

CHAPTER 1 INTRODUCTION

Marine bioregional planning is being undertaken to better protect marine environments, conserve biodiversity and deliver greater certainty for industry, the wider community and decision makers about the marine conservation priorities of the Australian Government. Section 176 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) requires that, where relevant the Minister for the Environment, Heritage and the Arts must have regard to a Marine Bioregional Plan when making decisions under the EPBC Act.

Marine bioregional planning is also the process through which the Australian Government identifies areas within Commonwealth waters for inclusion in the National Representative System of Marine Protected Areas (MPAs). The guidelines the Government is using to develop the National Representative System of MPAs have been agreed with the States and the Northern Territory. See <www.environment.gov.au/coasts/mpa>.

Marine Bioregional Plans will guide Government decision-makers and marine users by:

- describing each Region's conservation values, including mapping sites of importance for protected species and communities, and ecological processes;

- identifying regional priorities for action, based on an assessment of threats to conservation values and long-term policy goals; and
- developing strategic guidance for proponents and decision-makers. For example, providing proponents with a regional context to national guidelines will enable them to better consider whether their action might result in a significant impact (see Appendix B). Plans may also include guidance on the type of information that should be included with referrals under the EPBC Act or the monitoring requirements that may be required for certain activities or locations within a Region.

Each Marine Region is divided into bioregions based on ecological similarities, species distribution and oceanographic and seafloor characteristics¹. The South-west Marine Region has seven bioregions, which are described in Chapter 2. These bioregions reflect our understanding of the Region's ecology and underpin the planning process.

¹ For the purpose of this document, 'bioregion' means provincial bioregion as defined in the *Integrated Marine and Coastal Regionalisation of Australia Version 4.0*.



Seawhips (octocorals) extending from fine sands, Central Western Province, 418 m deep. Photo: CSIRO.



1.1 The Bioregional Profile of the South-west Marine Region

The South-west Marine Region encompasses Commonwealth waters from the eastern end of Kangaroo Island, South Australia, to offshore of Shark Bay in Western Australia (Figure 1.1). It covers 1.3 million km² of ocean and also includes the airspace above the water and the seabed below. The Region is described in more detail in Chapter 2. In this Bioregional Profile, the terms the Region, and the South-west Marine Region are used interchangeably to refer to the Commonwealth waters defined above.

The objectives of the South-west Bioregional Profile are to describe:

1. the conservation values of the Region – including marine species, communities and places already specifically protected under legislation, and those identified through the planning process as key ecological features;
2. the considerations and information that will guide the identification of MPAs; and
3. ecosystems and human activities.

In addition to this Introduction, the Bioregional Profile includes five other chapters, and appendices:

Chapter 2 – *The marine environment of the South-west Marine Region* describes the biophysical and ecological characteristics of the Region, with particular focus on ecosystem structure and functioning.

Chapter 3 – *Conservation values of the South-west Marine Region* summarises and describes the biodiversity and heritage features that are considered of conservation value in the South-west Marine Region.

Chapter 4 – *Establishing new marine protected areas in the South-west Marine Region* introduces the goals and principles of the Australian Government for the establishment of the Commonwealth component of the National Representative System of MPAs and explains their application to the South-west Marine Region.

Chapter 5 – *Human activities and the South-west Marine Region* outlines the human activities that take place in the Region. It also provides a short overview of the population and the historical development of the South Australian and Western Australian economies adjacent to the Region.

Chapter 6 – *Developing a South-west Marine Bioregional Plan: next steps* describes the stages of marine bioregional planning beyond the Bioregional Profile, and opportunities for stakeholder participation.

Appendix A – *International conventions and agreements on the marine environment* describes Australia's international commitments to manage the marine environment.

Appendix B – *An overview of the legislative framework for environmental protection and biodiversity conservation in Commonwealth waters* explains Australia's national legislation for managing its marine areas.

Appendix C – *Nationally Protected Species in the South-west Marine Region* lists all the species known to occur and those which may occur in the Region that are protected under the EPBC Act.

Appendix D – *South-west Marine Region Protected Species Group Report Cards* provides detailed information about species protected under the EPBC Act. Report Cards on species groups outline their ecology, areas of particular importance, interactions with human activities, threats to their survival and mitigation measures currently being used.



A decapod crustacean swimming over fine sediments. Central Western Province, 411 m deep. Photo: CSIRO.



Dolphin. Photo: Kevin Smith, Marine Life Society of South Australia.



1.2 Supporting information

A number of separate reports were commissioned to consolidate available information to support the development of this Bioregional Profile. Those reports contain further details on the natural environment and human uses of the Region and are available online at <www.environment.gov.au/coasts/mbp/south-west>.

Marine bioregional planning has a strong focus on understanding the natural environment. A scientific workshop was held in September 2006 to bring together marine scientists with specific experience and expertise in the Region. The aim was to take stock of current knowledge and theory about the way marine ecosystems function in the Region. It also helped to ensure that the Bioregional Profile and subsequent Marine Bioregional Plan are based on the most comprehensive understanding possible, with an explicit recognition of the uncertainties due to gaps in the information base. The outcomes of the workshop are also available online at <www.environment.gov.au/coasts/mbp/south-west>.

The Bioregional Profile is intended to help stakeholders and the public to participate in the development of the South-west Marine Bioregional Plan. The Department of the Environment, Water, Heritage and the Arts welcomes any contribution from the public about information that may be relevant to bioregional planning within the South-west Marine Region. The Department of the Environment, Water, Heritage and the Arts will consult with stakeholders to discuss the contents of the Bioregional Profile and explain subsequent steps in the planning process.

Key references and further readings

Australian and New Zealand Environment and Conservation Council, Task Force on Marine Protected Areas (ANZECC TFMPA), 1998, *Guidelines for Establishing the National Representative System of Marine Protected Areas*, Environment Australia, Canberra, <www.environment.gov.au/coasts/mpa>, accessed 07/05/07.

Department of the Environment and Heritage (DEH), 2006, *A Guide to the Integrated Marine and Coastal Regionalisation of Australia Version 4.0*, DEH, Canberra, <www.environment.gov.au/coasts/mbp/publications/imcra-4>, accessed 07/05/07.

Department of the Environment and Water Resources (DEW), 2006, *Characterisation of the Marine Environment of the South-west Marine Region: Perth Workshop Report*, DEW, Canberra, <www.environment.gov.au/coasts/mbp/south-west>.

Legislation

Environment Protection and Biodiversity Conservation Act 1999 (Cth), <www.environment.gov.au/epbc/about>, accessed 07/05/07.



Southern rock lobster. Photo: Marine Life Society of South Australia.