



Australian Government

Department of the Environment,
Water, Heritage and the Arts

Director of National Parks

The Solitary Islands Marine Reserve (Commonwealth Waters) Management Plan 2001 Review

Introduction

The Solitary Islands Marine Reserve (Commonwealth Waters)

The Solitary Islands Marine Reserve (Commonwealth Waters) (the Reserve) is a reserve under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The Reserve adjoins the seaward boundary of the New South Wales Solitary Islands Marine Park (the Park) and extends to the 50 metre depth contour. The Park is 710 square kilometres in area with the Reserve adding a further 160 square kilometres.

The Solitary Islands Marine Park (State Waters)

The New South Wales Solitary Islands Marine Park was established by the New South Wales Government on 2 January 1998 and is managed under the *New South Wales Marine Parks Act 1997*. It stretches over 75 km from Muttonbird Island in the south to the Sandon River and Plover Island in the north. The Park incorporates estuaries to their tidal limit, foreshores to the mean high water mark and extends offshore to the State waters 3 nautical mile boundary.

The Commonwealth and New South Wales Reviews

The *Solitary Islands Marine Reserve (Commonwealth Waters) Management Plan* sets out the management objectives for the Reserve. It came into effect in April 2001 and will expire on **4 April 2008**. The Management Plan is currently under review to assess its effectiveness in achieving its objectives and goals.

At the same time, the New South Wales Government is reviewing the zoning in the Solitary Islands Marine Park to evaluate its effectiveness in meeting the objects of the *New South Wales Marine Parks Act 1997*. Joint community consultation for both New South Wales and Commonwealth Reviews will be conducted and the input from stakeholders and the wider community together with scientific and socio-economic data will be used to identify any issues and inform future management arrangements.

Conservation Values of the Reserve

The Reserve is of great conservation significance as it contains a relatively undisturbed, distinct and species-rich ecosystem associated with open ocean, subtidal reef and soft substrate habitats occurring in Commonwealth waters off the north coast of New South Wales. Of particular significance is Pimpernel Rock, a submerged pinnacle that provides important habitat for the vulnerable grey nurse shark (*Carcharias taurus*), marine turtles and schools of pelagic fish. The Reserve also helps protect the complex mix of marine life, diverse corals and

algal communities found around the islands and smaller rocky outcrops of the adjoining Park. Also significant is the diversity and abundance of hard reef-building corals at this southerly latitude.

The Reserve has been managed in accordance with the *Solitary Islands Marine Reserve (Commonwealth Waters) Management Plan 2001*. The strategic objectives of the Plan set out what is being protected and managed within the Reserve. The Plan also sets out the management strategies for achieving those objectives.

This Issues Paper outlines some of the matters we consider to be important in reviewing the Management Plan to assist you in having your say. We would also be interested to hear about any other issues you consider important.

Strategic Objectives of the Reserve Management Plan 2001

The strategic objectives of the Reserve Management Plan are:

- protect the conservation values of the Reserve from human-induced damage;
- protect the benthic communities of pinnacle reef habitat and associated sensitive marine species and established ecological processes at Pimpernel Rock;
- protect a representative sample of the whole reef, including soft substrate sediments and subtidal reef habitats, deep-water biotic communities and predator-prey assemblages, mammals and seabirds;
- protect key habitats for listed threatened species such as grey nurse sharks (*Carcharius taurus*), and cetaceans, and implement management arrangements that are consistent with Species Recovery Plans under the EPBC Act;
- manage activities that can impact upon marine wildlife especially cetaceans and other listed threatened species, and on sensitive marine habitats;
- allow for recreational and commercial activities to the extent they do not conflict with the objectives and are consistent with the principles of ecologically sustainable development;
- develop management arrangements for the Reserve consistent with and complementary to the management of the State Park as far as possible; and
- manage the Reserve as part of a comprehensive, adequate and representative system of marine protected areas to contribute to the long-term ecological viability of marine and estuarine systems.

Zoning

A focus for the Reserve is to protect the conservation values of the area. To assist in protecting its values and allowing ongoing recreational, commercial and scientific activity, the Reserve has been divided into three Zones:

- General Use Zone where ecologically sustainable activities are unrestricted;
- Habitat Protection Zone where some commercial and recreational activities including fishing are allowed under permit; and
- Sanctuary Zone which is a no-take area primarily to protect the pinnacle benthic communities of Pimpernel Rock, established ecological processes and associated sensitive marine species such as grey nurse sharks.

Each Zone has a range of activities that are allowed, require a permit or are prohibited (Table 1. Management Arrangements for Activities in the Reserve).

Table 1. Management Arrangements for Activities in the Reserve

Activity	General Use Zone	Habitat Protection Zone	Sanctuary Zone
General Access	✓	✓	✓
Commercial Activities			
Fishing*	✓	P	✗
Collecting	✓	✓	✗
Filming and Photography	P	P	P
Tourism and Charters	P	P	P
Other Commercial Activities	P	P	P
Recreational Activities			
SCUBA diving & snorkelling	✓	✓	P
Fishing (including collecting)*	✓	✓	✗
Scientific Research	P	P	P
✓ - allowed in zone ✗ - not allowed in zone P - permit required * All fishing subject to further conditions. # Limited collecting allowed in the Habitat Protection Zone.			

The Reserve Management Plan recommends complementary zoning arrangements in State and Commonwealth Waters. The results of both Reviews are expected to provide the jurisdictions with information to adjust zoning in the Reserve and Park if warranted.

We are interested in your thoughts on how the zoning works within the Reserve.

We are interested in your opinions on how the Permit system has worked and how it may be improved.

What have been your experiences as a visitor to the Reserve?

How could this be improved?

Permits and Visitor Management

The main form of regulatory activity within the Reserve is the issuing of Permits to allow visitors to carry out various activities in different parts of the Reserve.

The Permit system has enabled sustainable activities to continue within Reserve by placing certain conditions on activities. For example, SCUBA diving is permitted in the Sanctuary Zone but divers must adhere to the Codes of Practice for Anchoring and for Diving with Grey Nurse Sharks. The Codes help minimise damage to the reef around Pimpernel Rock and minimise interference with grey nurse sharks at one of their aggregation sites.

For commercial tours, Permit holders must abide by a range of conditions which protect the environment and ensure visitors enjoy a safe and informative visit.

The Permit system has also enabled managers to keep track of activity in the Zones. The number of Permits issued annually has remained constant over the period of the plan. Patrols and inspections have indicated that the level of compliance with Permit conditions is high, although there have been some exceptions.

Educational and interpretative material (signs and brochures) have been used in conjunction with Permit conditions and Codes of Conduct to inform visitors and users about the values of the Reserve and to promote appropriate behaviour.

Table 2. Permits issued 2001-2008

Solitary Islands Marine Reserve Permits 2001 – 2008				
	Commercial Fishing	Commercial Tourism	Dive permits (Pimpernel Rock)	Total Permits
Total permits 2001-2008	62	49	34	145
Average number per year	9	7	5	21

Research and Monitoring

To properly manage the Reserve into the future a range of research and monitoring activities have been undertaken. These activities are designed to provide information about species and habitats that were previously unknown or uncertain and to measure what changes may be occurring as a result of the different types of uses within the area.

Details on the research carried out in the Reserve and the Park is available in the New South Wales Marine Parks Authority document *Summary Of Research In The Solitary Islands And Jervis Bay Marine Parks 2002 – 2007* available at www.mpa.nsw.gov.au

Research particularly relevant to the Reserve is set out below.

Grey Nurse Shark

Since 2001 there has been an ongoing project to monitor the critically endangered grey nurse shark (*Carcharias taurus*), including its movement patterns and its habitat. Grey nurse shark habitat is routinely monitored to assist in determining if and how habitat changes affect shark numbers and habits. The information gathered in the Reserve helps to further quantify the distribution and abundance of grey nurse shark along the entire New South Wales coast, identifies key aggregation sites (critical habitat) and identifies the issues that need to be addressed in conserving this species.

Baseline Data Collection

Eleven square kilometres of sonar mapping (swath mapping) in the Reserve mapped bottom types and provided an understanding of the extent of different types of habitat. This mapping has identified extensive areas of reef of varying degrees of complexity. The data collected forms the basis for further investigation of habitat type and extent and will assist in the design of more detailed ecological, biological and environmental studies.

A survey of the benthic environment and investigation of fish-habitat relationships within the Reserve has informed management on the baseline state of the Reserve. This has assisted with providing a comparison for ongoing monitoring activities which may detect changes within the Reserve.

A major cause of damage and change within the Reserve is anchoring. A study identified distinctive physical damage to corals and other reef habitat caused by anchoring. The study also identified areas that are particularly sensitive to anchor damage and those areas that may be suitable for anchoring and this has been included in a Code of Conduct for Anchoring.

An assessment of the use of the Reserve by commercial fishers was conducted to describe the number and types of commercial activity undertaken in the Reserve and surrounding areas.

What sorts of research do you think needs to be undertaken in the Reserve?

Co-operative Management

The Reserve and the Park are managed co-operatively by the Commonwealth and New South Wales Governments. Through an Annual Business Agreement, the New South Wales Marine Parks Authority (NSW MPA) is responsible for the day to day management of the Park and Reserve.

The Reserve Management Plan was developed to be complementary where possible with the management objectives of the Park. The Commonwealth and the New South Wales Governments must meet the statutory obligations of the laws under which they operate. Where the Commonwealth is required to develop a management plan for each marine reserve, the New South Wales Government is required to have a zoning plan.

The joint processes being undertaken by the Commonwealth for the Reserve Management Plan Review and the New South Wales Park Zoning Review is indicative of the approach to co-operative management of this area.

We would welcome your comments on the management arrangements.

Fishing in the Reserve

Fishing, both recreational and commercial is a major management issue for the Reserve and a major drawcard for Reserve users. An assessment of commercial fishing in the Reserve completed in 2007 indicates that there has been a decline in the numbers of primary fishery species such as kingfish, snapper and silver trevally.

Some fishing techniques used in the area have the potential to adversely affect the survival of the grey nurse shark. A number of operational measures to maintain sustainability of the grey nurse shark are already in place under the Reserve Management Plan, such as the total prohibition of fishing in the Sanctuary Zone around Pimpnel Rock and the restrictions on the use of certain types of gear in the Habitat Protection Zone.

In July 2006 in response to fishing incidents in the Sanctuary Zone a Determination was issued by the Director of National Parks to ensure compliance with the rules. This prohibited access by all persons at all times to the Sanctuary Zone, except for persons holding a Permit, on a vessel with a Permit holder, or, on a vessel transiting through the Zone.

There is some evidence that the types of fishing in the Reserve have changed during the life of the Plan with an increase in effort in the shark fishery. During the life of the Plan the Government made a commitment to the development of a Marine Bioregional Plan in the East Region by 2010, which will have implications for the management of Commonwealth reserves in this area. The results of this Review will be considered within this context.

As part of this assessment we would welcome your views on the management of fishing in the Reserve.

Pimpernel Rock

Pimpernel Rock is the most significant feature in the Reserve, forming the focus of the Sanctuary Zone.

Pimpernel Rock is a submerged pinnacle that rises from the seabed to within a few metres of the surface and is critical habitat for the endangered grey nurse shark and is also popular with SCUBA divers due to its unique seabed communities.

This offshore area can be particularly dangerous and visitors to the area need to take extreme care. Visitors also have the capacity to disturb the wildlife and to damage the sea floor communities by anchor damage and touching and breakage of coral. Codes of Conduct for Diving with Grey Nurse Sharks and Anchoring are part of the Permit conditions for those visiting the area.

We conduct regular patrols to the area with a view to ensuring visitors are complying with Permit conditions and codes of conduct at all times.

We are interested in your views on how Pimpernel Rock and the Sanctuary Zone are managed.

How can I comment?

Public comments on the review of the Reserve Management Plan will be open between **31 March and 30 May 2008**.

To have your say, simply return your comments on the form provided in the enclosed reply-paid envelope or write to:

Solitary Islands Marine Reserve Manager
Marine Protected Areas Management South
Department of the Environment, Water,
Heritage and the Arts
GPO Box 787
Canberra ACT 2601

or

Email your comments to: mpa@environment.gov.au

Where can I find further information?

For more information on the Reserve or to read the management plan go to <http://www.environment.gov.au/coasts/mpa/solitary>

For further assistance please contact the Solitary Islands Marine Reserve Manager on:

Email: mpa@environment.gov.au

Phone: 02 6274 1111

Fax: 02 6274 1771

Solitary Islands Marine Reserve (Commonwealth Waters)

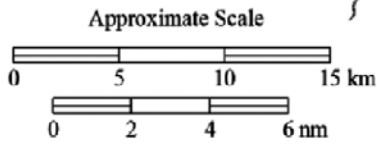
Legend:

Commonwealth Reserve

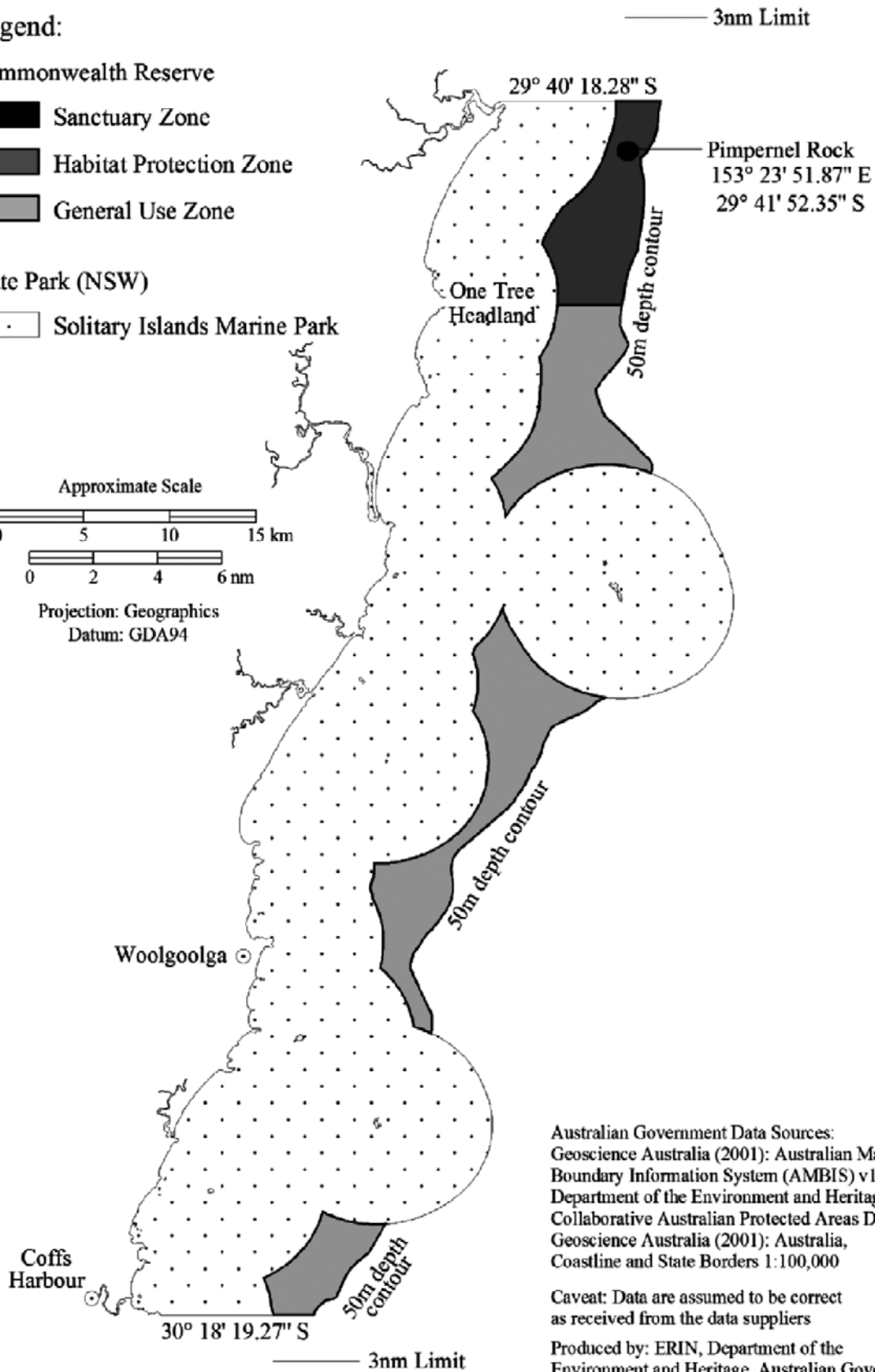
- Sanctuary Zone
- Habitat Protection Zone
- General Use Zone

State Park (NSW)

- Solitary Islands Marine Park



Projection: Geographics
Datum: GDA94



Australian Government Data Sources:
Geoscience Australia (2001): Australian Maritime Boundary Information System (AMBIS) v1.1
Department of the Environment and Heritage (2003): Collaborative Australian Protected Areas Dataset (CAPAD)
Geoscience Australia (2001): Australia, Coastline and State Borders 1:100,000

Caveat: Data are assumed to be correct as received from the data suppliers

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