



Oceans of opportunity for our southern coast

The marine environment of Western Australia's south coast is one of the State's natural treasures. Home to a stunning array of plants and animals, the Southern Ocean also provides valuable resources and has been an important recreational destination for generations of Western Australians and visitors alike. A new planning initiative aims to ensure the many benefits of this unique resource are available for all time.



by Ian Herford

Western Australia's south coast fronts the ceaseless swells of the Southern Ocean with its fearsome reputation as one of the world's wildest bodies of water. The marine plants and animals off this coast are well adapted to ferocious seas and thrive in such conditions. The people of the State's south have also 'adapted' to the Southern Ocean and have found ingenious ways to harvest its resources and enjoy its restless beauty.

Something for everyone

Aboriginal people have spent time on this coast for thousands of years, fishing and collecting shellfish, crustaceans and other marine resources. Today, commercial and recreational fishers, divers, surfers and sailors all enjoy the benefits of the south coast marine environment. The ports of Albany and Esperance are connected to the world by sea lanes traversing this stretch of coastline. Exploration for petroleum is about to begin offshore. Whales frequent these waters on a seasonal basis, as they have done for millennia, and these days whale watchers have joined them. Islands off the coast are home to colonies of seals, sea lions, penguins and other seabirds, all of which depend on the sea to survive.

A unique assemblage of plants and animals has evolved in the waters of



the south coast. The south coast marine environment includes spectacular granite reefs, sponge gardens, limestone reefs, seagrass meadows, kelp gardens and communities of filter feeders in deeper waters. In the Recherche Archipelago off Esperance, the only area that has been intensively surveyed, scientists have also discovered large areas containing rhodolith beds of calcareous algae.

An extremely high proportion of species in Australia's southern waters are found nowhere else in the world, such as the remarkable and uncommonly seen leafy seadragon. When marine biologists surveyed the Recherche they collected 300 to 400 species of sponges and around 40 to 50 per cent were new to science! Even in a better-known group like the fish, six completely new species were discovered.

The south coast marine environment—and all it offers—is worthy of our protection, not just for the users of today, but for the future. At present, the complex array of uses of the marine environment is not managed in an integrated way. Each group of users, such as government bodies, businesses, natural resource management groups and volunteers is active in planning and managing various aspects of the marine environment and its resources. What is lacking is integration of these sectoral contributions—and the assurance that, when they are added up, the various uses make a sustainable whole. Will future generations be able to enjoy the same range of benefits we currently derive from the marine environment, or are we depleting it in some way and reducing their options?

A new approach to marine planning

This is where the concept of 'regional marine planning' comes in. The WA Government has recently announced an initiative designed to provide the integration currently lacking in planning for and managing the marine environment. Put simply, regional marine planning is designed to produce a strategic plan for each marine region, to better integrate the activities of the various marine sectors. The aim is to achieve protection, maintenance and sustainable use of the marine environment. The strategic plans must be based on the best available science but, at the same time, take into account the views of



Previous page

Main Fishing Beach Boat Harbour, Bremer Bay.

Photo – Dennis Sarson/Lochman Transparencies

Insets from left Seaweeds, sea squirts, buffalo bream and Australian sea lion.

Photos – Eva Boogard

Above Aboriginal fish traps, Oyster Harbour.
Photo – Ian Herford

Left Albany Port and commercial charter boat, Princess Royal Harbour, Albany.
Photo – Bill Belson/Lochman Transparencies



Above Watching a pod of five humpback whales in Flinders Bay near Augusta.
Photo – Tourism Western Australia

marine users. Governments, agencies, maritime industries, non-government organisations and the general public will all play a role in regional marine planning.

It is important to realise that regional marine planning is not the end of the story. Marine strategic plans will be high-level documents dealing with processes and approaches to managing the marine environment. Regional marine planning will not include specific management actions. It will provide a framework within which each of the different marine user groups can conduct detailed planning and management in an integrated way to ensure the overall result is sustainable.

At the State level, a framework for regional marine planning is to be prepared with input from a policy stakeholder group and a new scientific panel (see box). At the same time, the first regional marine planning process is to be initiated for WA's south coast from Cape Leeuwin to the South Australian border. This exercise will be one of the first of its kind in Australia and will put WA among the frontrunners in regional marine planning worldwide.

Putting the State framework in place

A broad-based State marine policy stakeholder group has been established to provide advice to the Western Australian Government on a new regional marine planning framework and on the south coast regional marine planning project. The group is chaired by former Environmental Protection Authority head Barry Carbon. A reference panel of leading scientific experts will also be appointed to provide advice on planning and policy development.

The 'New Horizons in Marine Management' policy, adopted by the State Government in 1994, is to be reviewed and updated with input from the policy stakeholder group to create a new policy on marine conservation reserves for WA.

As regional marine planning gathers pace, a community education program will help to explain the new initiatives and encourage everyone to become involved in the future of WA's unique marine environment.

Frontrunners

Regional marine planning is very much in its infancy worldwide. Around the globe, only a handful of similar processes have been undertaken. These include an Arctic Marine Strategic Plan (2004) produced by the nations with Arctic territories; an Irish Sea Pilot Regional Plan (2005) from the UK; and the Eastern Scotian Shelf Integrated Ocean Management Plan (2006) from Canada.

Australia is also among the leaders. In 2004, the Australian Government released the South East Regional Marine Plan covering Commonwealth waters off Tasmania, Victoria and parts of New South Wales and South Australia. The first regional marine plan

for State waters in Australia is the Draft Spencer Gulf Marine Plan released by the South Australian Government in 2006. Western Australia is now taking its place among the frontrunners in regional marine planning.

Marine stakeholders on the south coast and elsewhere will be encouraged to have their say on the key issues affecting the south coast marine environment. Regional marine planning for the rest of the WA coast will be considered in the light of experience with the south coast planning process.

To ensure that the south coast regional marine planning process is scientifically robust, existing information about the region's marine



environment will be collected together for the first time, and included in a geographic information system. This work is being carried out through a project funded by the South Coast natural resource management group, SCRIPT. Ocean habitat types, fisheries data, marine plant and animal distribution, Aboriginal interests and recreation, tourism and port usage information will all be included, enabling the production of maps to aid the planning process. Relevant information on social and economic aspects of the south coast marine environment will also be collated.

Conserving a mixed bag

The temperate seas of WA's south coast are subject to the vagaries of the Leeuwin Current. This band of warm, relatively-low-salinity, nutrient-depleted water starts near the North West Shelf, and travels down the west coast, wrapping around Cape Leeuwin and continuing eastwards as far as the Great Australian Bight, though it varies in strength from year to year. In so doing, it transports tropical species of plants and animals to the temperate south coast of WA. Thus the south coast is home to a mixture of species of both temperate and tropical origin.

It is this marine diversity which attracts recreational divers and snorkellers to the south coast and which supports active commercial and recreational fisheries. Commercial fishers target species ranging from crustaceans and abalone, to finfish, sharks and in some years, even scallops. Recreational fishing is a favourite south coast pastime with black bream, cobbler, King George whiting, herring and Australian salmon being caught from the shore and trevally, queen snapper,

Top left Lucky Bay and the Recherche Archipelago.

Centre left Aerial photo of Esperance showing Bandy Creek Boat Harbour bottom centre and Esperance Port upper left.
Photos - David Bettini

Left Information collected during studies on the south coast will guide in the protection of unique assemblages of marine plants and animals.
Photo - Justin McDonald



red snapper and sharks among the species favoured by offshore anglers.

Although there have been no comprehensive surveys of marine flora and fauna along the WA south coast, a number of site-specific studies have been conducted. As an example of the biodiversity of the south coast, consider that about 60 seagrass species are known worldwide, with some 20 of these restricted to southern Australia. In the Recherche Archipelago off Esperance, 263 species of fish and an amazing 234 species of marine algae have been identified (see 'Researching the Recherche', *LANDSCOPE*, Winter 2003). Nearly 400 species of marine molluscs have been recorded in the Albany area.

In order to conserve this extraordinary biodiversity, planning will have to consider the need for a network of marine protected areas on the south coast. The 1994 report of the Marine Parks and Reserves Selection Working Group identified areas of conservation interest and these will be reviewed as part of the regional marine planning process. After the Marine Strategic Plan is completed, the Department of Environment and Conservation and other agencies will work with the community and users to consider marine reserve creation in more detail. This process will be carried out under the umbrella of the Marine Strategic Plan to ensure that marine protected areas are integrated with other marine uses.

Though the many marine species are unaware of it, at the three nautical mile limit of State waters, they leave WA and enter Commonwealth waters. Beyond



Above A commercial pilchard catch being unloaded in Albany.
Photo – Department of Fisheries

the three nautical mile State boundary, Australia's marine environment is managed by the Australian Government, which is preparing a 'marine bioregional plan' for Commonwealth waters in the 'south-west marine region'. This stretches all the way from Kangaroo Island in South Australia to offshore Shark Bay in WA. As this is happening at the same time as the south coast regional marine planning process, close contact is being maintained between the State and Australian governments to ensure maximum integration of the two planning approaches. Further information about the Australian Government's marine bioregional planning is available from the Department of the Environment and Water Resources website at www.environment.gov.au/coasts/mbp/index.html.

Getting involved

The hub of stakeholder engagement for the south coast regional marine planning process will be a local planning and advisory group. Members of this group will represent the range of marine interests and the geographic spread of the planning region. Commercial and recreational fishers, Aboriginal people, tourist operators, natural resource management organisations, aquaculturalists, conservation groups, local authorities, educators and other interested people were all invited to express an interest in joining the planning advisory group.

More broadly, there is a role for

Above left Sea star and footballer sweep on the coast offshore from Fitzgerald River National Park.
Photo – Eva Boogard

everyone who has a stake in the south coast marine environment. The public will be encouraged to become involved in regional marine planning through calls for comment, regional meetings and the chance to provide submissions to a draft strategic plan. The target date for release of the final marine strategic plan is mid-2008.

Regional marine planning is an exciting new direction to ensure the protection, maintenance and sustainable use of our priceless marine environment. Western Australians are known for their love of the ocean—now we can all help plan for its future.



Ian Herford is the Department of Environment and Conservation's Principal Marine Policy Officer. He is based in Albany, having moved there in 1989 to take up the position of Regional Planning Officer for the south coast region with the former Department of CALM. He can be contacted on (08) 9842 4500 or by email (ian.herford@dec.wa.gov.au).

Special thanks to Carolyn Thomson-Dans, Eve Bunbury, Paula Tomkins and Peter Dans for their input to this article.

- 49 Will curiosity kill the cat?
Research is being carried out in the northern jarrah forest with some interesting results
- 56 Surprises in the sand
Scratch the surface of the sandy areas between the offshore reefs and the shoreline in Jurien Bay Marine Park and you'll find some surprising and fascinating life forms.

Regulars

- 3 Contributors and Editor's letter
- 9 Bookmarks
The Lizard Gang
Australian Seeds
Wild Familiars
- 18 Feature park
Shark Bay Marine Park
- 48 Endangered
Scott River Ironstone Association
- 62 Urban Antics
Well... I'll be bugged

Publishing credits

Executive Editor Kaye Verbeon

Editors Rhianna King, Samille Mitchell, Carolyn Thomson-Dans

Scientific/technical advice

Kevin Kenneally, Paul Jones, Keith Morris

Design and production

Maria Duthie, Natalie Jolakoski, Tiffany Taylor, Gooitzen van der Meer, Grant Fuller, David Abel

Illustration

Gooitzen van der Meer

Cartography

Premaco Geodraft

Marketing

Cathy Birch

Phone (08) 9334 0296 Fax (08) 9334 0432

Subscription enquiries

Phone (08) 9334 0481 or (08) 9334 0437

Prepress and printing

Advance Press, Western Australia

© ISSN 0815-4465

All material copyright. No part of the contents of the publication may be reproduced without the consent of the publishers.

Please do not send unsolicited material but feel free to contact the editors.

Visit NatureBase at www.naturebase.net

Published by the Department of Environment and Conservation, 17 Dick Perry Avenue, Kensington, Western Australia

