach and King Sound. Grant Pearson, CALMScience.
- Growing demands for nature-based tourism and what the future may hold for natural resource managers. David Woods, Curtin University.
- Conservation and management of marine mammals. Dr Nick Gales, CALM Nature Conservation Division.
- Biodiversity of shallow reef fish assemblages in Western Australia. Dr Barry Hutchins, Western Australian Museum.
- Can seagrasses be returned to Cockburn Sound? Dr Eric Paling and Davind Tunbridge, Murdoch University.

Marine Conservation Matters is produced by the Marine Conservation Branch of CALM, to broadcast up-to-date information about marine conservation activities in CALM. If you have any queries regarding our newsletter please contact Sue Osborne at the Marine Conservation Branch of CALM. Ph: (08) 9432 5100, Fax: (08) 9430 5408 or email: sueo@calm.wa.gov.au