

# The Dragon's Lair...

**National Dragon Search Project  
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## Seadragon Sighting Data

Last *Dragon's Lair* mentioned that the South Australian seadragon sighting database report was available on the Dragon Search website. Since that time, Janine Baker has completed a preliminary analysis of both the New South Wales and Western Australian seadragon sighting data. Both of these reports are now available for viewing on the Dragon Search website [www.dragonsearch.asn.au](http://www.dragonsearch.asn.au)

## SA Update

Dragon Search (SA) will continue to survey southern Australia's unique marine fish, thanks to a \$14,395 grant from the Federal Government's Natural Heritage Trust. The SA Department for Environment and Heritage has also contributed funds to the project.



Weedy seadragon. Photo: Angela Krok.

The funds will allow continued coordination of the seadragon survey and data analysis, monitoring of key habitat areas and community awareness of marine environments until April 2002.

Dragon Search originally started off as a small pilot program to encourage divers to be more involved in natural history. From its small beginnings, with support from the Marine Life Society of South Australia, Marine and Coastal Community Network and Threatened Species Network, Dragon Search now involves over fifty groups across the country, hundreds of divers and has spawned a range of other projects like the Leafy Seadragon Friendly Catchment program. We have also helped the establishment of a similar seahorse-monitoring project in New Zealand (see story on p.5).

Divers can be pioneering researchers by helping keep tabs on fish species. Just as birdwatchers on land have led to a greater understanding of terrestrial environments, fish-watchers can add much to our understanding of the hidden realm of seadragons.

Dragon Search has not only helped to raise awareness of our unique southern marine environments, but it has had some key conservation outcomes in Commonwealth legislation and encouraged state agencies to look at developing different policy attitudes for the conservation of fish.

Until recently, many marine managers had a "dinner plate mentality". Fisheries research has usually been targeted at fish we eat, and while that is necessary, there are many benefits in studying the whole range of our diverse marine life.

Seadragons are an important tourism species in South Australia with divers coming from all over the world to see these fish, but the full benefit to regional communities will only be realised if we protect marine habitats.

Early last year, SA Environment Minister Iain Evans proclaimed the leafy seadragon as South Australia's official marine emblem. Mapping and habitat data collected by Dragon Search are also being used by a South Australian government project to identify potential marine protected areas.

However there are still some concerns for the long-term conservation of seadragons, particularly the weedy

seadragon, which is not protected in South Australian waters.

It would be good to have the weedy seadragon listed as a protected species, however the ultimate key to the survival of seadragons is habitat protection. You can put a plant or animal's name on as many lists as you like but it means nothing if you do not protect its habitat. Marine parks are definitely the way to go.

Tony Flaherty  
Dragon Search (SA)/ Marine & Coastal Community Network

## WA Update

### Cottesloe Marine Protection Group

The Cottesloe Marine Protection Group (CMPG) are fighting to increase the levels of protection for the Cottesloe reefs. Cottesloe, Perth's most famous beach, is home to offshore limestone reefs that are a well known seadragon sighting location. Sandy beaches and similar sandy offshore habitats dominate the Perth metropolitan coastline. Cottesloe's limestone reefs are surrounded by sandy beaches for some miles in either direction.

The CMPG are lobbying Fisheries Western Australia to increase the level of protection for weedy seadragons -

to bring them into line with the protection leafies are given. Presently, leafy seadragons are protected under the Fish Resources Management Act 1994, Section 45.

In the Dragon Search (WA) seadragon sighting database report (see Dragon Search website, [www.dragonsearch.asn.au](http://www.dragonsearch.asn.au)) it was stated, 'In the metropolitan coastal region, the bulk of sightings of both seadragon species have come from locations around Perth, Fremantle and Rottnest Island. Although this may reflect the accessibility of these areas, it is interesting to note the importance of local, developed areas as habitat for these species'. Cottesloe is clearly one of these.

The work that the CMPG are doing is a great example of a local community group doing what they can within the given regulatory framework.

For further information the CMPG can be contacted on (08) 9384 3893.

Dragon Search presentations  
Dragon Search will be on tour again through the south of WA in summer 2001. If your dive club, school or group is interested in this fascinating slide/video presentation about seadragons and the Dragon Search project - contact Dennis on (08) 9420 7209.

Dennis Beros  
Dragon Search (WA)

## NSW Update

### Giant weedy seadragon still needs a home!

The giant weedy seadragon from last year's Sydney Harbour New Year's Eve celebrations is still looking for a home. The weedy (nicknamed Sid) was bought at auction by Ross and Gabrielle Lester, from Rydalmere in Sydney's west. Unfortunately, Sid is just too big to have sitting around, and is currently partially dismantled inside two shipping containers. Ross and Gabrielle are currently looking for a suitable under-cover venue to put Sid on display.

### Data analysis

Data from the first 2 ½ years of Dragon Search NSW has been analysed by Janine Baker. Janine has also worked on the South Australian Dragon Search Data. This information is now available on the Dragon Search website.

### Collection Permits

Dragon Search NSW has recently helped draft new guidelines for the collection of weedy seadragons from the wild in NSW. Although Dragon Search NSW does not support the removal of seadragons from their natural habitat, it is important that any collection that is allowed follows strict guidelines. We would like to thank NSW Fisheries for their encouragement and support on this issue.

### Protection for Dragon Colony Supported

Manly Council, on Sydney's Northern Beaches, has just voted to recommend that Cabbage Tree Bay be declared a 'no-take marine sanctuary'. Cabbage Tree Bay is on the

seaward side of North Head, and is one of Sydney's premier diving locations. It is also home to a large colony of weedy seadragons, as well as Eastern Blue Groper, Wobbegong sharks, Giant Cuttlefish, and is visited by transient species such as Grey Nurse Shark. The recommendation will now be passed onto NSW Fisheries, who have the authority to ban fishing in the area.

## Dragon Research

Angela Krok from the University of New South Wales is about to start what is probably the world's first PhD on seadragons. Under the supervision of Professor John Benzie, Angela will be studying the biology, population dynamics and population genetics of weedy seadragons around Sydney. Angela is a popular and well-known figure in the NSW dive community, and a big supporter and promoter of Dragon Search NSW. We wish her all the best with her studies, and anticipate some fascinating results.



Weedy seadragon. Photo: Angela Krok.

Craig Woodfield  
Dragon Search (NSW)

## Tas. Update

Since undertaking the Project Officer position for Dragon Search in late June two areas of this project (publicity and presentation) have progressed substantially for northern Tasmania.

In early July, the examiner newspaper wrote a story on the success of the seahorse farm at Beauty Point in northern Tasmania (the only one of its kind in Australia & possibly the southern hemisphere). David contacted the reporter (Ian Pattie) about Dragon Search the very next day thinking it would be wise to move fast for an article talking about the aims of Dragon Search and the previous work carried out by Gary Myers. He agreed, and when the article was published, the very next day David received over twenty phone calls from people who had found or had dived and seen dragons.

Other media publicity has been live radio interviews with John 'X' Xintavelonis on the *Nights Across Tasmania* program and the *Country Hour* program on ABC radio. The ABC story had David searching for beachwashed seadragons at Bellbuoy Bay Beach in northern Tasmania. It's an area close to where the proposed Gas Pipeline and

Power Cable will come ashore. The program went to 'air' on 5 September and was also sent to regional centres throughout Australia. Unfortunately no dragons were found on the day, however, on another beachcombing trip to this same area David found 3 beachwashed dragons (1 male, 1 female & 1 male juvenile). The same interview from the *Country Hour* was then used in Tony Scott's *Gone Fishin* program on ABC radio. Finally for publicity, David was able to get another article written about the search project in *The Advocate* newspaper on Friday 6 October.

Below are the Marine Naturalists David, Graeme and Jane finding a beachwashed dragon near Low Head at the head of the Tamar River.



David, Graeme and Jane at Low Head. Photo: Brian Hodgson.

During the past 3 months seven presentations have been delivered to three diving clubs and four to the general public. The three clubs were: Ocean Divers Plus which is based in Launceston; the Leven Dive Club in Devonport; and the Wynyard scuba club, NARCS. All have been keen to help out with the search. Leafy seadragons have also been seen in northern Tasmania, but to date no photographs of these creatures have been taken.

Presentations to the general public have been held at the Queen Victoria Museum and Art Gallery in Launceston. Forms were given out at the end of the session as well as information regarding marine life from the Marine and Coastal Community Network and *The Dragon's Lair*

All in all steady progress has been made over the past three months and with the advent of warmer weather sighting forms should start arriving from the north of the state.

David Bell  
Dragon Search (Tas.)

### Approval for Syngnathid Harvest

The Commonwealth Government has approved the harvest of a range of syngnathids in Victoria and South Australia under the Wildlife Protection (Regulation of Exports and Imports) Act 1982 by Victorian based PQ Aquatics.

These include leafy seadragon *Phycodurus eques* harvested from South Australia and weedy seadragon

*Phyllopteryx taeniolatus*, pot bellied seahorse *Hippocampus abdominalis*, short headed seahorse *H. breviceps*, Port Phillip pipefish *Vanacampus phillipi*, ringed-backed pipefish *Stipecampus cristatus*, and upside-down pipefish *Heraldia nocturna* harvested from Victoria.

The collection is subject to the following conditions:

1. Export of syngnathid species is restricted to specimens held or taken under the permits issued by Fisheries Victoria, Department of Natural Resources and Environment, or Primary Industries and Resources South Australia (PIRSA) and their offspring.
2. The following specimens may be collected from the wild annually in accordance with State permits:
  - leafy seadragon - one egg bearing male adult;
  - weedy seadragon - three egg bearing male adults;
  - no more than 10 juveniles of each of the following: pot bellied seahorse; short headed seahorse; ringed-back pipefish; upside down pipefish; and Port Phillip pipefish.
3. Harvest of syngnathids is prohibited in Commonwealth waters.
4. Cultured seahorses are not to be returned to the wild.
5. A portion of each shipment may be removed by the Designated Authority for sampling purposes.
6. Annual reports will be provided by the Company to the Designated Authority by 31 December 2001, 2002 and 2003 and should include:
  - total harvest; including species, location, quantities, size, reproductive state and sex of individuals collected;
  - results of spawning, mating and rearing trials and the number of mortalities that have occurred;
  - quantities and numbers of specimens for each species sold or held as stock; and
  - details of the reproductive success of the operation as agreed between the Company and the Designated Authority.

The approval is valid from 1 January 2001 until 31 December 2003 (unless superseded by a declaration in relation to a statewide management plan).

In January 2000 PQ Aquatics collected a breeding male from Rapid Bay which was returned after being kept in aquaria for four days to release 48 juveniles, mainly for export overseas to Public Display Aquaria.

Whilst the number of animals removed may be "insignificant" with regards to stability of the overall population of seadragons statewide and fisheries bycatch in other areas, it must be realised that sites like Rapid Bay are of extreme importance for the viewing of these fish in the wild by the public and in the long-term, SA might be better off, if these key sites are totally protected from take.

Whilst PQ Aquaria are extremely experienced and successful in syngnathid aquaria and hatching of juveniles, the collection of seadragons from sites such as Rapid Bay is considered problematic.

If fish are removed to hatch juveniles, many divers no doubt would probably prefer to see the animals returned. However as highlighted by the IUCN and Project Seahorse, such re-releases carry significant risks with regards to possible transmission of diseases. This also takes a significant proportion of juveniles out of the

area - one of the most significant for dive viewing of this species in the world - particularly if repeated annually at the same site.

However if the fish is removed from the area permanently, it may break up any established social hierarchies or bonds and / or disrupt the genetic and behavioural patterns of existing populations in the wild.

All in all it would be preferable if PIRSA would not permit the collection of seadragons from marine reserves and popular dive site localities such as Rapid Bay and parts of the Fleurieu Peninsula and Kangaroo Island.

Since 1997 Dragon Search, many divers, tourism interests and local, national and international conservationists and researchers have expressed concerns over the collection of seadragons from areas which are either study sites for researchers or focus areas for local and international dive tourists to view seadragons (e.g. Encounter Bay, Victor Harbor, Rapid Bay and Kangaroo Island).

Currently Dragon Search participants are undertaking the collation of a photo-data base of Rapid Bay Seadragons.

Tony Flaherty  
Dragon Search (SA) / Marine & Coastal Community Network

## Project Seahorse in Australia

Project Seahorse; who are we and what do we do? I hope that our name and our work are familiar to most of you reading this article. Like me, you may have been entranced and inspired by reading the National Geographic article 'The Improbable Seahorse' or watching the nature documentary 'Kingdom of the Seahorse'. These accounts of the work of Dr. Amanda Vincent, the first detailed studies of seahorses in the wild, represent the roots of Project Seahorse. Further work by Amanda provided details of the large-scale trade in dried seahorses, which was largely unsuspected at the time. Concerns about the levels of supply and demand provided further impetus for the formation of an organization dedicated to the conservation of seahorses. Thus, Project Seahorse came into being.

Our vision is a world in which populations of seahorses and their relatives (syngnathids) are secure in well-managed environments while respecting human needs. For example, seahorses provide most of the cash income for some fishers in the Philippines and we have been working to develop alternative environmentally sustainable livelihoods, which can relieve fishing pressure on wild populations. Our other work includes biological research on seahorses and their habitats, investigation of trade in live and dried animals, international conservation policy and education programs.

Although based at McGill University in Montreal, Canada, we have teams in many countries around the world including the Philippines, Vietnam, China (Hong Kong) and the U.K. To this list, we now add Australia and that's where I come in. For at least the next three

years, I will be involved in issues that involve Australian species of syngnathid, including of course the remarkable seadragons.

This country is one of the most significant in the world with respect to syngnathids. Australia is home to at least a third of the recognized species of seahorses as well as many species of pipefish, pipehorses and sea-moths. There is also a huge diversity of habitats, from tropical to temperate; seagrasses, algae beds and mangroves to temperate and coral reefs. Although syngnathids enjoy higher levels of government protection here than in many places, we have no reason to be complacent. Large numbers are caught as incidental by-catch in various fisheries, there are fisheries for the aquarium and aquaculture industries and loss / degradation of habitat has the potential to seriously affect populations. I will be evaluating all of these issues in conjunction with various local stakeholders – including federal and state government, conservation and industry bodies.

To better understand how conservation policies affect animals we need to know about their biology. Thus, I am also starting a biological research program. This will



investigate the fascinating reproductive system of seahorses. Although seahorses have male pregnancy, species investigated so far exhibit conventional sex roles. This means that females ultimately control reproduction. Faithful pair bonds have been demonstrated for some species, but investigations into behaviour in the wild

are limited. I will be using field-based research to try and better understand the mating systems of Australian seahorses.

As Amanda's original work was conducted in Sydney Harbour on White's seahorse, *Hippocampus whitei*, there is a pleasing symmetry about our new presence in Australia. I am very excited by the opportunity to work here and I hope that continued contacts with Dragon Search members can prove fruitful.

Further information about Project Seahorse can be found on our website: [www.projectseahorse.org](http://www.projectseahorse.org) and if you would like to contact me please send me an e-mail to [kmarti10@po-box.mcgill.ca](mailto:kmarti10@po-box.mcgill.ca)

The image above of Dr Keith Martin-Smith is courtesy of the Project Seahorse website.

Dr. Keith Martin-Smith  
Project Seahorse

## Environment Australia

Since 1 January 1998, all exports of syngnathid species taken from Australian waters must be accompanied by a permit from Environment Australia. Half of the world's 220 known species of syngnathids occur in Australian

waters. The decision to protect these species was a precautionary measure by Australia, which acknowledges the worldwide concern over the exploitation of syngnathids.

Permits to export syngnathids will only be granted by Environment Australia for captive bred specimens or specimens which have been taken from the wild under an approved management regime, in accordance with the *Wildlife Protection (Regulation of Exports and Imports) Act 1982* (the Wildlife Protection Act).

However, given the strong demand for syngnathids for use in traditional Asian medicines and from the aquarium industry, the Federal Government has established further protection for these species under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The EPBC Act, in force from 16 July 2000, enables the Commonwealth to join with the States and Territories to provide a national scheme of environment protection and biodiversity conservation.

Under the EPBC Act, all species in the Family Syngnathidae (seahorses, seadragons and pipefish) and all species in the Family Solenostomidae (ghost pipefish) have been nominated by the Minister as Listed Marine Species. The Minister may nominate a marine species to the list only if satisfied that:

- listing is necessary to ensure the long term conservation of the species; and
- the species occurs in a Commonwealth marine area.

A person is guilty of an offence under the EPBC Act if a Listed Marine Species is taken from a Commonwealth marine area and is traded or kept for personal purposes. An offence is avoided if, among others, the action is authorised by a permit issued by Environment Australia, or is in accordance with a permit issued by the Great Barrier Reef Marine Park Authority (GBRMPA); is the result of an unavoidable accident; or is an action taken in accordance with an accredited management plan or wildlife conservation plan.

The Minister must not therefore issue a permit for a syngnathid species unless satisfied that:

- (a) the specified action will significantly contribute to the conservation of the listed marine species concerned or other listed marine species; or
- (b) the impact of the specified action on a member of the listed marine species concerned is incidental to, and not the purpose of, the taking of the action and:
  - (i) the taking of the action will not adversely affect the conservation status of that species or a population of that species; and
  - (ii) the taking of the action is not inconsistent with a wildlife conservation plan for that species that is in force; and
- (c) the holder of the permit will take all reasonable steps to minimise the impact of the action on that species.

The Minister has the option of accrediting a plan of management for a fishery if the fishery does not, or is not likely to, adversely affect the conservation status of a Listed Marine Species.

Senator Hill recently approved management arrangements for the harvest of syngnathids from the wild in Western Australia. As part of the negotiations around this plan a number of initiatives have been taken to ensure syngnathid harvest remains within ecologically sustainable limits. These include prohibiting take from Commonwealth waters, introducing a review point if the harvest increases sharply, and establishing a new Resource Assessment Form that allows improved information to be gathered on syngnathids.

In Queensland, authority holders exporting syngnathids caught as bycatch in the Queensland East Coast Trawl Fishery have agreed to provide information on catches to the Griffith University. This information will help refine management arrangements in the future.

Rachael Faulkner  
Sustainable Fisheries Section, Marine & Water Division  
Environment Australia

### A visit to NZ Survey Seahorse 2000

Over October 2000 I was fortunate enough to travel to New Zealand, and while there, to catch up with a number of groups involved in threatened species recovery and monitoring, including Survey Seahorse 2000. Survey Seahorse 2000 is a New Zealand monitoring program run by the western New Zealand Underwater research team. New Zealand Underwater is an organisation which represents individuals and recreational groups who believe it is important to responsibly enjoy the unique and exciting 'other world' under the waves. They actively support projects that aim to preserve and protect marine species.

Based on the model provided by the Australian Dragon Search program, it encourages community members to provide information on seahorse sightings to a central database, maintained in Auckland. The information will be used to determine distribution and population sizes around New Zealand to support their management and conservation.



David Edey, Vicki-Jo Russell and Mike Percy.

The aims of the project are to:

- Encourage members of the community to provide information on seahorse sightings and to promote that ideal to children, seven years and older, by introducing

them to this marine awareness program.

- To bring about, through legislation, full protection for the New Zealand Seahorse (the big-bellied seahorse, *Hippocampus abdominalis*) and the associated Syngnathidae family, e.g. pipefish. The project is also keen to identify significant seahorse sites that are under threat and may benefit from the protection of the establishment of a marine reserve.
- In the long term, establish a database of other endemic marine creatures.

Like Australia, seahorses in New Zealand are under pressure by take for use in traditional medicines, as aquarium fish and as curios. Globally seahorses are under threat due to habitat loss and potentially unsustainable levels of take. Much of the basic biology of the New Zealand Seahorse is not known, such as its abundance, geographic range, behaviour, ecology and reproductive capacity.

NZ Survey Seahorse 2000 has been in contact with Dragon Search (SA) since its recent inception and it was a treat to meet some of the hard-working volunteers behind the project, such as Mike Percy (photographed on previous page). They are busy distributing over 5000 survey sheets through dive clubs, shops and the marine research community. Already several key research projects have linked in to the project. With the recent establishment of a Project Seahorse Project Officer in Australia we hope that the trans-Tasman cooperation for seahorse conservation will only go from strength to strength. If you would like further information or contact with the project, please email Mike Percy at: [seahorse2000@xtra.co.nz](mailto:seahorse2000@xtra.co.nz).

Vicki-Jo Russell  
Dragon Search (SA)/Threatened Species Network (SA)

### Threatened Marine Species List

The Office for Coast and Marine of the Department for Environment and Heritage has applied for a grant from the Coast and Clean Seas (CCS) Program to compile a list of threatened, rare and vulnerable marine organisms. CCS grants have not yet been announced, however even without funding the development of such a list is a priority of the State Government under its Marine and Estuarine Strategy, and some initial consultations have already been held. The Coast Protection Board has contributed \$5,000 to this project.

The most likely form the list will take is as part of a discussion paper, which will outline first what criteria and protocols should be used to make decisions about species status, and the sources of data. An initial list will be made, and then circulated to all stakeholders for comment.

Sue Murray-Jones  
Office for Coast and Marine  
Department for Environment and Heritage

#### Editor's note

In the mean time we are very keen to receive species nominations for the list. The list will contain species thought to be threatened or declining in the South

Australian marine environment. In the first instance we would like to receive information about the species: name, known range, habitat preferences, main threats and any observations of declines in numbers and or extent. If you would like to nominate a species or register your interest for future consultation please email Vicki-Jo Russell, Threatened Species Network (SA) at [tsnsa@ozemail.com.au](mailto:tsnsa@ozemail.com.au) or phone on (08) 8223 5155.

### Marine Algae Workshop

Following the success of Reef Watch's recent Marine Invertebrate workshop, a second workshop has been planned. This workshop will focus on marine algae.

Seaweed may be the last thing you think about when you go diving but it plays an invaluable role in the marine ecosystem. Here is your chance to learn more. SARDI Aquatic Sciences has once again generously donated the use of its facilities for the workshop. Dr Anthony Cheshire, SARDI's Chief Scientist and a marine botanist will be leading a team of instructors in teaching basic algae identification skills, the function of algae in the ecosystem and their physical characteristics.

The workshop will be held on 9:30am – 4:30pm, Sunday 4 February 2001. If you would like to participate in the workshop or would like further information on the Reef Watch program contact Sheralee Cox on (08) 8223 5155 or [info@reefwatch.asn.au](mailto:info@reefwatch.asn.au). Information on the Reef Watch program can be viewed at [www.reefwatch.asn.au](http://www.reefwatch.asn.au)

### South Australian Representative System of Marine Protected Areas

Marine biodiversity must be conserved to ensure the proper functioning of marine ecosystems. Biodiversity conservation is important for maintaining gene pools, the "building blocks" of life, which ensure that life in the seas will continue to thrive long into the future. Marine protected areas are one of the tools used to conserve marine biodiversity. They can be defined as:

*Any area of intertidal or subtidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment (IUCN 1998).*

Worldwide, there are different types of MPAs, differing in name, legislation, purpose, size and level of protection (i.e. activities that are excluded). The International Union for the Conservation of Nature (IUCN) defined 7 categories of MPA. These categories apply only to MPAs that are primarily for biodiversity conservation and relate to secondary purposes. They are:

- 1a: for science
- 1b: for wilderness protection
- II: for ecosystem conservation and recreation
- III: for conservation of specific natural features
- IV: for conservation of particular species or habitats through active management
- V: for landscape / seascape conservation and recreation

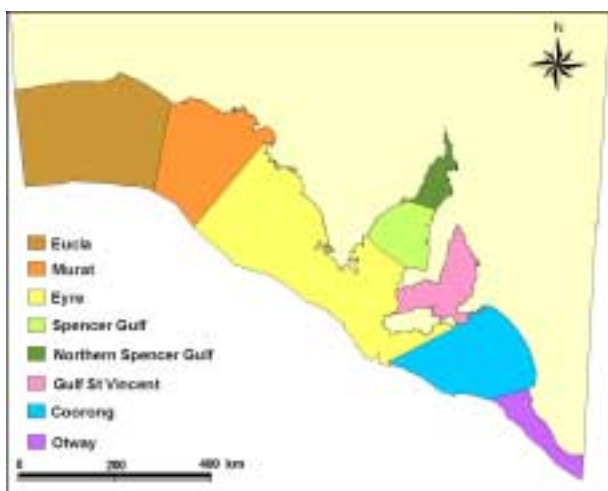
VI: sustainable use for a range of activities, including industry  
Each category allows for different activities. Category I MPAs are highly protected areas with few activities allowed, whereas category VI MPAs are considered multiple-use managed areas with many activities permitted.

Marine protected areas in South Australia include:

- 14 Aquatic Reserves declared under the *Fisheries Act 1982* for a range of purposes including education, recreation, scientific research and conservation of particular habitats or species;
- a shipwreck protection zone of 1 km<sup>2</sup> to protect the “Zanoni” shipwreck from fishing and unauthorised underwater activity;
- a number of areas closed to netting, spearfishing or the take of particular species (e.g. rock lobster) under the *Fisheries Act 1982*;
- a number of extensions of land based National Parks; and
- one marine park, the Great Australian Bight Marine Park, with areas proclaimed under the *Fisheries Act 1982*, *National Parks and Wildlife Act 1972* and the *Commonwealth National Parks and Wildlife Conservation Act 1975* that allow uses in the summer months and restricts uses during winter months (SARDI 1999).

New marine protected areas will be declared during the next few years. The Office for Coast and Marine of the Department for Environment and Heritage, with the assistance of a Scientific Advisory Group, is currently identifying and selecting candidate marine areas for protection to be included for possible inclusion in the Commonwealth National Representative System of Marine Protected Areas. The aim of the project is to recommend new MPAs for the purpose of conserving biological diversity. The recommended areas will assist the Government in the establishment of a State Representative System of Marine Protected Areas, a commitment of the Marine and Estuarine Strategy for South Australia.

This system is planned around ecological rather than administrative boundaries. Sixty “bioregions” have been identified around Australia, 8 of which overlap with SA waters. They differ in attributes such as water temperature and wave exposure (which affect the type of marine life).



South Australian marine bioregions

There is considerable variation within the bioregions and different ecosystem types can be distinguished. Areas must be chosen that both include the different types of ecosystem and which are of adequate size (i.e. large enough to withstand the impact of threatening or destructive processes and influences).

The South Australian MPA system will have the multiple-use concept as its underpinning principle, as highlighted by the Marine and Estuarine Strategy for South Australia, with few areas set-aside for high protection.

In order to achieve a partnership between stakeholders and Government, a Marine Protected Areas Task Force was established on 15 August 2000. The establishment of a suite of marine protected areas throughout the coastal and estuarine waters of South Australia has been recognised by the Government as a very significant initiative with the potential to affect the lives of all those who derive a living from the marine environment, who use it for recreation or who care for its integrity as a natural biological system. The purpose of establishing the task force was to ensure that all sectors of the community with an interest could form a coalition charged with arriving at a set of balanced decisions on where, to what extent and for what purpose marine protected areas should be established. The membership of the Task Force is as follows:

Non-Government (one member from each of the following organisations):

- South Australian Fishing Industry Council (SAFIC)
- Seafood Council (SA) Ltd.
- South Australian Recreational Fishing Advisory Council Inc.
- Marine and Coastal Community Network (MCCN)
- Conservation Council of South Australia
- South Australian Chamber of Mines and Energy
- Australian Marine Conservation Society (AMCS)
- Indigenous representation

State and Local Government (one member from each of the following organisations):

- Department for Environment and Heritage, Environment Protection Agency (Chair)
- Department for Environment and Heritage, National Parks & Wildlife
- Department of Primary Industries and Resources SA, (Fisheries / Aquaculture)
- Department of Primary Industries and Resources SA, Sustainable Resources
- South Australian Tourism Commission
- Local Government Association

Independent

- Scientific Advisory Group (Chair)

Fishing industry interests are represented in the task force through SAFIC and Seafood Council. The terms of reference of the task force are:

- To make recommendations for the identification and selection of candidate areas for a SARMMPA from a draft list prepared by the Department for Environment and Heritage (DEH);
- To represent the views of their organisation and /or its members on the process mentioned above;

III To work with DEH by advising on appropriate mechanisms towards achieving an efficient stakeholders consultation process.

A Scientific Advisory Group was also established on 31 August 2000. It comprises representatives from SARDI, Flinders University, the University of Adelaide and the South Australian Museum.

The process of community consultation will begin after the Marine Managers Forum approves the list of candidate areas. The Forum is currently discussing the list. It is envisaged that the consultation process will be extensive and broad to include all the stakeholders.

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- Government of South Australia. 1998. *Our Seas and Coasts: A Marine and Estuarine Strategy for South Australia*.

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- SARDI. 1999. *Conserving Marine Biodiversity in South Australia - Part 1 - Background, Status and Review of Approach to Marine Biodiversity Conservation in South Australia*. SARDI Report Number 38, Government of South Australia.

Patricia Carvalho  
Principal Advisor, Marine Biodiversity  
Office for Coast and Marine  
Department for Environment and Heritage

(This article also appeared in the SA Regional Ripples, supplement to Waves, the newsletter of the Marine & Coastal Community Network).

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