

Marine Conservation

Matters

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

Issue 9 December 2002

MARINE RESERVE IMPLEMENTATION

Update on the proposed Jurien Bay Marine Park

The proposal to establish the Jurien Bay Marine Park is continuing. A draft Cabinet minute is being prepared. At the same time, the Department of Conservation and Land Management is ensuring that all obligations under the Native Title Act are also being met. Once these two steps in the process are completed, the next stage involves the presentation of the proposal to Cabinet to seek approval to gazette the proposed marine park and finalise the management plan that will guide management of the marine park for the next ten years.

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Update on the Dampier Archipelago/Cape Preston marine conservation reserve proposal

The community-based Advisory Committee for the proposed Dampier Archipelago/Cape Preston marine conservation reserve has now met seven times and the preparation of the draft Indicative Management Plan is nearing completion. At the request of the Committee, the Department of Conservation and Land Management undertook a community consultation program, from January to May 2002, to assess broader community views on the zoning scheme developed by the Committee at their December 2001 meeting. The program involved a mail-out of meeting outcomes to 64 stakeholder groups and individuals, newspaper articles, shopping centre displays and presentations. The consultation program resulted in 60 submissions being received from a range of groups and individuals and these were considered at the May meeting. A number of amendments were made to the

zoning scheme as a result of the information and views outlined in the submissions.

The outcomes of the May meeting were conveyed to key stakeholders via the usual Sector Reference Group mail update and to the broader community by providing further briefings and displays. In total, the outcomes of the meeting were distributed to 87 stakeholder groups and individuals. All feedback will be considered at the next meeting of the Committee on 14–15 November 2002. At this meeting it is anticipated the Committee will finalise the draft Indicative Management Plan for the proposed reserve, including the zoning scheme, reserve category and reserve boundary.

The draft Indicative Management Plan will then be forwarded to the Minister for the Environment and Heritage who, in turn, will forward the Plan to the Marine Parks and Reserves Authority for their consideration and advice to the Minister. In due course the Minister for the Environment and Heritage will seek the concurrence of both the Minister for State Development and the Minister for Fisheries to release the plan for public comment. The subsequent three month public submission period is another opportunity for the community to have further input to the planning of this reserve.

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The Dampier Archipelago coastline.

IMPORTANT NEWS IN THIS ISSUE

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Update on the Montebello/Barrow Islands marine conservation reserve proposal

As mentioned in the May 2002 edition of *Marine Conservation Matters*, the Advisory Committee for the proposed Montebello/Barrow Islands marine conservation reserve met for the fifth time on 12-13 December 2001. Although the Committee's involvement in the planning process is largely over, there are several outstanding issues to resolve before the proposal will be released for formal public comment.

In particular, a Government/petroleum industry working group has been set up to clarify the detailed implications, for this industry, of establishing a marine conservation reserve in this area, particularly in relation to project approvals processes and the practical implementation of the management plan. It has met four times and is expected to present its conclusions to the Marine Parks and Reserves Authority by the end of the year. The Authority will decide whether the Advisory Committee should re-convene and consider the outcomes of the working group's deliberations.

Once these outstanding issues have been resolved and the draft Indicative Management Plan finalised, the Plan will be forwarded to the Minister for the Environment and Heritage. It will then be forwarded to the Marine Parks and Reserves Authority for their consideration and advice to the Minister. The Minister for the Environment and Heritage will then seek the concurrence of both the Minister for State Development and the Minister for Fisheries to release the plan for public comment. The subsequent three month public submission period is another opportunity for the community to have further input to the planning of this reserve.

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Geographe Bay/Leeuwin-Naturaliste/Hardy Inlet marine conservation reserve proposal: A Social Perspective

Gaining an understanding of local community attitudes to the marine environment is an important first step in the planning of a marine conservation reserve in an area. To facilitate this understanding, a community attitudinal survey was undertaken in the Capes region of Western Australia's south-west by the Department of Conservation and Land Management. The study, conducted in November and



Recreational fishers, Geographe Bay. Image courtesy of WATC.

December 2001, surveyed a wide range of stakeholder and interest groups who were interviewed about their aspirations, attitudes and concerns for the marine environment of this area. Survey participants were also asked about their level of understanding of marine conservation concepts in general and the proposal to establish a reserve in the Geographe Bay/Leeuwin-Naturaliste/Hardy Inlet region, in particular.

Not unexpectedly, the most broadly supported community vision for the local marine environment is one in which the natural resources are conserved in their natural state as much as possible and where exploited resources are managed in a sustainable manner. There was a generally positive attitude towards the proposal to establish a marine conservation reserve in the region and the community's awareness of the proposal was generally high, indicating the public consultation program undertaken by the Department's Blackwood District has been very successful.

The majority of all those interviewed were positive about the proposal to establish a marine conservation reserve in the region with sixty nine per cent of those interviewed supportive, five per cent non-supportive and twenty six per cent ambivalent about the proposal. Key areas of concern included declining fish stocks (80 per cent of respondents) and the need for adequate sanctuary (i.e. no-take) (30 per cent of respondents) areas while ensuring that zoning equitable and respects traditional use (25 per cent of respondents). On-going education and research programs were also seen as important, as were adequate resourcing for reserve management and an integrated approach to management from government.

The detailed results of the survey have been compiled into an 'Issues Analysis' report. The results will be used to plan and implement public communication and education programs during the reserve planning process and to assist the Department and the proposed advisory committee to develop a vision and a management plan that accurately reflects community aspirations for the area.

The Minister for the Environment and Heritage will seek nominations for the community-based advisory committee in the near future.

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MARINE RESERVE MANAGEMENT

A change in the management of boating use at Coral Bay, Ningaloo Marine Park

Significant improvements are being planned by the Department of Conservation and Land Management to the management of boating and swimming in the waters of Ningaloo Marine Park immediately adjacent to the Coral Bay townsite. As a result of the rapid rise in usage of this area over recent years public safety concerns, environmental damage and user conflict issues have continued to escalate in the southern Bills Bay area. Vessels navigating shallow channels into Bills Bay are also causing significant damage to corals within the channels.

To address these concerns, a draft Maud Sanctuary Zone Management Strategy was developed by the Department, in consultation with representatives of tourism operators, commercial and recreational fishers and relevant Government agencies. The detailed strategy has been summarised into a brochure and released for public comment as the Coral Bay Boating Strategy.

The primary focus of the Strategy is to ensure that vessel access, anchoring and mooring by charter (fishing and nature-based tourism), commercial fishing and recreational boats, are managed to minimise risk to swimmers and to eliminate further environmental damage and allow recovery of the damaged coral communities. The public comment period for the Coral Bay Boating Strategy was from 5 August to 13 September 2002. Comments will be summarised and considered by the Marine Parks and Reserves Authority and recommendations to address issues of concern will be made to the Minister for the Environment and Heritage. Once approved, the Department will commence implementation of the Strategy.

The Strategy is an interim measure to be implemented until better boating facilities are developed in this area. Once these facilities are in place, boating access to Bills Bay will be strictly limited so that conservation, nature appreciation and passive recreational pursuits are the primary management objectives and uses of this unique area of Ningaloo Marine Park.

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Damage to corals in Ningaloo Marine Park results in prosecution

A yacht skipper was found guilty in the Carnarvon District Court of three charges of causing damage to corals in Ningaloo Marine Park. In October 2001, the skipper

attempted to bring his yacht into the shallow waters of southern Bills Bay which is part of Mauds Sanctuary Zone, Ningaloo Marine Park. While attempting to negotiate the narrow channel, the skipper ran aground on the reef and caused extensive damage to the corals in the area.

The vessel was freed by staff from Coral Bay Adventures and the Department of Conservation and Land Management. Over the next few days, further damage was caused when the yacht again entered the Bay against the advice of Departmental staff. The skipper was charged under the *Wildlife Conservation Act 1950* for damaging protected fauna. A penalty of \$1300 was imposed for all three charges plus costs of \$757.50.

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People involved in the whale shark tagging project Grant West, Roland Mau and Ian Helmond (tag designer). Image courtesy of Grant West, CSIRO, Hobart.

Whale shark tagging success

A new method of attaching satellite tags to whale sharks in Ningaloo Marine Park was successfully tested earlier this year after several years of disappointing results from previous tagging studies. The tag was designed by Ian Helmond. Ian has been designing marine instruments for Australian scientists for the past 25 years. Dr John Stevens of CSIRO Marine Research's shark group asked Ian to design new methods of applying satellite tags on whale sharks after previous attempts at tagging whale sharks in Ningaloo Marine Park resulted in the tags being shed soon after tagging.

Ian came up with several designs. One of the tags was used successfully during the autumn 2002 whale shark season in a joint exercise by CSIRO Marine Research, the Department of Conservation and Land Management and the Australian Institute of Marine Science with assistance from Brad Norman (ECOCEAN) and members of Whale Sharks Western Australia. Two whale sharks were tagged: one named *Hope Traveller* by school children from Exmouth District High School and one named *Mandu*, after a gorge on the coast near to where it was tagged. Scientists are using the ARGOS satellite system to track the whale shark's movements. The project was funded by Woodside Energy Ltd.

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Hope Traveller and Mandu follow different paths

The whale shark *Hope Traveller* was tagged on 22 April 2002 and was tracked to Christmas Island and beyond, a distance of 3130 km northwest of Ningaloo Marine Park, when the signal was 'lost' on 17 July. According to CSIRO shark specialist Dr John Stevens, the loss of a signal is likely to be the result of the tag having been shed by the shark.

Mandu was tagged in June 2002 and followed a different route away from Ningaloo Marine Park to that followed by *Hope Traveller*. *Mandu* headed north, visiting the Montebello Islands and then headed towards Indonesian waters reaching to within about 200 kms of the Indonesian Island of Sumba. *Mandu* travelled a distance of 1740 km before the tag signal was 'lost' on the 31 July. Liesl Jonker, who is currently on leave without pay from the Marine Conservation Branch, and is working on the establishment of marine parks on the nearby Indonesian island of Flores, has been contacted to try and find out if *Mandu* was caught by local fishermen.

The data from the long-term tagging of whale sharks that visit Ningaloo Marine Park each year will help in understanding the large-scale migratory patterns of these pelagic sharks. Furthermore, these studies have important implications for the management of the \$9M whale shark interaction tourism industry that has developed at Ningaloo Marine Park over the past ten years.

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Whale shark review

The Department of Conservation and Land Management has commissioned a review of recent research on the whale shark, *Rhincodon typus*. Brad Norman, who is currently working in London with the Marine Stewardship Council, will undertake the review. Brad spent five years studying the ecology and behaviour of whale sharks in Ningaloo Marine Park and is well placed to provide a review of recent local and international research on this pelagic species. The review will be an important contribution in assessing the potential management implications of international and local research and monitoring programs undertaken since 1997 when the Department's Whale Shark Wildlife Management Program was published. Current management arrangements for the whale shark interaction industry will be assessed and, if appropriate, updated during the review of the Ningaloo Marine Park management plan to be undertaken over the next year.

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Sorting through the litter collected.

Beach litter survey in Marmion Marine Park

The *Friends of Marmion Marine Park* (FMMP) recently organised a re-survey of beach litter along the coastline of Marmion Marine Park. The results of the 2002 survey will provide a basis to compare with the results of two previous surveys undertaken in 1985 and 1992. The survey was funded by the Marine Conservation Branch and carried out on 6 July by the Friends group and the First Scout Group of Scarborough, with support from the Department's Swan Coastal District.

The litter was sorted and weighed at Lynda Arnold's (President of FMMP) house. Early indications of the results suggest that the total amount of litter has decreased and that the amount of discarded fishing bait bands, which were a significant component of the total litter in the previous surveys, has decreased suggesting education programs have been effective. The results will be published the next issue of *Marine Conservation Matters*.

A recommendation from the survey was that the number of transects from Ocean Reef to Burns Rocks (i.e. the northern section of Marmion Marine Park) should be increased to take account of the rapidly expanding urban development occurring along this section of the coastline of the marine park. Also the FMMP has expressed an interest in conducting further surveys, at different times of the year, in order to give a broader temporal overview of the state of litter on the park's beaches.

The information from these surveys has important practical management implications such as assisting local councils in optimising coastal rubbish bin locations and in the development of public education programs for the marine park.

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Public Moorings established in metropolitan marine parks

The Department of Conservation and Land Management received a grant of \$256,000 in 2001 from the Natural Heritage Trust National Moorings Program to install public moorings in marine conservation reserves to protect benthic communities from indiscriminant anchoring and mooring.

The Department has since conducted an assessment of the need for moorings in all existing marine parks and is now implementing a program to install moorings in areas of most need. To date, a total of eight public moorings have been established in Shoalwater Islands Marine Park (2) and Marmion Marine Park (6) in the Perth metropolitan area. The moorings have been located in popular recreation/diving sites and four moorings have been established in the patch reef sanctuary zones in Marmion Marine Park. A tender process is currently underway to establish further moorings in Ningaloo Marine Park and these moorings will be installed by March 2003.

The establishment of public and private moorings in marine conservation reserves is being guided by the recently completed joint Marine Parks and Reserves Authority/Departmental Policy Number 59: 'Mooring Policy'. A 'Moorings Database' is also being developed to facilitate efficient administration of moorings by Departmental staff.

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Marine Community Monitoring in Perth's coastal waters

The Department of Conservation and Land Management and the Australian Marine Conservation Society, Western Australian Branch (AMCS-WA), with funding from Coastwest/Coastcare and the Department, are implementing Phase III of the Marine Community Monitoring Program (MCMP). The MCMP aims to develop and strengthen partnerships with community groups around the State by facilitating their involvement in managing their local marine environments through active participation in marine monitoring programs.

Phase I involved the production of a marine life identification CD-ROM entitled 'Marine Life of Western Australia' and Phase II involved the production of a Marine

Community Monitoring Manual, containing selected easy-to-use methods to monitor the marine environment. Phase III is underway and involves testing and, if appropriate, refining existing methods in the Manual. Some new methods may need to be developed if community groups are interested in undertaking monitoring activities not covered in the Manual.

As part of the MCMP, the Department participated in a community forum held on 13 July 2002 at the Rockingham Regional Environment Centre (RREC). The RREC is a community facility located on the shores of Lake Richmond in Rockingham and conducts programs on sustainable living, recycling and environmental education. The forum was held to increase community awareness of the ecological and social values of the marine environment off metropolitan Perth. This was achieved through presentations from local marine scientists and also through a facilitated workshop on marine community monitoring, to which Karen Wheeler and Tim Grubba and Dr Nic Dunlop (AMCS-WA) contributed. One aim of the workshop was to identify marine environmental issues of concern to the local community and to scope the implementation of monitoring programs to help address some of these issues. There was a keen interest by participants at the workshop for the RREC to collaborate with the MCMP in this regard. The workshop highlighted, once again, the enthusiasm many community groups have for helping maintain the health of their local marine environment.

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The community owned, built and run Rockingham Regional Environment Centre - 'Naragebup'. Image courtesy of Naragebup (RREC).



Marine Information Systems in planning marine conservation reserves

Over the past five years the Marine Conservation Branch has continued to develop a statewide Marine Information System (MIS) to support the planning and establishment of new marine conservation reserves and the operational management of the existing marine reserve system. The collation of information in a logical, consistent and structured manner allows information to be updated and retrieved readily and to be sufficiently flexible to cope with the multiplicity of demands placed upon the MIS during, for example, marine conservation reserve planning processes. Often the available information is not in a suitable format and has to be processed by specialist staff familiar with the information needs of these departmental programs. The MIS also allows community-based advisory committees to more easily assimilate the vast amounts of information used in these planning processes by presenting information about the area under consideration in a geographic context.

The MIS uses ESRI Arcview GIS software and incorporates a range of information layers organised into logical groupings. In the preparation for reserve planning meetings, the MIS is used as a repository for spatial information gathered during the comprehensive resource assessment phase. Any one process can involve up to seventy layers of information being loaded into the system including, for example, tenure boundaries, marine habitat maps, marine wildlife distributions, marine sediment maps, oceanographic data and patterns of human usage. The MIS can be used to generate products such as constraint maps and a variety of statistics about the area of interest.

During advisory committee meetings, the information is projected from the computer onto a large screen using Landsat imagery and/or spatially rectified aerial photography backdrops. Layers are viewed and interrogated interactively, as appropriate to the decision-making process, in developing draft zoning schemes and reserve boundaries. The MIS can also be used to assess the degree of representativeness of different zoning scenarios. Hard copy map products of meeting outcomes can also be readily produced for public education and community consultation purposes to facilitate meaningful stakeholder feedback to the planning process.

The use of the MIS facilitates more effective planning by providing clarity and perspective to the decision-making process, minimising opportunities for issues to be overlooked, leveraging the collective local knowledge of the AC members by visual association and providing a

permanent record of the spatial component of the planning process. As a result, the process proceeds more efficiently.

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New signage for Marmion Marine Park

A series of educational signs about Marmion Marine Park are being installed on the seafront promenade bordering the marine park in Perth's northern suburbs. The promenade is used by thousands of people each day in summer for exercise and relaxation and, as such, provide a unique opportunity to increase public awareness and understanding about the role of marine parks in general and the many outstanding natural features of Marmion Marine Park in particular. Limestone plinths have been set into the wall and attractive anodized aluminium signs with key messages and images will be attached to each plinth. Approximately thirty signs will be erected along the entire length of the coastline of the marine park.

Staff from the Marine Conservation Branch and the Swan Coastal District conducted a community survey. The survey was undertaken prior to the signs being installed, to provide the baseline data needed to assess the effectiveness of the signs as a tool to raise public awareness. Approximately 150 people using the promenade were selected at random and asked a series of questions. The survey will be repeated during the summer months and the results will be analysed to determine if any changes in public awareness has occurred.

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The new signs along Marmion Marine Park are a hit with local community members.

MARINE AND COASTAL MANAGEMENT

Research focus on the Recherche

The Recherche Archipelago region is fast becoming a major focus for temperate marine scientific research in Western Australia with various research consortiums either currently undertaking or proposing to undertake research in the area. The area has long been known for its unique marine environment and is a priority candidate area for marine reservation in Western Australia.

In 1999, the Marine Conservation Branch (MCB) successfully applied for funding through the Marine Protected Areas Program of the Natural Heritage Trust (NHT). The project involved mapping the major marine habitats and the marine wildlife distributions of the area as well as developing a preliminary understanding of the physical oceanography of the region. This project has involved staff from the Department's MCB and South Coast Region and scientists from the University of Western Australia (UWA) and was directed at obtaining some of the information needed for the planning of a marine conservation reserve in the area.

Early this year, a consortium consisting of scientists from UWA with assistance from local commercial fishermen, tourism operators and community groups began a detailed three-year study of the marine benthic communities of the Recherche Archipelago. The project is funded by the Fisheries Research and Development Corporation and UWA and will build on the NHT-funded work done by the Department by examining the factors influencing the distributions of benthic marine communities in this area.

A number of projects administered under the Strategic Research Fund for the Marine Environment, a collaborative fund between CSIRO Marine Research and State Government, will have a focus on the south coast of Western Australia and, as such, will also contribute to the knowledge base of the region.

Recently, the Department assisted the Cooperative Research Centre for Coastal Zone, Estuary and Waterway Management (Coastal CRC) to prepare a supplementary funding bid for research and development into the use of acoustic technology for the identification and mapping of marine benthic habitats. Along with the Department, the list of collaborators includes Curtin University, UWA, Geoscience Australia and a number of local, national and international geosurvey companies.

The Western Australian Museum is organising the next International Marine Biological Workshop for February 2003 to be held in Esperance, Western Australia. Over a two-week period, over 20 local and international scientists will undertake intensive ecological, biological and taxonomical research in the nearshore waters of the Recherche

Archipelago further adding to the rapidly increasing knowledge base for the area.

The results that flow from the current and proposed marine research activities in the Recherche Archipelago will substantially boost our knowledge and, ultimately, the conservation of this unique and beautiful area of Australia.

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Hammerhead Point in the Recherche Archipelago.

National marine habitat classification

The Fisheries Research and Development Corporation (FRDC) and the National Oceans Office (NOO) invited the Department of Conservation and Land Management to attend a meeting in June 2002 in Canberra to plan for a proposed FRDC/NOO project that aims to develop a national standard marine habitat classification. The proposed outcome of the project is the adoption by all relevant State and Commonwealth jurisdictions of a common marine habitat classification leading to improved consistency in marine habitat mapping for Australia's coastal, shelf and offshore seabed resources.

Kevin Bancroft, from the Marine Conservation Branch, attended the June meeting on behalf of the Department. Over the last few years, Kevin has been coordinating a program to map the marine benthic habitats of both existing and proposed marine conservation reserves in Western Australia. As part of this program Kevin has developed a statewide marine benthic classification that will be considered during the development of the national classification scheme.

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Meeting with international marine mammal researchers at Monkey Mia

The Department of Conservation and Land Management's marine conservation program is very much dependent on external research providers. External research providers are often willing to assist the Department if they clearly understand what we do, why we do it and what our research needs are. To facilitate this understanding the Marine Conservation Branch (MCB) provides a central point of contact for the Department with external marine scientists. To this end Nick D'Adamo, from the MCB, met with visiting researchers at Monkey Mia in July 2002. Nick outlined the Department's statewide marine management framework, highlighting the roles of the Marine Parks and Reserves Authority, the Marine Parks and Reserves Scientific Advisory Committee and other relevant groups within the Department. Visiting scientists included Drs Janet Mann (Georgetown University) and Richard Connor (University of Massachusetts), who have been leading studies of dolphin behaviour in Shark Bay since the 1980s, along with doctoral students Lars Bejder (Dalhousie University), Michael Krutzen (University of New South Wales) and other associated undergraduate and graduate students. Details of the research being undertaken out of Monkey Mia can be found at www.monkeymiadolphins.org

The marine mammalian research being undertaken in Shark Bay by external scientists supports the conservation and management of the marine park's values and also the values of the Shark Bay World Heritage Property. The possibility that a representative of the international scientists based at Monkey Mia could contribute to a proposed departmental marine scientific advisory group was also raised and well received.

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Research being conducted from the top of Lars Bejder's tower in Monkey Mia. Image courtesy of Lars Bejder.



The Broome Bird Observatory assistant warden briefs the Broome police cadets on the Sroebim project prior to sampling on the mud. Dr Petra De Goeij and Tanya Compton from RNIQZ assist with the training. Courtesy of Grant Pearson.

A community-based, collaborative project in Roebuck Bay

The shoreline and inter-tidal mudflats of Roebuck Bay are one of the most important migratory shorebird feeding grounds and roosts in Australia. The area is a Ramsar site and is of international conservation significance and has also been identified as a candidate area for consideration as a marine conservation reserve under the CALM Act. Research over recent years has also discovered an unusually rich benthic in-fauna living in the mudflats.

In June this year, the Department of Conservation and Land Management facilitated a community-based conservation project that involved over 100 people gathering data in Roebuck Bay. The participation of so many of the local Broome community in the field exercises and education programs was possible because of funding received from Coastcare. The project has generated a groundswell of interest in the conservation of the inter-tidal marine habitats.

Overseas research institutions, stimulated by the project, are planning to continue research in consultation with local community groups such as Environs Kimberley and Broome Bird Observatory and indigenous groups such as Rubibi on selected aspects of the ecology of Roebuck Bay. In an effort to maintain this momentum, proposals to seek funding for a PhD project and a two-year monitoring/taxonomy project that will foster further community involvement in on-going monitoring and research in Roebuck Bay and Eighty-mile Beach, are being planned. The Department's Marine Community Monitoring Program will be working with local community groups in Broome as part of this project.

The results from this collaboration between local communities, researchers and managers have been published in a preliminary report, authored by many of the participants in the exercise, and on behalf of Environs Kimberley. The ability to produce a report of this quality so quickly after the conclusion of the fieldwork is evidence of the commitment of the participants to their task.

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OTHER NEWS

Monkey Mia dolphins

The Department of Conservation and Land Management has approved the provisioning (i.e. the feeding) of additional dolphins at Monkey Mia, subject to careful monitoring to gauge the behavioural and physiological response of the dolphins to feeding.

The approval follows advice from the Marine Parks and Reserves Authority (MPRA), Departmental staff and consultation with key stakeholders in the area. Dr Janet Mann of Georgetown University also briefed the Marine Parks and Reserves Authority on the issue. Dr Mann has been studying the dolphins of the area for 15 years and the focus of her studies have been mother-calf behaviour, communication, development and general ecology.

The Department and MPRA agreed that given the special significance of the Monkey Mia dolphin interaction and the history and age of the three dolphins currently being fed, the continuation of the practice is acceptable provided it is done in a manner that places priority on the welfare of the animals. History shows that without careful monitoring of artificial feeding, adverse physiological and health responses may occur and jeopardise the wellbeing of the dolphins.

Under the approval, the long-term feeding of dolphins will be based on (i) encouraging the daughters of the present group of three females and (ii) the current approved feeding protocols. The Department's decision means that Piccolo (nine years old), the daughter of one of the three dolphins that are currently fed, will be the first to be newly introduced into the provisioning regime. The feeding of Piccolo will be accompanied by a monitoring regime designed on the advice of international dolphin researchers, and conducted by them in collaboration with the Department. The long-term objective is to maintain the dolphin interaction experience to be sustainable in both an ecological and social sense.

The Department's decision reflects an acknowledgment that Monkey Mia is a significant tourism attraction for



Piccolo comes to the beach without being fed. She even brings her own fish sometimes.

Western Australia and that the dolphin experience plays a large part in this. It also duly acknowledges the valuable role that this nature-based tourism outlet has in educating the community more generally on the ecological values of the Shark Bay Marine Park and World Heritage Area.

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Inaugural marine conference

The Department's inaugural marine conference was held from 13 – 14 June 2002 at the Department's Operational Headquarters in Kensington. The purpose of the conference was to provide all Departmental staff involved in marine conservation and management with a forum to learn, share and exchange idea and information relating to marine conservation. The conference aimed to help foster a collaborative and co-operative spirit among 'marine' staff who are widely dispersed throughout the State.

The theme of the conference this year was *Building Understanding and Co-operation* both internally within the Department and externally in relation to stakeholders. Over 60 staff from the Kimberley, Pilbara, Midwest, Swan, South West and South Coast regions, attended the conference. The first day was dedicated to gaining an understanding of external stakeholder perspectives on the marine conservation reserve program. Speakers from the Western Australian Tourism Commission, the Department of Indigenous Affairs and peak bodies representing conservation, recreational fishing, commercial fishing, aquaculture and the petroleum industry provided their perspectives in relation to the management of the State's marine natural resources.

The second day focussed on the Department's operations, issues and future directions. Following a brief overview of the progress, current projects and issues in each coastal region, a series of interactive workshops were conducted in which all staff were invited to contribute their knowledge and expertise to the review of current practices, the assessment of operational procedures and the development of recommendations.

Attendees were very complimentary of the conference and acknowledged that it was an excellent opportunity for enhancing communication within the Department and with external stakeholders. Attendees were keen for the Departmental marine conference to become an annual event.

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Rescue diver course, 2002

A Departmental Rescue Diver Course was held during the 15 – 17 July 2002 and was run by the Departmental Diver Training Officer Alan Byrne. Participants included Kylie Ryan (Swan Coastal District), Christopher Mather (Swan Coastal District), Rick Dawson (Nature Protection Branch) and Tim Grubba (Marine Conservation Branch). Rescue dive skills were taught and tested in both the chilly winter waters of Mangles Bay and the more pleasant, heated surrounds of the Melville Aquatic Centre. Participants are now competent in oxygen administration, managing diver stress, victim rescue, missing diver incidents and diver maladies. The Rescue Diver Course is one of a number of Departmental courses available to ensure field staff can work confidently and safely within the marine environment and is a required step en-route to a staff member becoming a Departmental Dive Supervisor.

Contact: Alan Byrne, Co-ordinator, Organisational Learning & Development.
Email: alanby@calm.wa.gov.au



The Departmental Rescue Diver course.

Coast to Coast 2002 Conference

Solutions to keep Australia's coastal waterways, beaches, catchments, estuaries and harbours healthy were highlighted at this year's national Coast to Coast conference at Tweed Heads, NSW on 4-8 November 2002. The 'source to sea' conference theme focused on successes, problems and challenges facing coastal managers, including urban pressures and changes to the natural environment. A program of workshops, field trips, keynote speakers and a 'hypothetical' were organised to help examine the roles that government, industry, science and community groups can adopt to keep our coastal zone healthy.

Contact: Sally Brown, Conference Connections.
Email: sally.brown@uq.net.au



Marine conservation seminar series

The Marine Conservation Branch would like to thank the following presenters:

- **Claire Wright** from the Rottneest Island Authority who presented '*Walking on a tightrope: Sustainability issues facing Rottneest Island*' on 3 July.
- **Jim Burt** from English Nature who presented '*Marine Conservation in the UK: Recent developments*' on 17 July.
- **Nick D'Adamo** from the Marine Conservation Branch who presented '*Mixing and flushing by winds and the effect of seasonal salinity-temperature cycles in Cockburn Sound*' on 31 July.
- **Hugh Finn** from Murdoch University who presented '*Ecology of the bottlenose dolphins of Cockburn Sound and the Swan River*' on 14 August.
- **Francis Baronie** from Woodside Petroleum who presented '*Woodside's environmental studies, offshore North West Cape*' on 28 August.
- **Dr Neil Sumner** from the Department of Fisheries who presented '*Recreational Fishing for Pink Snapper in Shark Bay*' on 11 September.
- **Dr Lynnath Beckley** from Murdoch University who presented '*Location of marine protected areas: Some insights from fish distribution data and complementarity analysis*' on 25 September.
- **Professor Lindsay Collins** from Curtin University who presented '*Marine geology research on the Western Australian continental margin*' On 9 October.
- **Alan Pearce** from CSIRO, Marine Research who presented '*The Leeuwin Current and Perth coastal waters: Hillarys transect results*' on 23 October.
- **Professor Peter Newman** from the Department of the Premier and Cabinet who presented '*Marine issues and the state sustainability strategy*' on 6 November.
- **Colin Chalmers** from the Department of Fisheries who presented '*Community initiated fish habitat protection areas in WA*' on November 20.

Contact: Melissa Mazzella, Marine Conservation Branch.
Email: melissam@calm.wa.gov.au



STAFF NEWS

Staff profile

Karen Wheeler

Coming from a research background in seagrass physiology, ecology and rehabilitation, Karen has found the transition to marine community monitoring a welcome change. Karen joined the Marine Community Monitoring Program (MCMP) in June 2002 to assist with the implementation of the program and revision of the Marine Community Monitoring Manual ('the Manual'). As part of this process, Karen will be working with community groups, scientists and marine managers to trial and improve methods in the Manual and develop additional resource materials as required. The focus of the project is to enhance and improve the MCMP and Manual, and thereby provide effective tools for community monitoring.

Whilst the Manual provides an educational tool for many community and school groups, it will also enable collection of statistically relevant data to assist marine managers. In doing so, this will provide communities with a greater ownership of the management of 'their' coastal environment. Having worked with community groups in the past, and liaising with various community groups, scientists and coastal managers since June, Karen summarises the effectiveness of community monitoring and the Marine Community Monitoring Manual:

"I am constantly surprised at the enthusiasm shown by community groups towards monitoring the marine environment. Input from coastal managers and scientists is important when establishing programs, and when initiating community involvement to complement existing monitoring programs. Equally important is the need for marine monitoring to be relevant and FUN. Time consuming and laborious projects will not attract community support in the long-term. From a management perspective, data collection should be simple and structured, to ensure results are reproducible at a local and State-wide level. Where possible, emphasis should be placed on long-term monitoring to establish natural variability of ecological characteristics, thereby providing a baseline against which the consequences arising from human activity can be measured. The MCMP will provide a framework and methods to ensure the above considerations are conveyed to community groups interested in marine monitoring". For further information on the MCMP contact Karen at karenw@calm.wa.gov.au



Staff movements

Liesl Jonker accepted a two year contract in July to work for the United Nations Environment Program in Flores, Indonesia. Liesl has been with the MCB for approximately three years and during this time worked on a number of planning processes for proposed marine conservation reserves. We wish Liesl the best and look forward to seeing her back at MCB in two years.

Sue Osborne has moved on to the Shire of Serpentine/Jarrahdale to take up the Shire's position of Environmental Officer after many years of dedicated and spirited work with the Department. Sue was born and educated in England. After completing high school in Birmingham, she attended Exeter University to study Zoology, completing her degree with Honours. In 1979, Sue won a scholarship to study for a PhD in marine ecology at Heron Island on the Great Barrier Reef. Sue's doctoral study involved investigating mechanisms that maintain diversity in the encrusting communities beneath reef crest boulders on Heron Island Reef, Great Barrier Reef. After obtaining her doctorate, 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. Then in 1988, Sue moved to Western Australia, and back to the tropical coral reefs as the first Conservation Officer (Marine) of Ningaloo Marine Park.

Sue tackled the task of raising her first child in 1993 from Milyering in Cape Range National Park and her second child from 1995 in Busselton. Following this, she moved to Perth and worked briefly in the Department's Environmental Protection Branch. With the advent of the Marine Conservation Branch, Sue was re-engaged in her major interest of marine conservation as Community Liaison Officer in 1996. Sue led the Community Education, Liaison and Public Participation portfolios in the Branch. Sue's work in these areas were instrumental for the management of the Department's existing marine conservation reserves and for the planning of a number of proposed marine conservation reserves. Through her ability to apply a diverse range of skills in the ecological and social facets of marine conservation for the Department, Sue has made a major contribution, both in the formative and more recent chapters of marine conservation through reserves in Western Australia.

Sue's charming nature and unique blend of skills in marine ecology and education/public participation will be missed by her friends in the Marine Conservation Branch and the Department in general. We thank Sue for her dedicated and high quality work and wish her every success and happiness in her new role.

STAFF NEWS

Staff movements continued

Britt Anderson has left the Marine Conservation Branch to work on the STS Leeuwin II Eco Program. Britt played a major role in the development and installation of marine education signage for Marmion Marine Park.

Jacqui Jewell has returned to the Swan Coastal District after 12 months of working at Crawley and Wanneroo. Welcome back Jacqui.

Robyn Weir has left the Swan Coastal District and returned to the Finance Branch at Kensington. Robyn was Administration Assistant for nine months whilst Jacqui Jewell was away. Thank you Robyn.

Ben Lamb has been appointed as a Technical Officer for De Grey Mining LTD after eight months assisting with the GIS and mapping effort at the Department's Marine Conservation Branch. Ben worked on projects relating to many existing and proposed marine conservation reserves in WA and had significant input into the related development of some 30 datasets and many more GIS-based map products. Congratulations Ben and thanks for a job well done.

Jessica Meeuwig has joined the Branch as a marine planner on a two-year contract. She will be primarily involved in coordinating the planning process for the proposed Geographe Bay/Leeuwin-Naturaliste/Hardy Inlet marine conservation reserve, facilitating the establishment of the advisory committee and the development of the indicative management plan.

Canadian-born, Jessica has hopefully escaped snow (and snow shovels) permanently. Broad interests have led her to pursue a B.Sc in tropical marine ecology, a Master's degree in Environmental Policy and a PhD in temperate estuarine ecology. Prior to joining the MCB, Jessica worked for an international marine conservation organisation in the Philippines and Vietnam. Still escaping snow, she was involved in community-based projects that integrated marine protected areas and fisheries management to conserve overexploited reef fish communities

Stuart Field has joined the Branch as a marine planner on a one-year contract. Stuart completed a Bachelor of Science (Marine Biology) degree at James Cook University

in Townsville and continued his studies with a Post-Graduate Diploma at the University of Western Australia. His thesis investigated the impacts of tributyl tin (an anti-fouling paint ingredient) on the inter-tidal gastropod, *Thais orbita*, in Perth's coastal waters. After completing his thesis in 1993 Stuart worked under contract for the DCLM, Department of Fisheries and the Department of Environmental Protection. He took up a position with the Australian Institute of Marine Science in Western Australia in 1995. In this capacity he was engaged on coral and fish research on most of the tropical reefs in Western Australia.

In 1998 Stuart took up a position as a Research Associate with the University of Newcastle in England to investigate the recovery of coral reef communities following ship groundings in the Red Sea, a common problem in this region. Stuart is currently finalising his doctoral thesis with the University of Newcastle.

Throughout his career he has maintained an active interest in marine management issues and is looking forward to contributing his experience to the team at the Marine Conservation Branch.

Previous issues of marine conservation matters

Previous issues of Marine Conservation Matters can be found at:

www.naturebase.net/national_parks/marine_splash.html



Issue 7 - May 2002



Issue 8 - July 2002

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 Melissa Mazzella at the Marine Conservation Branch. Ph: (08) 9336 0100, Fax: (08) 9430 5408 or email: melissam@calm.wa.gov.au