

Marine Protected Areas: the NSW experience

Tim Anderson (2005) 'Marine protected areas: the NSW experience', *Waves*, Vol 11, No 2, Spring, p.28

The development of Marine Protected Areas (MPAs) in New South Wales over the past decade has involved heightened campaigns and substantial changes in management structures. NSW Fisheries was joined by the National Parks and Wildlife Service (NPWS) and the Premier's Department, as the responsible state agencies, and conservation groups helped drive public debate over marine conservation. The principal fields of MPA development occurred in the state's new marine park system, in extensions of Fisheries' aquatic reserves, and in habitat protection areas for the critically endangered Grey Nurse shark. Despite the new fields of development, progress was often slow and disappointing.

The state's marine park system

The 1995 Labor Party promise to establish a "comprehensive system of marine parks" saw its way through to a weak *Marine Parks Act*, in 1997. Unlike National Parks on the land, these areas were not dedicated to the conservation of animal and plant life, but rather to support a "multiple use" plan, of which full protection (IUCN category 1) would be one small part. After a battle between government agencies, the management of these parks was given over to a triumvirate of Fisheries (the marine resource agency), the National Parks and Wildlife Service (the conservation agency) and the Premier's Department. A handful of new staff were appointed to the new Marine Parks Authority.

The first two marine parks were declared fairly quickly, but under the new law no effective protection comes into place until zoning and management plans are declared. It was late 2002 before the Jervis Bay Marine Park (JBMP) and the Solitary Islands Marine Park (SIMP) had such a plan. This six year delay shows how glacial developments were, in the face of government apprehensions over the reactions of fishing lobbies.

What became Jervis Bay Marine Park had been the site of earlier failed conservation plans; so marine planing was not new to the area. Further, in the 1970s and 1980s Jervis Bay had survived plans for a nuclear power plant, a steel mill and a naval munitions dump. When all these had failed, a state and a commonwealth national park (the latter with a marine extension) were established at the north and south of the bay. Unlike the state marine park, both land national parks included Aboriginal joint management. At the end of the process, the fully protected zones comprised about 20% of the park (4,253 ha), including rocky reef, seagrass and other habitat areas. This plan is to be reviewed after five years. (MPA 2005).

Much of what became the Solitary Islands Marine Park had been a marine reserve since the early 1990s. So once again there was second round of planing and zoning, which aroused concerns with commercial fishing interests. A buyout of some fishing licenses in the region was eventually arranged and by 2002 sanctuary zones came to account for about 12 percent (8,650 ha) of the SIMP.

Lord Howe Island Marine Park - under its own resident-dominated management system and subject of a World Heritage listing - became the state's third marine park. Its zoning plan incorporated 27% (12,500 ha) of the park in sanctuary zones. The fourth candidate, Cape Byron Marine Park, has a draft plan which foreshadows 27.5% (6,080 ha) in sanctuary zones

(MPA 2005). This park also includes a previously-declared, small marine reserve at Julian Rocks. Other marine parks have been floated for each of state's six marine bioregions.

The slow progress involved in zoning these marine parks caused a great deal of uncertainty and suspicion, although the outcomes in terms of fully protected areas were in many respects historical breakthroughs. Nevertheless, the complex nature of these 'multiple use' plans will certainly make education and compliance difficult.

Aquatic reserves

The competition for control of marine parks led to important changes within NSW Fisheries. Traditionally a resource and harvesting agency, Fisheries invented for itself a new biodiversity management role. It argued its marine expertise in marine parks, developed new plans for aquatic reserves and invited the state's peak conservation body, the Nature Conservation Council (NCC) to provide representatives for a range of new advisory committees and councils. However it never really shook its resource management legacy.

Prior to the Marine Parks Act, Fisheries had declared several aquatic reserves, with mixed levels of protection. The largest reserve was at the Solitary Islands. The development of new aquatic reserves ran in parallel with the marine parks process, but produced very poor results. A reserve at Cook Island (Tweed Heads) was declared in 1998, but as at 2005 still lacked a zoning plan. Six aquatic reserves and several more small inter-tidal reserves were declared in 2002, but only one of these included a sanctuary zone. Significantly, that new reserve (Cabbage Tree Bay at Manly, in Sydney) gained its status because of a strong campaign by local conservation groups.

Fisheries' more systematic approach to aquatic reserves seemed to have systematically excluded full protection. In answer to its own question "What can I do in an aquatic reserve?", the agency could only respond "The type of protection varies within each reserve ... see the details on each reserve". (NSW Fisheries 2005). Fisheries maintained its tradition of regulating particular extractive activities, but resisted integral ecosystem protection.

Grey nurse shark reserves

Fisheries' achievement in the marine parks struggle meant that it assumed responsibility for marine endangered species. This was put to the test with the discovery, from a detailed survey (Otway and Parker 2000), that the Grey Nurse shark population was down to around 300, and so close to extinction. The shark was listed as endangered in August 2000 and 'critically endangered' in 2002.

In March 2001 a Fisheries selected advisory committee on the Grey Nurse unanimously recommended full sanctuary protection for the 10 or 12 identified aggregation areas for the Grey Nurse. This advice was ignored. Instead, only certain types of fishing were prohibited in the aggregation areas. Sharks continued to die. After public protest, Fisheries reviewed its measures, recognising that accidental hooking was a major threatening process (NSW Fisheries 2003). However the bait and tackle industry's opposition to no-fishing zones seems to have blocked further state government action. In 2005 the NSW Minister for Fisheries effectively abandoned the wild Grey Nurse population, declaring instead plans for a captive breeding program and a scuba diving fee to fund this experiment (McDonald 2005). Conservation groups continue to press for sanctuary zones, with a 1500m radius, in

aggregation areas (NPA 2005). In contrast to state government's paralysis on this issue, the federal government in 2004 proposed a 1000m radius sanctuary zone (IUCN 1a) around 3 pinnacles at Cod Grounds, a Grey Nurse aggregation zone outside the 3 mile limit of NSW waters (DEH 2004).

Public education and campaigning

In the last ten years there has been increased public education and campaigning on marine reserves, notably from the National Parks Association, the Nature Conservation Council, the Australian Marine Conservation Society, the Marine and Coastal Community Network, Coast Care, local conservation groups, and scuba diving clubs and operators. They have called for "20% of the coastline" and of state's waters to be fully protected in 'no take' reserves (NCC 2002), and have made use of the overwhelming scientific support for the value of fully protected marine reserves, both for biodiversity conservation and as support for fish stocks (AMS 2001; Ballantine 1991; Buxton 1996; Palumbi 2003; Roberts et al 1995, 2003).

References

- AMSA (2001) 'Over 100 of Australia's Leading Marine Scientists Back Victoria's Proposals For Marine National Parks', Australian Marine Sciences Association (Victoria), press release, 29 March
- Ballantine, Bill (1991) *Marine Reserves for New Zealand*, University of Auckland, Leigh Laboratory Bulletin No 25, October
- Buxton, Colin (1996) 'The Role of Marine Protected Areas in the Management of Reef Fish: A South African Example' in Richard Thackway (Ed) *Developing Australia's Representative System of Marine Protected Areas*, Ocean rescue 2000 Workshop Series, proceedings of a technical meeting, Adelaide, 22-23 April 1996
- DEH (2004) 'Cod Grounds Marine Reserve Proposal', Department of the Environment and Heritage, Canberra, <http://www.deh.gov.au/coasts/mpa/cod-grounds/>
- McDonald, Ian (2005) 'Scuba diving fee will boost protection measures for grey nurse shark', Minister for Fisheries, Sydney, press release, June 20
- MPA NSW (2005) Marine Parks Authority of NSW, www.mpa.nsw.gov.au
- NCC (2002) Public appeal kickstarts NCC Marine Parks Campaign, Nature Conservation Council of NSW, 5 March, <http://nccnsw.org.au/ncc/projects/NCCBulletins/mpcampaign.html>
- NPA (2005) 'Reasons for 1500m no-take sanctuaries', National Parks Association of NSW, http://www.npansw.org.au/web/conservation/marine/gns_info.htm
- NSW Fisheries (2003) Discussion Paper for Grey Nurse Shark Protection, Sydney, July
- NSW Fisheries (2005) Aquatic Reserves, www.fisheries.nsw.gov.au/marine_protected_areas/
- Otway, Nick and Pam Parker (2000) The biology, ecology, distribution, abundance and identification of marine protected areas for the conservation of threatened Grey Nurse Sharks in south east Australian waters, NSW Fisheries, Nelson Bay, February
- Palumbi, Stephen (2003) 'Marine Reserves: A Tool for Ecosystem Management and Conservation', Pew Oceans Commission, <http://www.pewoceans.org>
- Roberts, Callum; William Ballantine, Colin Buxton, Paul Dayton, Larry Crowder, Wally Milon, Michael Orbach, Daniel Pauly and Joel Trexler (1995) NOAA Technical Memorandum MNFS-SEFSC-376, *Review of the Use of Marine Fishery Reserves in the US Southeastern Atlantic*, Symposium at the American Fisheries Society 125th annual meeting, Tampa, Florida
- Roberts, C. M., Bohnsack, J. A., Gell, F., Hawkins, J. P. & Goodridge, R (2001), 'Effects of marine reserves on adjacent fisheries', *Science*, 294, 1920 -1923, 30 November