

Marine Conservation

Matters

A newsletter about Marine Conservation in the Department of Conservation and Land Management

Issue 7 May 2002

MARINE RESERVE IMPLEMENTATION

Dampier Archipelago/Cape Preston Marine Reserve Proposal

Update on planning process

Significant progress has been made with respect to planning for the proposed Dampier Archipelago/Cape Preston marine conservation reserve. The Advisory Committee developing the proposal has now met six times. At its last meeting in December 2001, the Committee finalised the management targets, objectives and strategies for the ecological and social values and began to consider management options regarding the use of zones. The Committee identified fifteen areas that it believed could be established as sanctuary, recreation or special purpose zones.

Feedback on the preliminary zoning proposals is now being sought from the broader community. A detailed information package has been forwarded to the Sector Reference Groups to facilitate this community input. This package includes an explanation of the process used by the Committee to identify the proposed zones, a map of the proposed zones, an inventory of the ecological and social values of each zone and a rationale for the proposed zoning scheme to show how it links with the management strategies, objectives and vision statement for the proposed marine reserve.

The next meeting of the Advisory Committee will be held on the 14-15 May 2002. At this meeting, the Committee will consider the community feedback it receives regarding the proposed zones and make adjustments if necessary. It is anticipated that the Committee will also consider the reserve category for the marine reserve proposal.

If you would like to find out more information regarding the proposals developed by the Committee,



The Advisory Committee for the proposed Dampier Archipelago/Cape Preston marine conservation reserve.

please contact the Departmental staff below.

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

Contacts:

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IMPORTANT NEWS IN THIS ISSUE

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MARINE RESERVE IMPLEMENTATION



Intricate coast line of the Montebello Islands.

Proposed Montebello/Barrow Islands Marine Conservation Reserve

The Advisory Committee for the proposed Montebello/Barrow Islands marine conservation reserve met for the fifth and final time on 12-13 December 2001. During this meeting, the Committee finalised their deliberations on reserve category and zoning, and endorsed the draft indicative management plan for the proposed reserve. The Committee decided to recommend a combination of reserve categories to best achieve conservation objectives for the area while allowing for current and future human usage. The Committee's recommendation comprises a marine park in the Montebello Islands area and a smaller marine park in the vicinity of Turtle Bay on the western side of Barrow Island. These proposed parks are zoned using a combination of sanctuary, recreation, special purpose and general use zones. The remainder of the waters have been recommended as a marine management area, with some areas proposed to be zoned to provide additional protection under Section 62 of the *Conservation and Land Management Act 1984*.

The Minister for the Environment and Heritage, Hon Dr Judy Edwards MLA attended a dinner held for the Advisory Committee after their last meeting. She commended the Committee members on their efforts in effectively working through difficult issues to reach an outcome that is broadly supported by stakeholders.

Although the Advisory Committee's involvement in the planning process is largely over, there are still many steps to be undertaken. Some outstanding issues, as indicated in the draft indicative management plan, must be finalised before the plan is forwarded to the Minister for the Environment and Heritage. To assist in this process, a working group has been formed comprising representatives from petroleum

companies, the Australian Petroleum Production and Exploration Association, the Department of Mineral and Petroleum Resources, the Department of Environment, Water and Catchment Protection and the Department of Conservation and Land Management. The working group objectives are to clarify Government regulations and approvals processes for the petroleum industry in marine conservation reserves and to make recommendations on improving these processes. The working group will also assist in finalising several management targets in the draft indicative management plan of particular relevance to the industry. It is anticipated that the working group will complete its task in May. The draft indicative management plan will then be forwarded to the Minister for the Environment and Heritage. It will also be forwarded to the Marine Parks and Reserves Authority for their consideration and advice to the Minister under Section 14 of the *Conservation and Land Management Act 1984*. Upon receiving this, the Minister for the Environment and Heritage will seek the approval of both the Minister for State Development and the Minister for Fisheries to release the proposal for public comment. The subsequent three month public submission period is another opportunity for the community to have further input to the planning process.

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

Contacts:

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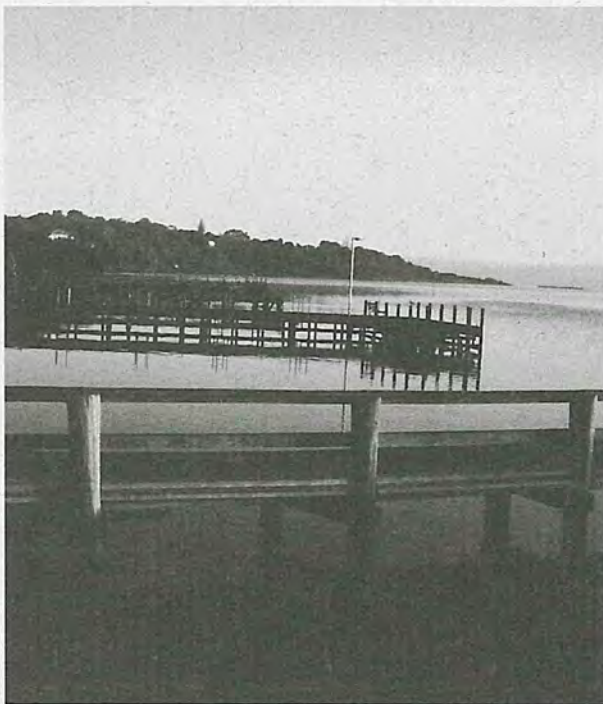
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The Advisory Committee members for the proposed Montebello/Barrow Islands marine conservation reserve: (from left to right) Craig Thomas, Noel Parkin, Norm Halse (Chair), Kellie Pendoley, Russell Lagdon, Dr Iva Stejskal, Guy Leyland, Vicki Long, John Baas and Di Walker (MPRA observer). Missing: John Jenkin.



Hardy Inlet. Photo courtesy of Neil Taylor

Hardy Inlet Advisory Committee

The Shire of Augusta-Margaret River is proposing to form an advisory committee to prepare a management plan for the Hardy Inlet. The committee is to work together with the Council and relevant Government Authorities to "... address the effects of increasing demand from waterway users and to establish any necessary strategic directions, development guidelines and/or controls as well as relevant parameters to assist in the determination of environmental impacts and how such impacts could be mitigated". The Department of Conservation and Land Management will be represented on the committee and will ensure links are established between this Shire initiative and the proposed marine conservation reserve in this region (see next article).

Contact: Andrew Hill, Senior Marine Planner, Marine Conservation Branch.
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Geographe Bay/Leeuwin-Naturaliste/Hardy Inlet Marine Reserve Proposal

The establishment of Sector Reference Groups

The Department of Conservation and Land Management is working with stakeholders to establish sector reference groups in preparation for the proposed Geographe Bay/Leeuwin-Naturaliste/Hardy Inlet marine reserve planning process. The initial stages of planning this marine reserve will focus on a Ministerially-appointed community advisory committee that will assist the Department, via a planning process, to provide advice regarding the type, boundaries and management strategies, including zoning, for the proposed reserve.

To ensure the effective participation of the broader community in the development of this advice, the advisory committee will need to both inform community groups of their deliberations and to seek their opinions throughout the planning process. The establishment of communication pathways between the advisory committee and community groups involves working in partnership with stakeholders to identify sectors, or groups, which are willing to commit to the consideration and dissemination of information received from the advisory committee, and to the compilation of the views of group members into consolidated sector responses back to the advisory committee.

The sector reference groups will be consulted after each advisory committee meeting and thereby provide an effective mechanism for broad community participation in the development of a draft indicative management plan for the proposed Geographe Bay/Leeuwin-Naturaliste/Hardy Inlet marine reserve.

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Public participation in the planning process for new marine conservation reserves is extensive.

MARINE RESERVE MANAGEMENT



The dugong aerial survey team.

2002 summer aerial survey for dugongs in Shark Bay

An aerial survey to determine the summer distribution and abundance of dugongs within the Shark Bay World Heritage Property was completed in February 2002. The survey, the first summer aerial survey of dugongs in this area, involved over 35 hours of flying along predetermined parallel east-west transects across the Bay. The results indicate that the summer population of dugongs within Shark Bay is approximately 12,000, which is within the 10,000–14,000 range of the winter population estimates



Dugong.

recorded in 1989, 1994 and 1999. The majority of the animals were located within the lower portions of the Bay, particularly in the eastern gulf around the Gladstone area and in the southern most area of Henri Freycinet Harbour. Groups of up to 120 animals were observed stirring up the sediment creating feeding plumes as they grazed upon seagrass.

Flying conditions and visibility were good during the survey, and this allowed the survey to be completed in a relatively short period of six days. The distribution patterns and abundance estimates determined from this survey will be used with information from the concurrent dugong tracking study to provide a greater understanding of the seasonal movement patterns of dugongs within the Shark Bay Marine Park and World Heritage Property. These data will contribute to improved management of a dugong population which is of international conservation significance.

This project is funded by UNESCO World Heritage.

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*Southern visitor is taking up permanent residence Southern elephant seal resting on a beach in Ningaloo Marine Park.
Photo courtesy of Roland Mau*

Southern visitor is taking up permanent residence

Ningaloo Marine Park already has its fair share of Australia's diverse marine wildlife but over the last few years, and as recently as February 2002, the Exmouth District office has been receiving regular reports of a large seal. Photo identification has confirmed the individual to



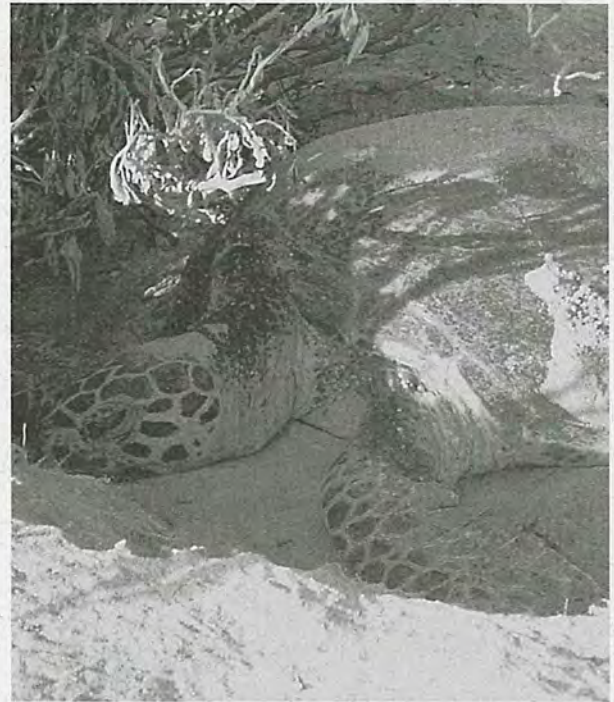
be a male southern elephant seal, *Mirounga leonina*, a species usually found in sub-Antarctic latitudes.

The Ningaloo visitor has made himself at home and is generally found resting above the high water mark covered in sand. He has also broadened his normal diet of squid, cuttlefish and fish to include the occasional sea turtle.

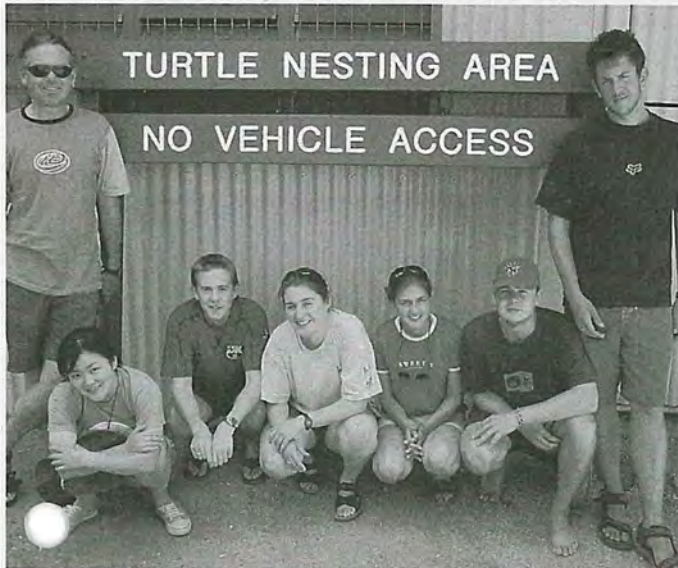
Although not known to attack humans, elephant seals have the potential to inflict serious harm and departmental staff are warning tourists not to approach too close to this animal.

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Turtle nesting.



The Shell Conservation Volunteers contributed to the protection of turtles at Ningaloo Marine Park. Photo courtesy of Roland Mau

Shell Conservation Volunteers at Ningaloo Marine Park

What entices a group of young people from as far afield as Scotland, Canada and Korea to come to Exmouth and volunteer their time in the heat of a north-west summer's day? It must be the opportunity to see and help protect the nesting turtles on the Jurabi coast adjacent to Ningaloo Marine Park.

Over the Christmas break, a group of seven Shell Conservation Volunteers assisted the Shire of Exmouth and the Department of Conservation and Land Management to make and install 15 signs advising visitors to the Jurabi Coastal Park of turtle nesting areas and beach access restrictions.

The *Jurabi and Bundegi Coastal Parks Management Plan* recognises the Jurabi coast as a prime site for turtle and seabird rookeries. A strategy in the plan relating to these activities is "... *guide or restrict public access and wildlife interaction where necessary so that conservation values are protected*".

Nesting female turtles and hatchlings are very vulnerable to disturbance and it is estimated that only one hatchling in a thousand reaches adulthood. The Shell Conservation Volunteers have made a significant contribution to minimising additional pressures from human activities along the Jurabi coast at the northern end of Ningaloo Marine Park.

Contact: Roland Mau, Marine Conservation Officer, Exmouth District, Exmouth.

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Monitoring is used to assess the health of habitats in Western Australia's marine conservation reserves

Metropolitan Marine Parks Monitoring Program

Staff from the Marine Conservation Branch and the Swan Coastal District have begun establishing additional long-term monitoring sites in Perth's three marine parks: Marmion Marine Park, Shoalwater Islands Marine Park and Swan Estuary Marine Park. These sites will complement existing monitoring and study sites, some of which date back to the early 1980s. The aim of the monitoring program is to gather quantitative baseline data needed to assess the status and trends in the 'health' of the benthic habitats of these marine parks.

The focus of the monitoring program is on the parks' ecological values that are most threatened by human activities, such as seagrass and macroalgae habitats. Approximately 30 permanently-marked sites are being established in shoreline intertidal macroalgal habitats and in subtidal seagrass and macroalgal habitats. Some sites are located in 'undisturbed' locations as 'reference' sites where the influence of natural biological (e.g. recruitment) and physical (e.g. winter storms) factors can be better understood. Other sites are located in areas of known or potential high impact such as the shoreline intertidal reef platforms of Marmion Marine Park where high human usage of these reefs and where groundwater and surface drainage appear to be causing impacts.

Benthic habitats are being surveyed using standard methods. Additional data on fish diversity, the abundance of selected species, the presence/absence of key indicator species of particular conservation interest (e.g. seadragons and large molluscs such as baler shells) and evidence of particular human impacts (e.g. litter) are also being recorded. The data acquired during this program will be analyzed and summarised in a future issue of *Marine Conservation Matters*.

The establishment of a network of benthic monitoring sites within the metropolitan marine parks, completes the five year program of establishing permanent monitoring sites in all seven existing marine conservation reserves in Western Australia.

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Swan Estuary Marine Park benthic habitat mapping

The Marine Conservation Branch and staff from the Swan Coastal District recently conducted a habitat ground-truthing survey in the Swan Estuary Marine Park. Information on the distributions and depths of different substrata and biological assemblages was gathered using a combination of snorkelling and observations from a boat.

The information gathered during this project has been incorporated into the Marine Habitats Database and will be presented as marine benthic habitat maps of each of the three areas of the Swan Estuary Marine Park: Alfred Cove, Pelican Point and Milyu. A knowledge of the distribution of benthic habitats is essential for the on-going management of the marine park and continues the Statewide on-going program of developing a better understanding of the ecology and usage of existing marine conservation reserves in Western Australia. The use of Geographical Information Systems as the principal data management framework will allow these datasets to be widely accessible and provides the platform to continuously add to, improve and upgrade the data.

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Departmental staff survey the Swan Estuary Marine Park.

MARINE AND COASTAL MANAGEMENT



Australian sea lions inhabit many of the islands of the Recherche Archipelago. Photo courtesy of Eva Boogaard

Marine wildlife distribution in the Recherche Archipelago region

The Marine Conservation Branch (MCB) is undertaking a project that will provide a better understanding of the temporal and spatial distributions of marine wildlife in the Recherche Archipelago region. The project entails gathering existing data from technical reports and observations by scientists, fishermen and the general public, incorporating these data into the MCB's Geographic Information System and compiling this information into a summary map.

The summary map will show the seasonal distributions of seabirds, Australian sea lions, New Zealand fur seals and whales and highlight areas of particular conservation significance. The marine wildlife distribution mapping is part of the marine resource assessment of the area and will contribute to the information base required for the planning of a marine conservation reserve in the Recherche Archipelago. This work is part of a project funded by the Natural Heritage Trust under its Marine Protected Areas Program.

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Humpback whale entanglement

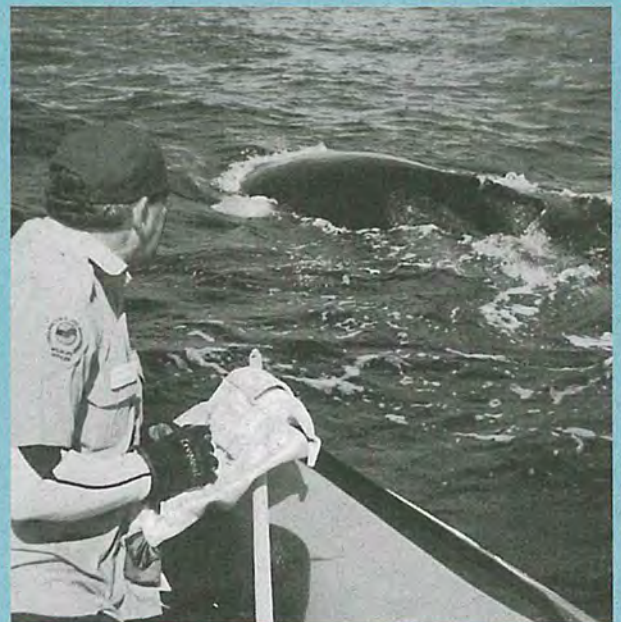
On the morning of 4 December 2001 the Department received a report of a Humpback Whale (*Megaptera novaeangliae*), possibly a calf, caught in a lobster pot rope south of Favourite Island in the proposed Jurien Bay Marine Park. Local fishermen confirmed that the animal, about eight metres long, was entangled in about eight metres of water in an obviously distressed condition.

A team made up of Wildlife Protection Section and Swan Coastal District staff left Perth and arrived in Jurien Bay within five hours of the first report. On reaching the whale, it was obvious that the trapped whale calf would die if it was not freed quickly. Tiger sharks, attracted by the distressed animal, also posed a significant threat to the calf which had already had most of its left pectoral fin bitten off. Calm weather and an obviously exhausted calf helped the team to free the rope from the calf's mouth. Once free, the whale moved slowly towards the coast, possibly in an attempt to shake off the tiger sharks that were still shadowing it.

When the calf began to display signs of recovery the team returned to shore. Over the ensuing days there were no reports of a dead or stranded humpback calf in the Jurien area suggesting that the calf may have survived its ordeal.

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Trained staff from the Department were able to free a young humpback from entangling ropes. Photo courtesy of Peter Lambert

STAFF NEWS



Staff profile

Andrew Hill

A diverse range of experiences has taken Andrew to his current role in the Marine Conservation Branch (MCB) as the coordinator of planning processes to create new marine conservation reserves including the development of management plans.

After completing a Bachelor of Science at the Australian National University, Andrew commenced work with the newly formed Department of Conservation and Land Management in 1985. During his first five years, he worked in terrestrial operational roles in the Pemberton and Dwellingup offices before transferring to the Geraldton office in the Midwest Region. During his time here, he was able to pursue his long held interest in the marine environment by working on the Shark Bay World Heritage Property, future management of the Abrolhos Islands and management plans for the Shark Bay Marine Reserves, Monkey Mia Reserve, and the Central Coast Regional Planning Strategy.

After five years in Geraldton, Andrew took up the position of Environment Manager with the Rottnest Island Authority and then joined the MCB in 1999 to progress the statewide marine reserve implementation program.

Andrew has recently commenced a Professional Doctorate at the Notre Dame University which will focus on the challenges involved in establishing and managing a statewide system of marine conservation reserves in Western Australia.

Staff Movements

Kylie Ryan has left the Marine Conservation Branch to take up the Marine Conservation Officer position for the Swan Coastal District. For the last two years, Kylie has been involved in a wide range of duties, including marine reserve planning, the development of educational tools and monitoring. She has also taken part in twelve weeks of training as part of the Department's field officer recruit program. We wish her every success in her new position.

Suzanne Gattrell has recently joined the Marine Conservation Branch as a Community Liaison Officer on a 3 month contract. Suzanne has a Masters in Coastal Management and has worked in Mexico on marine park planning and sustainable tourism, and in England as a Local Government Project Officer for Coastal, Estuarine and European Marine Site Management. Welcome Suzanne.

Ben Lamb has joined the Marine Conservation Branch as a GIS Officer on a casual basis. Ben recently completed a Degree in Cartography at Curtin University and has previously worked on GIS projects in the mining industry. Welcome Ben.

Melissa Mazzella is a graduate from Murdoch University who has recently finished a short term contract with the Marine Conservation Branch. Melissa maintained and added more images to the marine and coastal image library. The branch would like to thank her for her hard work in this area.

Naomi Kerp, a recent graduate from Murdoch University, joined the Marine Conservation Branch on a short contract to review and summarise community attitudes towards, and awareness of, marine and coastal environments. Her report will provide a basis for the development of a marine communication plan. Thankyou Naomi.

Marine Conservation Matters is produced by the Marine Conservation Branch of the Department of Conservation and Land Management, to broadcast up-to-date information about marine conservation activities in the Department. If you have any queries regarding our newsletter please contact Dr Sue Osborne at the Marine Conservation Branch. Ph: (08) 9336 0100, Fax: (08) 9430 5408 or email: sueo@calm.wa.gov.au

Marine Conservation *Matters*

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