AMSA Position Statement on Marine Protected Areas

April 2002

1. Preamble

1.1 Following Australia's ratification of the UN Convention on the Law of the Sea in 1994 the Nation assumed responsibility for an area of ocean nearly twice the size of mainland Australia. Only a small proportion (less than 5%) of this ocean territory has been mapped and an even smaller fraction of its biological communities described.

1.2 Australia's sovereignty over what is one of the three largest marine territories of any nation carries with it both benefits and obligations. While we have the right to develop its resources we are also charged with the responsibility of doing so in an environmentally sustainable manner.

1.3 One management strategy which has been proposed by the Commonwealth Government for conservation of marine ecosystems is the development of a national representative system of Marine Protected Areas (MPA's).

1.4 Progressive implementation of MPA's by Commonwealth, State and Territory governments has normally been accompanied by a community consultation process. During these consultations a wide range of views on the nature and merits of MPA's have been expressed by stakeholders. Plans to implement MPA's are sometimes controversial.

1.5 This paper has been produced in order to make clear the general views of the Australian Marine Sciences Association in these important debates.

2. Marine Science and MPA's

2.1 AMSA is Australia's largest professional association of marine scientists with over 900 members nationally. The AMSA mission is:

"AMSA - Advancing Marine Science in Australia".

AMSA's objectives are to:

- promote, develop and assist in the study of all branches of marine science in Australia;
- provide for the exchange of information and ideas between those concerned with marine science; and
- engage in public debate where we have specialist knowledge.

2.2 Marine scientists have an interest in MPA's for a variety of reasons including:

- some marine scientists are users of marine areas that are (or may be) subjected to conservation measures;
- certain branches of marine science are directly concerned with marine conservation;
- certain branches of marine science are concerned with the consequences of marine conservation practices on other human uses of the marine environment; and
- some marine scientists supply information used in decision-making for management of conservation areas.

2.3 AMSA believes that marine scientists:

- are legitimate users of marine protected areas; and
- have an important role to play in the planning and management of marine protected areas

3. Australia's Marine Environment

3.1 Australia's marine environment is at risk from human activities such as:

- alteration of catchments - with consequent changes to the quality and quantity of water flowing to the sea
- sewage and other waste disposal to oceans
- commercial and recreational fishing
- off-shore oil exploration and extraction
- coastal and estuarine developments such as port construction and residential development
- shipping and recreational boating
- introduction of exotic marine species.

Their relative significance can be determined by location-specific assessments.

3.2 Australia's marine flora and fauna encompasses a very broad range of latitudes and includes tropical, temperate and polar ecosystems. These ecosystems are:

- highly diverse when compared to other places in the world
- highly endemic
- still poorly documented.

3.3 Australia's marine biota also belong to three ocean systems and include assemblages such as the Indo-West Pacific

marine fauna, which is of taxonomic and evolutionary significance, and the highly productive Antarctic seas.

3.4 AMSA believes that there exist places deserving of protection for future generations through precautionary management, not just management according to the principles of ecologically sustainable development.

4. MPA's as a Conservation Tool

4.1 Terrestrial National Parks are widely accepted as critical for protection of land-based ecosystems. AMSA considers that an equivalent level of protection is appropriate for Australia's marine environment. An increasing number of international scientists are also advocating the creation of marine reserves to reverse declines in the health of marine ecosystems worldwide.

4.2 AMSA recognizes that marine parks have been declared in the territorial waters of most States and Territories and in Australia's Exclusive Economic Zone by the Commonwealth Government. Currently the size and management of some of these reserves are under review.

4.3 MPA's can have a variety of management regimes – from reserves in which many human activities are prohibited to multiple-use reserves in which certain prescribed activities may be allowed in some areas but not others.

4.4 AMSA supports the concept of totally protected ("no-take") zones as part of a National system of marine protected areas. Such a system should aim to provide a network of biogeographically based protected areas containing representative examples of all significant marine habitats.

4.5 The prime purpose of no-take marine reserves is to provide maximum protection of their marine ecosystems from human disturbance. As such, they can provide important reference areas by which we can assess the extent to which people have altered similar ecosystems in other places. Reserves should be sufficiently large to meet their conservation objectives.

4.6 While most attention has focussed on the ecological values of MPA's it is also possible that in future they could be created to protect sites of geological or physical oceanographic significance.

5. Other Benefits of MPA's

5.1 MPA's may benefit human communities and marine environments in other ways. They may :

- provide educational opportunities
- help sustain exploited species populations and their fisheries
- improve scientific understanding of marine ecosystems
- provide enriched opportunities for non-extractive human recreational activities
- benefit regional communities through enhanced tourism activity.

5.2 Fisheries stock assessments and models are extremely complex and frequently lack necessary information to reliably predict sustainable catches. No-take reserves thus provide a "second line of defence" should current management fail. Protected populations of exploited species may assist stock recovery outside a reserve in two ways:

- through movement of mature individuals outside reserve boundaries; and
- by dispersal of planktonic life stages beyond reserve boundaries by water currents which move through a reserve.

5.3 No-take reserves remove all fishing pressure from exploited stocks in a limited area. For some species in bays and inlets the size of the recreational catch is comparable to the commercial catch.

5.4 Research into no-take marine reserves has shown dramatic increases in size (and as a consequence, also in fecundity) and abundance of commercially exploited marine species within them. The effectiveness of reserves for specific fisheries requires location specific research.

6. Resourcing of MPA's

6.1 Marine Protected Areas must be adequately resourced from the start to ensure they are properly managed and to protect them from illegal harvesting.

6.2 Well-designed scientific monitoring programmes should be part of their management. It is important to document ecosystem changes following protection to provide information to managers and the wider community on their performance. Such baseline information may also improve our ability to sustainably manage the marine environment.