



Department of
Fisheries



Patrol 3

Montebellos/Barrow Island Marine Conservation

Reserves

7th August- 12th August 2006

*SFMO C Wadley
SFMO K Saunders*

2006

INTRODUCTION

The scheduled 5-day Department of Fisheries (DoF) patrol to the Montebellos/Barrow Islands Marine Reserves (MBIMR) group by Karratha staff was made available as an opportunity to the Department of Environment and Conservation (DEC) Marine Science Program team to visit the area. The patrol enabled the DEC team to assess the logistical and technical/scientific issues relating to the establishment of a long-term benthic community monitoring program (LTBCMP) in the MBIMR. An inspection of the DEC accommodation facility on Hermite Island was also planned during the visit.

Although major field work by the DEC team is scheduled for late 2006 early 2007, this opportunity will permit a broader understanding of the requirements for such larger scale work. A testing of new marine/photographic benthic monitoring equipment was carried out, as were different styles of field monitoring methods. This voyage will also assist DEC staff to familiarise themselves with the PV Walcott as the platform for future monitoring work.

The DEC team consisted of Kevin Bancroft (Project Leader), Dr Suzanne Long (Scientific Co-ordinator), Shannon Armstrong and Dr Chris Simpson (Field Support).

In addition to the aforementioned investigation by DEC, the patrol also offered the opportunity to DoF personnel (SFMO Saunders and Wadley) to gain skills and an understanding of the sampling methods and techniques used by the DEC. This experience would enable DoF personnel to gather data during their regular future visits to the area thereby offering more regular data collection for the DEC team than would normally be available. Such ongoing collaborative effort will result in higher quality data and management outcomes for the MBIMR through a more realistic and efficient utilisation of Government resources.

The work by DEC and DoF during this patrol involved SCUBA and free diving. All divers, including the DEC team operated within the guidelines of the DoF Diving Policy with SFMO Wadley operating as the Dive Supervisor and SFMO Saunders as his Deputy. A Departmental Dive Plan was lodged with the Divisional Diving Officer (DDO) prior to departure.

OPERATIONS

On Monday 8th July 2006, DEC Staff flew in from Perth to Join Fisheries Patrol Vessel Walcott. SFMO's Saunders and Wadley drove from Karratha, arriving at Exmouth at approximately 1630 hrs. All personnel boarded the PV Walcott at Exmouth Marina and prepared equipment, loaded stores and briefly discussed operations for the following 5 days. Some liaison was carried out with Exmouth DoF personnel who also assisted in the transport of staff around Exmouth.

The vessel was in a state of readiness by evening with a planned departure of 0500 on Tuesday the 9th. Departing into a moderate to heavy swell, PV Walcott cleared Exmouth Marina at 0515 hrs and arrived off Barrow Island mid morning on the 9th. A visual inspection of the coastline adjacent to the Barrow Island Marine Park (BIMP) was carried out then PV Walcott steamed to the anchorage inside Stevenson's Channel.

Following lunch team members' snorkelled over the coral assemblages adjacent to the anchorage. It was decided that this site (*Coral Gardens*) would be ideal for a video transit to monitor the establishment of *Drupella cornis* a small predatory marine snail.

Over the course of the following 4 days the collaborative team of DoF and DEC staff carried out ground truthing of a wide range of sites around the Montebellos group. Using aerial photographs DEC staff pinpointed locations that needed to be verified with regard to habitat type, benthic cover and to certain extent marine life. This involved calculating a lat and long position, entering this into the handheld GPS unit and then travelling to individual sites. Once at a particular location team members would enter the water and investigate the seabed for the above factors. Video footage and still photographs were taken at sites of interest.

This process ensured that over time staff looking at aerial photographs could better translate what the seabed actually contained or was made up of. It also gave team members an intimate knowledge of certain areas surround the Montebellos group. DoF staff were also able to better understand what type of data and information was required for DEC staff in the future. It became clear that in the future DoF staff visiting the Montebellos area would be able to update DEC data on an ongoing basis and also establish knowledge of new areas identified as being of interest to DEC planners and marine monitoring staff.

This collaborative process will enable a greater level of understanding through regular data collection, ground truthing and sampling than can be achieved by DEC staff operating alone. DoF staff will be present in the MBIMR at a much greater level than in the past as part of fisheries, marine safety and marine reserves management taskings. At the same time data can be collected for DEC marine monitoring staff. This represents significant increases in efficiency with respect to utilisation of government resources in the region. Over time regular visitation by DoF staff will translate into significant levels of local knowledge and understanding of both the physical and marine landscape of the island groups and the natural processes at work. This outcome has already proven valuable with DoF staff being able to guide DEC staff to areas and sites of significant interest discovered during past DoF patrols over the past 6 months and previously unknown to DEC staff.

WHAT DID WE LEARN

The DEC work during this patrol was carried out at the same time as the routine tasks of DoF staff. A number of private vessels were boarded and contacts were made with visiting recreational fishers, cruising yachtsmen and passengers of commercial charter voyages. Contact was also made with the manager and staff of the Morgan Pearl Farm operation, as was a visit to the "Montebellos Safaris" houseboat operation in Claret Bay. Subsequently activities involving Fisheries compliance and education, Marine Safety compliance and education, DEC compliance and education and DEC Marine Monitoring were all carried out during the one patrol.

This patrol has clearly highlighted the benefits of collaboration between DoF and DEC personnel. The synergy from the joint efforts in terms of field knowledge and monitoring expertise justifies any effort or costs involved in the organisation of such work.

Considerable discussion ensued on the potential of future projects for the MBIMR and all staff agreed that such collaboration would enhance many aspects of management of the area. These benefits and skills will of course flow-on to other marine reserves such as Dampier Archipelago and Rowley Shoals.

For example, future planning and design for a patrol vessel for the MBIMR should take into account the direct needs for all agencies involved in the management and protection of the area. Equipped with an understanding of marine monitoring needs DoF personnel identified equipment and systems that could be included in any new vessel at the planning stage. Data regarding levels and types of visitation can be included in DoF's routine compliance recording software aboard the patrol vessel. GIS software should be included in the vessels computing suite so that information can be collected and presented in a format that suits DoF and DEC needs and processes. This would enable DoF to collect valuable data on a routine basis during the normal course of activities at the MBIMR.

Overall Patrol 3 to the MBIMR achieved considerable advancement towards increased quality of management for the area. In terms of understanding each other's roles and taskings, both DoF and DEC staff have made advances. DoF staff will be in a much better position to provide data and other types of field related activities to DEC in the future. This will be particularly evident once Karratha DoF staff have access to a permanent vessel that will facilitate regular patrols to the MBIR. Knowledge and experience gained on such collaborative patrols and voyages such as this will ensure that a purpose built vessel may be constructed to carry out the unique array of taskings required by modern management and compliance of offshore islands and reserves.

Following 5 productive days at the MBIMR PV Walcott departed and steamed to Exmouth, arriving there late on afternoon of Friday 12th July 2006.

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