

# 2014 NATIONAL REPORT OF PARTIES ON THE IMPLEMENTATION OF THE CONVENTION ON THE CONSERVATION OF MIGRATORY SPECIES OF WILD ANIMALS

**The deadline for submission of the reports is 1 May 2014. The reporting period is 15 June 2011 to 1 May 2014.**

Parties are encouraged to respond to all questions. Parties are also requested to provide comprehensive answers, including, where appropriate, a summary of activities, information on factors limiting action and details of any assistance required.

Reporting format agreed by the Standing Committee at its 40th Meeting (Bonn, November 2012) for mandatory use by Parties, for reports submitted to the Eleventh Meeting of the Conference of the Parties (COP11) 2014.

The questions below combine elements of Resolution 4.1 (Party Reports) adopted by the Fourth Meeting of the Conference of the Parties (Nairobi, June 1994) and Resolution 6.4 (Strategic Plan for the Convention on Migratory Species 2000-2005), adopted by the Sixth Meeting of the Conference of the Parties (Cape Town, November 1999), the COP8 Strategic Plan 2006-2011 and Resolution 8.24 adopted by the Conference of the Parties (Nairobi 2005), as well as commitments arising from other operational Resolutions and Recommendations of the Conference of the Parties.

COP Resolution 9.4 adopted at Rome called upon the Secretariats and Parties of CMS Agreements to collaborate in the implementation and harmonization of online reporting implementation. The CMS Family Online Reporting System (ORS) has been successfully implemented and used by AEWA in their last Meeting of the Parties (MOP 5, 2012) reporting cycle. CMS now offers the Convention's Parties to use the ORS for submitting their national reports for the COP11 (2014) reporting cycle.

Please enter here the name of your country

> Australia

Which agency has been primarily responsible for the preparation of this report?

> Department of the Environment

Please list any other agencies that have provided input

> Australian Government Department of Agriculture

Australian Fisheries Management Authority

Great Barrier Reef Marine Park Authority

Australian Antarctic Division (DotE)

Department of Primary Industries (New South Wales)

Office of Environment and Heritage, Department of Premier and Cabinet (New South Wales)

Department of Natural Resources, Environment, the Arts and Sport (Northern Territory)

Department of Parks and Wildlife (Western Australia)

Department of Fisheries (Western Australia)

Department of Sustainability and Environment (Victoria)

Department of Primary Industries (Victoria)

Department of Environment, Water and Natural Resources (South Australia)

Department of Primary Industries and Resources (South Australia)

Department of Primary Industries, Parks, Water and Environment (Tasmania)

Department of Environment and Resource Management (Queensland)

Department of Employment, Economic Development and Innovation (Queensland)

Humane Society International

WWF-Australia

RecFish Australia

## I(a). General Information

Please enter the required information in the table below:

### Party

Date of entry into force of the Convention in your country  
> 1991

Period covered  
> January 2011 - March 2014

Territories to which the Convention applies  
> Commonwealth of Australia, its Territories and territorial waters.

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### Submission

#### Name and Signature of officer responsible for submitting national report

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**Date of submission**

> May 2014

**Membership of the Standing Committee (if applicable):****Name:**

> N/A

**Implementation****Competent Authority:**

> Australian Government Department of the Environment

**Relevant implemented legislation:**

> Implementing legislation (Commonwealth):

Environment Protection and Biodiversity Conservation Act 1999 (hereafter referred to as the EPBC Act ). The EPBC Act is the Australian Government's central piece of environmental legislation. It provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places — defined in the Act as matters of national environmental significance.

Further information on the EPBC Act can be found at:

<http://www.environment.gov.au/epbc/publications/pubs/epbc-act-fact-sheet.pdf>

Great Barrier Reef Marine Park Act 1975

Fisheries Management Act 1991

Torres Strait Fisheries Act 1984

Native Title Act 1993

Water Act 2007

**Implementing legislation (New South Wales):**

National Parks and Wildlife Act 1974

National Parks and Wildlife Regulation 2009

Threatened Species Conservation Act 1995

Fisheries Management Act 1994

Marine Parks Act 1997

**Implementing legislation (Victoria):**

National Parks Act 1975

Wildlife Act 1975

Flora and Fauna Guarantee Act 1988

Wildlife (Marine Mammal) Regulations 2009 (Statutory Rule No. 152/1998)

Fisheries Act 1995

**Implementing legislation (Queensland):**

Marine Parks Act 2004

Nature Conservation Act 1992

Queensland Fisheries Act 1994

Fishing Industry Organisation and Marketing Act 1982

**Implementing legislation (South Australia):**

Natural Resources Management Act 2004

National Parks and Wildlife Act 1972

Fisheries Management Act 2007  
 Marine Parks Act 2007  
 Native Vegetation Act 1991  
 Environment Protection Act 1993

Implementing legislation (Western Australia):

Wildlife Conservation Act 1950  
 Fish Resources Management Act 1994  
 Conservation and Land Management Act 1984  
 Wildlife Conservation (Close Season for Marine Mammals) Notice 1998  
 Wildlife Conservation (Close Season for Whale Sharks) Notice 1996  
 Fish Resources Management Regulations 1995

Implementing legislation (Tasmania):

Living Marine Resources Management Act 1995  
 Nature Conservation Act 2002 and National Parks and Reserves Management Act 2002  
 Whales Protection Act 1988  
 Tasmania Threatened Species Protection Act 1995  
 Natural Resources Management Act 2002

Implementing legislation (Northern Territory):

Fisheries Act 1988  
 Territory Parks and Wildlife Conservation Act 2007

Implementing legislation (Australian Capital Territory):

Nature Conservation Act 1980

Implementing legislation (External Territories):

Antarctic Treaty (Environment Protection) Act 1980  
 Australian Antarctic Territory Migratory Birds Ordinance 1980  
 Christmas Island Act 1958  
 Cocos (Keeling) Islands Wild Animals and Birds Ordinance 1980  
 Cocos (Keeling) Islands Migratory Birds Ordinance 1980  
 Coral Sea Islands Territory Endangered Species Ordinance 1980  
 Coral Sea Islands Territory Migratory Birds Ordinance 1980  
 Norfolk Island Endangered Species Act 1980  
 Norfolk Island Migratory Birds Act 1980  
 Territory of Heard Island and McDonald Islands Endangered Species Ordinance 1980  
 Territory of Heard Island and McDonald Islands Migratory Birds Ordinance 1980  
 Territory of Ashmore and Cartier Islands Migratory Birds Ordinance 1980  
 Antarctic Marine Living Resources Conservation Act 1981  
 Territory of Heard Island and McDonald Islands Environment Protection and Management Ordinance 1987  
 The Commonwealth Government applies the Western Australia Wildlife Conservation Act 1950 and the Western Australia Fish Resources Management Act 1994 as Commonwealth Law in the Cocos (Keeling) Islands Territory and the Christmas Island Territory

Other relevant Conventions/ Agreements (apart from CMS) to which your country is a Party:

> International Convention for the Regulation of Whaling 1946 (ICRW)  
 Convention on Wetlands of International Importance Especially as Waterfowl Habitat 1971 ("Ramsar Convention")  
 Convention for the Protection of the World Cultural and Natural Heritage 1972  
 Convention on International Trade in Endangered Species of Wild Flora and Fauna 1973 (CITES)  
 United Nations Convention on Law of the Sea 1982 (UNCLOS)  
 Convention on Biological Diversity 1992 (CBD)  
 Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR) 1982  
 Convention for the Conservation of Southern Bluefin Tuna 1993  
 Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean  
 Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean  
 Southern Indian Ocean Fisheries Agreement  
 The Agreement for the Establishment of the Indian Ocean Tuna Commission  
 The Antarctic Treaty 1959  
 Protocol on Environmental Protection to the Antarctic Treaty ('Madrid Protocol') 1991  
 Convention for the Conservation of Antarctic Seals 1972  
 United Nations Framework Convention on Climate Change 1992  
 The Vienna Convention for the Protection of the Ozone Layer (1985)

The Montreal Protocol on Substances that Deplete the Ozone Layer (1989)  
 Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa 1994  
 Agreement between the Government of Australia and the Government of the People's Republic of China for the Protection of Migratory Birds and their Environment (CAMBA)  
 Agreement between the Government of Australia and the Government of Japan for the Protection of Migratory Birds in Danger of Extinction and their Environment (JAMBA) Migratory Birds in Danger of Extinction and their Environment  
 Agreement between the Government of Australia and the Government of the Republic of Korea on the Protection of Migratory Birds (ROKAMBA)  
 East Asian-Australasian Flyway Partnership (EAAFP)  
 Agreement on the Conservation of Albatrosses and Petrels (ACAP)  
 Kyoto Protocol to the United Nations Framework Convention on Climate Change  
 International Plan of Action for the Conservation and Management of Sharks (IPOA-Sharks)

National policy instruments (e.g. national biodiversity conservation strategy, etc.):

> National Strategy for the Conservation of Australia's Biological Diversity  
 National Strategy for Ecologically Sustainable Development  
 National Action Plan on Salinity and Water Quality  
 Wetlands Policy of the Commonwealth Government of Australia  
 Wildlife Conservation Plan for Migratory Shorebirds  
 Recovery Plan for marine turtles  
 Recovery Plan for Fin Whale  
 Recovery Plan for Sei Whale  
 Recovery Plan for Blue Whale  
 Recovery Plan for Humpback Whale  
 Recovery Plan for Southern Right Whale  
 Australia's National Plan of Action for the Conservation and Management of Sharks (NPOA-Sharks 1 and 2)

## **CMS Agreements/MoU**

**Please indicate whether your country is part of the following Agreements/MoU. If so, please indicate the competent national institution**

### **Wadden Sea Seals (1991)**

#### **Wadden Sea Seals (1991)**

Non Range State

### **EUROBATS (1994)**

#### **EUROBATS (1994)**

Non Range State

### **ASCOBANS (1994)**

#### **ASCOBANS (1994)**

Non Range State

### **AEWA (1999)**

#### **AEWA (1999)**

Non Range State

### **ACAP (2001)**

#### **ACAP (2001)**

Party

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## **Gorilla Agreement (2008)**

**Gorilla Agreement (2008)**  
 Non Range State

## **ACCOBAMS (2001)**

**ACCOBAMS (2001)**  
 Non Range State

## **Siberian Crane MoU (1993/1999)**

Siberian Crane MoU (1993/1999)  
 Non Range State

## **Slender-billed Curlew MoU (1994)**

Slender-billed Curlew MoU (1994)  
 Non Range State

## **Atlantic Turtles MoU (1999)**

Atlantic Turtles MoU (1999)  
 Non Range State

## **Middle-European Great Bustard MoU (2001)**

Middle-European Great Bustard MoU (2001)  
 Non Range State

## **IOSEA Marine Turtles MoU (2001)**

IOSEA Marine Turtles MoU (2001)  
 Signatory

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**Bukhara Deer MoU (2002)**

Bukhara Deer MoU (2002)

Non Range State

**Aquatic Warbler MoU (2003)**

Aquatic Warbler MoU (2003)

Non Range State

**West African Elephants MoU (2005)**

West African Elephants MoU (2005)

Non Range State

**Pacific Islands Cetaceans MoU (2006)**

Pacific Islands Cetaceans MoU (2006)

Signatory

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## **Saiga Antelope MoU (2006)**

Saiga Antelope MoU (2006)  
 Non Range State

## **Ruddy-headed Goose MoU (2006)**

Ruddy-headed Goose MoU (2006)  
 Non Range State

## **Monk Seal in the Atlantic MoU (2007)**

Monk Seal in the Atlantic MoU (2007)  
 Non Range State

## **Southern South American Grassland Birds MoU (2007)**

Southern South American Grassland Birds MoU (2007)  
 Non Range State

## **Dugong MoU (2007)**

Dugong MoU (2007)  
 Signatory

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**Western African Aquatic Mammals MoU (2008)**

Western African Aquatic Mammals MoU (2008)

Non Range State

**Birds of Prey (Raptors) MoU (2008)**

Birds of Prey (Raptors) MoU (2008)

Non Range State

**High Andean Flamingos MoU (2008)**

High Andean Flamingos MoU (2008)

Non Range State

**Sharks MoU (2010)**

Sharks MoU (2010)

Signatory

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**South Andean Huemul MoU (2010)**

South Andean Huemul MoU (2010)

Non Range State

**Involvement of other government departments/NGOs/private sector**

1. Which other government departments are involved in activities/initiatives for the conservation of migratory species in your country? (Please list.)

> Australian Government Departments including:

Department of Agriculture  
Australian Fisheries Management Authority  
Torres Strait Regional Authority  
Great Barrier Reef Marine Park Authority

State/Territory environment departments and national parks and wildlife services including:

Office of Environment and Heritage, Department of Premier and Cabinet (New South Wales)  
Department of Primary Industries (New South Wales)  
Department of Environment and Heritage Protection (Queensland)  
Department of National Parks, Recreation, Sport and Racing, (Queensland)  
Department of Natural Resources, Environment, the Arts and Sport (Northern Territory)  
Department of Primary Industries, Fisheries and Mines (Northern Territory)  
Department of Parks and Wildlife (Western Australia)  
Department of Fisheries (Western Australia)  
Department of Environment and Natural Resources (South Australia)  
Department of Primary Industries and Resources (South Australia)  
Department of Sustainability and Environment (Victoria)  
Department of Primary Industries (Victoria)  
Department of Primary Industries, Parks, Water and Environment (Tasmania)

2. If more than one government department is involved, describe the interaction/relationship between these government departments:

> Australia has a Federal Government with 8 separate State or Territory Governments. The State and Territory agencies have responsibility for issues within their jurisdictions.

The Australian Government has responsibility for matters in the national interest, and for non-state/territory areas, which includes the marine environment from 3 nautical miles out to the edge of the Exclusive Economic Zone (EEZ). The State and Territory agencies have responsibility for issues within their jurisdictional borders,

including State/Territory waters.

All commercial fisheries with an export component are assessed under the EPBC Act. The assessments consider the impacts of the fishery on target and non-target species caught, and on the impacts of fishing on the broader marine environment, including on migratory species. Additionally, commercial fisheries operating in Commonwealth waters may also be assessed to determine the impacts of fishing operations on EPBC Act listed species, including migratory species. Conditions and/or recommendations may be placed on fisheries accreditations requiring actions to be taken within a specified period of time to improve the management of particular issues within the fishery, for example in relation to interactions with migratory species. Fisheries management agencies also monitor protected species interactions, including with EPBC Act listed migratory species, and report these to the Department of the Environment.

More information on these interactions for key species is described below.

#### MIGRATORY WATERBIRDS

There are a number of mechanisms that allow government departments to interact on migratory water bird issues in Australia.

The Australian Bird and Bat Banding Scheme (ABBBS) provides national coordination and data collation/repository services for all migratory bird and bat research conducted within Australia's national jurisdiction. Research support is also provided for countries in the region that do not have their own banding scheme. The information curated by the ABBBS forms the basis for the inclusion of species under the EPBC Act migratory species list, and is the basis of national reports for migratory bird agreements with Japan, China and the Republic of Korea. There are currently 57 research projects investigating migratory species that are supported by the ABBBS.

The Wetlands and Aquatic Ecosystems Subgroup (WAESG) of the Ramsar Implementation Committee provides nationally coordinated advice to the Australian Government and State and Territory Ministers on wetland-related and aquatic ecosystem related issues. The WAESG also advises the Australian Government and State and Territory Ministers on the implementation of the Ramsar Convention in Australia.

The Australian Government also has in place bilateral migratory bird agreements with Japan, China and the Republic of Korea. Each of these agreements provide for the protection of migratory birds from take or trade except under limited circumstances, the protection and conservation of habitats, the exchange of information, and building cooperative relationships.

A Wildlife Conservation Plan for 36 species of migratory shorebirds was adopted by the Australian Government in February 2006. The Plan sets out the research and management actions necessary to support the survival of migratory shorebirds in Australia.

#### MIGRATORY SHARKS

All Appendix I and II species are protected under Australia's primary piece of environmental legislation, the EPBC Act.

The Australian Government also has a Threatened Species Scientific Committee (TSSC) which is a Ministerial-appointed Committee created under the EPBC Act. The Committee provides advice on the assessment of nationally threatened species, including sharks, and ecological communities, recovery planning and threat abatement and any other issues relevant to the survival of native species and communities.

There are a number of groups containing government, industry and non-government representatives that provide advice to the Commonwealth on consistent approaches to shark conservation, protection and management.

One such group is the Shark-plan Representative Group (SRG) which was established in 2013 to oversee and report on the implementation of Australia's second National Plan of Action for the Management and Conservation of Sharks - Shark-Plan 2. It meets annually, to review, monitor and report on the implementation of Shark-Plan 2 actions by jurisdictions, oversees preparation of advice to the Committee on Fisheries (FAO COFI) of the United Nations Food and Agriculture Organisation on Australian shark conservation commitments and identifies and provides advice on progress in addressing gaps in shark management and conservation issues as they relate to Shark-Plan 2.

Membership of SRG includes representatives from the Northern Territory and state fisheries agencies, the Australian Fisheries Management Authority, the Department of Agriculture, the Department of the Environment, the Australian Bureau of Agricultural and Resource Economics and Sciences, the Great Barrier Reef Marine Park Authority, the Fisheries Research Development Corporation, commercial and recreational

fishers and environmental non-government organisations.

Following is a summary of relevant activities which are undertaken by various Australian State and Territory governments:

#### SHARKS

The Australian Government has funded the CSIRO to undertake a project using novel genetic and electronic tagging techniques to estimate the size and trends of the east coast white shark population based on known juvenile aggregations; and also funded a project through the CSIRO and the Western Australian Government to identify aggregation sites on the west and south coasts of Australia using a variety of survey methodologies such as aerial and on-water surveys and the use of acoustic tagging. These programs will help establish the size and status of the Australian white shark population.

The WA Department of Fisheries has established a network of acoustic receivers throughout south-western Australian waters (including off Perth) to collect data relating to movements of white sharks that have been 'tagged' with acoustic transmitters through various research projects around Australia. While data collected from this Shark Monitoring Network project (and other associated acoustic telemetry infrastructure in the region, see section 6.2) is initially intended to inform public safety agencies on risks associated with encountering white sharks, it is hoped that, in the longer term, the project may provide additional information on migratory patterns, population distribution and possibly relative abundance.

Commercial fishers in Western Australia are required to report interactions with protected species in statutory returns. Recorded interactions are reported in the Department of Fisheries annual State of the Fisheries reports. In 2011/12, the WA demersal gillnet and demersal longline fisheries recorded 22 interactions with white sharks (19 were reportedly released alive). These fisheries have reported mean annual landings of ca.4 tonnes of shortfin mako sharks (*Isurus oxyrinchus*) since 2000, although none have been reported during the last two years.

In 2013, the Western Australian Government announced a new shark mitigation strategy. One component of this strategy involves the setting of baited drum lines along popular Perth metropolitan and south-west beaches. The WA Government reports on catches of all sharks and incidental bycatch as part of this program. No white sharks were caught during the program. Five shortfin mako sharks (*Isurus oxyrinchus*) have been caught in this program.

The Department of the Environment provided funding to the Western Australian Department of Parks and Wildlife to develop a revised wildlife management program for the whale shark interaction industry in Western Australia. The program 'Whale shark management with particular reference to Ningaloo Marine Park' was published in October 2013. The management of this industry continues to be world class, and provides a model for whale shark tourism as a conservation tool in other countries.

The Commonwealth Director of National Parks has an agreement with the Western Australian Department of Parks and Wildlife to co-manage the Ningaloo Commonwealth Marine Reserve. As part of the ABA, the Commonwealth has provided funding for whale shark research (including archival and satellite tagging), and auditing, compliance and education related to commercial and recreational whale shark tourism. The Western Australian Department of Parks and Wildlife provides the Commonwealth with information on tour numbers and whale shark encounters collected by whale shark operators via an electronic monitoring system (EMS) and other information as appropriate.

The whale shark tourism industry provides images of whale sharks, as a condition of licensing, to the Western Australian Department of Parks and Wildlife. Parks and Wildlife collate the images and provide on request to organisations including the Australian Institute of Marine Science, Hubbs Seaworld and ECOCEAN to help develop a better understanding of whale shark populations, movements and visitation trends to Western Australia.

The South Australian Department of Environment, Water and Natural Resources has funded research on the interactions of white sharks with cage diving tourist operators off South Australia. The SA Research and Development Institute is undertaking research on the movements of white sharks around blue fin tuna mariculture sea cages near Port Lincoln, South Australia, and other SA coastal waters.

Support is being provided by Fisheries Queensland to long-term research determining the fine-scale movement patterns of tagged large sharks (including white sharks) in Queensland nearshore areas using satellite and acoustic technologies. The occurrence of white sharks in relation to physical characteristics, including water temperature, is being investigated.

Protected species reporting through daily fisher logbooks is mandatory in Queensland commercial fisheries and no white sharks have been reported through this program since 2006.

The NSW Department of Primary Industries (NSW DPI) reports on catches of all sharks (including white sharks) and incidentally captured cetaceans, pinnipeds, sirenians and marine turtles in the NSW Shark Meshing (Bather Protection) Program. Commercial fishers are also required to report interactions with threatened or protected species through commercial catch and effort logbook, and also report any catch of shark on a daily basis. Recreational fishers can also report interactions with threatened or protected species via an online reporting form. All fishers are prohibited from retaining threatened species of fish and any fish caught must be returned to the water immediately with least possible harm.

NSW DPI introduced revised catch and effort reporting arrangements for NSW commercial fisheries in July 2009. A key feature of the revised reporting arrangements included detailed species reporting (at the species, or in some cases genus, level). To effectively monitor shark catch, fishers in the NSW Ocean Trap and Line Fishery are required to submit their NSW Daily Catch and Effort Record within 24 hours of landing any shark catch. In addition, a comprehensive shark and ray identification guide was produced and distributed to assist in correctly identifying and subsequently reporting landed sharks.

NSW DPI collects information regarding interactions with threatened and protected species as part of scientific observer programs and a mandatory reporting system. NSW DPI implemented mandatory reporting of threatened / protected species interactions for all commercial fisheries in 2005. Implementation was supported by the development and distribution of a Threatened and Protected Species Identification Guide.

NSW DPI has implemented a cross-fishery scientific observer program based on a framework that identifies the highest priority methods for observation to ensure that resources are directed towards the methods that pose the greatest risks.

NSW DPI has commenced a Fisheries Research and Development Corporation (FRDC) funded project titled 'Shark Futures: sustainable management of the NSW whaler shark fishery'. This project is investigating stock structure and population size of the main species caught and their movements using acoustic and satellite telemetry which will help develop spatial management options such as time and area closures, as well as looking at options to reduce unwanted catch.

NSW DPI is currently collaborating with Macquarie University in the support of a PhD project that will provide: (i) a thorough study of targeted commercial fishing for large whaler sharks in NSW waters; and (ii) detailed information concerning the local biology of sandbar, spinner and common black tip sharks and dusky whaler. This will be done using data and samples collected as part of the completed NSW DPI observer-based research projects and will employ the latest analytical technologies for examining age, growth, reproduction and population genetics of sharks. The suite of information obtained will form a biological basis for future management arrangements for these shark populations.

The NSW Department of Primary Industries also reviews bag and size limits for species of fish and invertebrates targeted by recreational fishers approximately every 5 years, but may also introduce changes between reviews to address issues such as newly listed threatened and/o migratory species. Some of the current proposals under consideration to reduce the potential impact on shark stocks include:

Species: Tiger, Mako, Smooth Hammerhead, Porbeagle, Blue, Thresher and Whaler shark species

Option 1: Reduce bag limit from 5 in total to a combined bag limit of 1 and a boat limit of 2 of these shark species

Option 2: Reduce bag limit from 5 in total to a combined bag limit of 1 and a boat limit of 1 of these shark species

Species: All other shark and ray species

Option 1: Reduce bag limit from 5 (all other sharks and rays) to a combined bag limit of 2

Option 2: Reduce bag limit from 5 (all other sharks and rays) to a combined bag limit of 1

#### MARINE TURTLES AND DUGONG

In 2013-14, the Australian Government committed to implement a Dugong and Turtle Protection Plan, which will work to enhance the protection of marine turtles and dugongs in Far North Queensland and the Torres Strait.

The Dugong and Turtle Protection Plan is a component of the Reef 2050 Plan, and includes seven elements to be delivered by various Australian Government agencies and divisions, including the Department of the Environment, Department of the Prime Minister and Cabinet (PM&C) and the Australian Crime Commission (ACC).

Under the Dugong and Turtle Protection Plan, the Australian Government has committed to:

1. A specialised Indigenous ranger programme for marine conservation and strengthened enforcement and compliance;
2. An ACC investigation into the poaching and transportation of turtle and dugong meat;

3. Tripling of penalties for poaching and illegal trade of turtle and dugong meat;
4. Marine debris clean-up initiatives;
5. Support for the Cairns and Fitzroy Island Turtle Rehabilitation Centres;
6. A National Protection Strategy for Marine Turtles and Dugong, including an updated Recovery Plan for Marine Turtles of Australia and other policy documents for marine turtles, dugong and their habitats under the EPBC Act;
7. Working with Indigenous leaders towards an initial two-year opt-in moratorium on the taking of dugongs.

The 2014–15 Budget has approved funding for the Dugong and Turtle Protection Plan and full implementation will commence in the 2014–15 financial year.

The Australian Government is currently revising the Recovery Plan for Marine Turtles in Australia, with input from State and Territory Government agencies, Indigenous representatives, scientists and conservation non-governmental organisations.

An intergovernmental dugong task force between the Australian and Queensland Governments was established in November 2010 to address the sustainability of dugongs in the waters adjacent to Queensland. The primary role of the task force was to undertake a comprehensive review of existing programs of dugong conservation and management and associated community engagement and to recommend areas for improvement. Agencies involved in the taskforce included the then Department of Sustainability, Environment, Water, Population and Communities, the Great Barrier Reef Marine Park Authority, the then Queensland Department of Environment and Resource Management, the Torres Strait Regional Authority, the Australian Fisheries Management Authority and the Queensland Department of Employment, Economic Development and Innovation.

The Australian Government provides funds to State and Territory Government agencies as well as research institutions, non-government organisations and local communities to undertake on-ground turtle and dugong conservation and management activities, such as removal of feral pigs from turtle nesting areas, monitoring the temperature of marine turtle nesting beaches, and studies on the movements, distribution and abundance, population genetics and life history of turtles and dugongs.

The Australian Government Working on Country program provides funding to Indigenous organisations in the Northern Territory, Queensland and north-western Australia engaged in sea management activities to employ full-time equivalent Indigenous rangers. These rangers undertake activities that include marine debris collection and dugong and turtle related activities. Turtle related activities can include recording turtle observations, feral pig control at nesting sites, tagging, measuring, weighing, DNA sampling, fitting transmitters and recording nest sites.

The Caring for our Country Reef Rescue Indigenous Land and Sea Country Partnerships Program provided funding over five years from December 2008 to expand the Traditional Use of Marine Resource Agreement program across the Great Barrier Reef catchment; develop sea country plans; strengthen communications between key stakeholders; and build a better understanding of Traditional Owner issues relevant to the management of the Great Barrier Reef Marine Park. The Program, delivered by the Great Barrier Reef Marine Park Authority, included enhanced compliance as one of the five activity areas in this Program, where activities addressed illegal activities that threaten cultural and natural heritage values and culturally important species such as dugong and green turtle.

Through its Reef program, the Australian Government committed a further \$10 million to fund the Land and Sea Country Partnership programme for another five years from July 2013. The focus of the programme primarily remains the same – enhancing compliance, encouraging the use of Traditional Land Use Management Agreements and development of new agreements and the continuation of community education.

The Australian Government recently announced the merger of Caring for our Country and Landcare to create a National Landcare Programme to reflect local and regional priorities. In addition, Working on Country will be maintained and rebadged as the Indigenous Landcare Programme.

The Raine Island Turtle Breeding Recovery Project aims to protect and maintain the world's largest green turtle rookery, and is managed by the Threatened Species Unit of the Queensland Department of Environment and Heritage Protection (EHP). The steering committee for this project includes the Great Barrier Reef Marine Park Authority (GBRMPA), the Queensland Department of National Parks, Recreation, Sport and Racing (NPRS) and Traditional Owners.

The Dugong Indigenous Management Project has been developed as a partnership in sustainable management of dugong and marine turtles in Queensland waters. The project is funded through the Commonwealth 'Caring for our Country' program and is being delivered through the Threatened Species Unit

of EHP.

The Queensland Marine Wildlife Strandings and Mortality Program (StrandNet) maintains records of stranded and dead marine wildlife (turtles, dugongs, whales, dolphins and sharks), and is managed by the Threatened Species Unit of EHP. Major partners in this program are GBRMPA and NPRSR. Information is also supplied by the Queensland Department of Fisheries, Forestry and Agriculture (DFFA).

The NSW Department of Primary Industries is currently investigating alternative techniques for capturing estuarine crabs (i.e. mud crabs and blue-swimmer crabs), as the existing gear occasionally catches turtles. It will also examine the practice of overnight setting of crab nets by recreational fishers, and consider the need for fewer nets per fisher.

## WHALES

The Australian Whale Sanctuary was established under the EPBC Act to give formal recognition to the high level of protection and management afforded to cetaceans in Commonwealth marine areas and prescribed waters. The sanctuary includes all Commonwealth waters from the 3 nautical mile state waters limit to the boundary of the EEZ. It is an offence to kill, injure, possess, trade, treat or interfere with a cetacean in Australian waters.

The EPBC Act provides for recovery plans to be made for the purposes of the protection, conservation and management of listed threatened species. There are five recovery plans for Australia's threatened whale species: the humpback, Southern right, blue, sei and fin whales (2005-2010). A five year review of the plans was finalised in May 2010, and the recommendations were that the plans should be revised.

The Southern right whale (*Eubalaena australis*) recovery plan was revised in 2011 and builds upon the previous plan and has been presented in a new format that conforms with the International Whaling Commission's (IWC) 'Conservation Management Plan' format, while meeting the requirements of a recovery plan under the EPBC Act. The Blue Whale recovery plan and the Humpback recovery plan are currently being finalised.

The Australian Government regularly consults and coordinates with State and Territory governments in the development and implementation of policies and guidelines. Each year a Government Cetacean Management Workshop is held with representatives from the States and Northern Territory attending. The main areas of coordination are in the areas of cetacean emergency response (stranding and disentanglement practices), the regulation of whale watching, ship strikes and research.

In 2013 a National Guidance document on the management of whale and dolphin entanglement and stranding incidents in Australian waters was jointly developed by the Australian Government, states and the Northern Territory Governments. The information gathered in the document provides a series of 'best practice' principles for the management of whale and dolphin entanglements and strandings.

The Australian Large Whale Disentanglement Network was established in 2002 and comprises representatives from all state and territory governments. It aims to promote better disentanglement practices and response through an effective national communications and information-sharing network. Furthermore, the network aims to identify measures for minimising the occurrence of large whale entanglements.

The Australian National Guidelines for Whale and Dolphin Watching 2005 were developed jointly by the Australian and all State and Territory Governments and provide for a consistent national policy for the management of whale and dolphin watching. On 5 October 2011 the Department released a paper titled *Whalewatching in Commonwealth Waters - Review of management arrangements for public comment*. The paper proposed management responses including a review of the 'Guidelines' to ensure they reflect the best available science, accommodate community and industry needs, promote international best practice and deliver environmental, social and economic benefits. Macquarie University was engaged in 2013 to undertake a review of scientific literature examining the impacts of whale and dolphin watching. This review recommends one change to the existing guidelines in relation to vessel approach distances for dolphins. It also recommends a number of other actions to support the implementation of the guidelines. Following on from these review processes the intention is for the Department to update the Guidelines.

The Australian Marine Mammal Centre was established by the Australian Government in 2006 and represents the first major national research centre focused on understanding, protecting and conserving whales, dolphins, seals and dugongs. It coordinates Australia's research to provide scientific research and advice to support marine mammal conservation, management and policy priorities.

On 6 December 2008, the Australian Government announced that it was investing a total of \$32 million over six years to 2013-14 for a comprehensive package of non-lethal whale research and other marine mammal

conservation initiatives. The program has enhanced the capacity for non-lethal cetacean research and conservation, nationally, regionally and globally, leading to better whale conservation and management domestically and internationally.

Measures for minimising the risk of ship strikes with cetaceans' has been taken up by the Marine Environment Protection Committee (MEPC) of the International Maritime Organization (IMO). This decision was made following a joint submission from Belgium, Australia, Italy, IFAW, IUCN and UNEP/CMS/ASCOBANS Joint Secretariat. The MEPC has adopted an IMO guidance document for use by IMO Member Governments in addressing the issue of ship strikes. The Department of the Environment works with the Australian Maritime Safety Authority (AMSA) on this issue. Australia will continue to participate in the IWC's Ship Strikes Working Group to help develop a 5-Year Strategic Plan on ship strikes to reduce the risks of ship strikes across the world. The EPBC Act requires that all marine operators in the EEZ, including the Navy, report any ship strikes.

Underpinning this international work the Department drafted a National Vessel Strike Strategy in 2013. Whilst ship strike is not considered to be a common occurrence in Australia currently, increasing vessel traffic and whale numbers have the potential to increase the risk of ship strike impacts in the near future. The strategy is proposing to cover a range of marine mega fauna including whales, dolphins, dugongs and turtles. A public comment period and further consultation with key stakeholders including the states and Northern Territory will occur prior to the finalisation of the document.

In 2012 Marine bioregional plans were prepared under section 176 of the EPBC Act for the South-west, North-west, North and Temperate East marine regions in Commonwealth waters around Australia. Each marine bioregional plan describes the marine environment and conservation values of the region, identifies and characterises the pressures affecting these conservation values and identifies regional priorities and outlines strategies to address them. As part of this process, biologically important areas for a range of cetaceans have been identified in state and Commonwealth waters.

In May 2013, the Queensland Department of Environment and Heritage Protection introduced new legislation for the conservation and management of marine mammals in Queensland. The new legislation provides a more contemporary and responsive management framework for marine mammals in Queensland, based on the most up-to-date scientific research.

The dual State and Commonwealth Great Australian Bight Marine Park has partnered with the South Australian Research and Development Institute to implement an annual aerial monitoring project (2013 onwards) to study the spatial and temporal habitat usage at the Head of the Bight southern right whale aggregation. An additional AMMC funded project with GAB MP, SARDI and other partners will be undertaken this year, utilising satellite telemetry tagging data to determine baseline offshore migratory routes for the southern right whales in the HOB aggregation.

On 13 May 2014 the Australian Government announced \$2 million funding for the Whale and Dolphin Protection Plan. This Plan will consist of the following three components:

1. The National Whale Stranding Action Plan will provide assistance for state and territory government agencies to respond to whale stranding and entanglement events around Australia. In addition the Plan will provide funding for research into strandings and entanglements.
2. The Dolphin Conservation Plan will include the provision of support for organisations working to protect dolphins. It will also provide funding for research on dolphin species.
3. The National Whale Trail will include grants to build or improve facilities for land based whale watching, as well as associated communication products.

3. Has a national liaison system or committee been established in your country?

No

4. List the main non-governmental organizations actively involved in activities/initiatives for the conservation of migratory species in your country, and describe their involvement:

> MIGRATORY WATERBIRDS

Australasian Wader Studies Group (AWSG) monitors migratory shorebird populations, provides training support in the Asia Pacific region, and publishes the Stilt and Tattler (journal and newsletter of the Flyway). The AWSG monitors shorebird populations through a program of counting and banding to collect data on changes at a local, national and international scale. The group studies migrations using banding, colour flagging and collection of biometric data. The group is beginning to use light sensitive geo-locators attached to birds to accurately map migration strategies of species, and it is hoped that this work may largely replace more intensive and invasive methods such as colour flagging. AWSG and state-based Wader Study Group volunteer members monitor shorebird populations as part of the Birds Australia Shorebirds 2020 program, which builds on the 25 years of data gathered by the biennial Population Monitoring Project (PMP). This project



is generating valuable data that are captured in a database developed with assistance from the Australian Government. The AWSG journal, *The Stilt*, is produced twice a year and contains scientific papers and reviews. A quarterly newsletter, *The Tattler*, contains topical news items about shorebirds, fieldwork, regional group activities and conservation issues.

University of Queensland (UQ) began in July 2010 a three year Australian Research Council linkage grant project titled 'Understanding and reversing the rapid declines in Australia's shorebirds'. The overarching aim of this project is to develop theory and empirical analyses to diagnose causes of declines in migratory shorebird species, and to then apply this knowledge to their conservation. The specific project tasks are to:

1. robustly identify population trends in shorebirds across Australia by utilizing and developing novel state-space modelling techniques;
2. identify environmental and biological correlates of population trends to determine the spatial domain and nature of drivers of any declines in migratory shorebirds of the East Asian – Australasian Flyway;
3. conduct a detailed analysis of the local spatial patterns and causes of decline in Moreton Bay, Queensland. Together with the analysis above at larger spatial scales, then develop general theory for distinguishing local and remote causes of declines in migratory species, and;
4. discover how to optimally monitor and manage migratory shorebirds in Australia.

Humane Society International (HSI) has a long history of working to secure the conservation of migratory seabirds in Australia. HSI was a key organisation that worked to secure the Agreement for the Conservation of Albatross and Petrels (ACAP) and has served as part of the Australian Government Delegations to various ACAP meetings. HSI continues to play an active role in promoting seabird by-catch mitigation measures within Regional Fisheries Management Authorities (RFMOs) and within Australia's domestic fisheries.

World Wide Fund for Nature (WWF Australia) was funded by the Australian Government's Natural Heritage Trust to coordinate the Community-based conservation action at Australia's nationally important shorebird sites project. The project aimed to accelerate on-ground conservation of priority shorebird sites in Australia by:

1. Conducting a range of awareness raising and capacity building activities targeted at community groups, local governments, State agency branches and local and regional media, in collaboration with a number of conservation organisations. Emphasis was given to the values of shorebird sites and the range of options open to advance conservation of these sites; and
2. Implementing on-ground management actions to enhance the protection status of sites where possible; developing management plans for sites and ensuring shorebird considerations are included in catchment and natural resource management plans; and by undertaking on-ground management and rehabilitation works and bird counting programs to enhance existing inventory data collected. A devolved grants program formed an important part of the project as a means to facilitate action.

The project also included the following:

1. A training and targeted extension program for NRM stakeholders, and also initiates flagship conservation projects; and
2. Design of monitoring programs to evaluate success of projects in achieving conservation outcomes.

Birds Australia is dedicated to the conservation, study and enjoyment of Australia's native birds and their habitats. The Birds Australia Group has established four Special Interest Groups (one of which specifically works on migratory shorebirds, see below) to conduct and coordinate studies and projects on birds, as well as to monitor, and make recommendations on their conservation status.

In partnership with WWF, Birds Australia is funded by the Australian Government to conduct the Shorebirds 2020 project, a nationally coordinated population monitoring programme which aims to collect data on numbers of shorebirds in a manner that can be utilised to aid their conservation and management. This project has broad support of shorebird and wetland conservation groups and annually harnesses thousands of hours of volunteer effort in monitoring migratory shorebirds. As a condition on the grant, the Department has unfettered access to the data generated.

The Western Australian Department of Environment and Conservation, in collaboration with Shorebirds 2020 (<http://www.shorebirds.org.au>) and Birds Australia conducted 111 sites statewide counts and online data entry between 2008 and 2010.

Reports produced for, or in collaboration with, the West Australian Department of Environment and Conservation include:

- Onton K, Maurer G and Weller D (2013). North West Cape Welcomes Shorebirds: Identifying habitat and building conservation capacity. Unpublished report to the Department of Parks and Wildlife. BirdLife Australia, Perth, Western Australia.

The Broome Bird Observatory was established by Birds Australia in 1988 as a research and education facility. A key aim of the observatory is to raise awareness and promote the conservation of the migratory shorebirds that use Roebuck Bay, Western Australia.

The Wetlands Centre, in Newcastle, New South Wales, was established in 1985 to promote scientific research, the conservation and rehabilitation of wetlands and their flora and fauna, and to raise awareness of these issues. The Centre was funded by the Australian Government's Natural Heritage Trust to coordinate The Australian Shorebird Education Program. The program developed links with wetland education centres and schools in the East Asian-Australasian Shorebird Flyway in order to share information and develop awareness-raising materials and links.

The Wetlands centre is also responsible for hosting, with support from the Australian Government, the Feathers, Flyways and Friends website. Feathers, Flyways and Friends is a collaborative project between shorebird educators along the East Asian-Australasian Flyway. It builds on the popular education document "Feathers, Flyways and Fastfood" by Dr Margaret Rowe and is a companion resource to the US based flyway site "Shorebird Sister Schools Program". The website is now available in 8 languages that are spoken within the East Asian Australasian Flyway. The URL of the website is:  
<http://www.wetlands.org.au/shorebirds/index.htm>

Driscoll, P, Milton D. And Harding S (2012) Waterbird and Shorebird Surveys of the Bowling Green Bay Ramsar Site. Funded by the Australian and Queensland Government through the Queensland Wetlands Program.

#### MIGRATORY SHARKS

University of Florida researchers are studying the impact of large sharks on marine turtle foraging and habitat use in Shark Bay, Western Australia.

The Australian Institute of Marine Science and ECOCEAN are conducting research on whale sharks in the Ningaloo region of Western Australia. They are deploying telemetry devices to track whale shark migration, collecting images for photo-identification, collecting stereo-video footage for accurate morphometric measurements, tissue sampling for genetic (to characterise population structure) and isotopic analyses (to characterise nutritional ecology), oceanographic measurements and collections of potential diet items to assist with characterising the nutritional ecology.

James Cook University researchers are conducting a multi-disciplinary study looking at the life history of shark and ray species; the spatial ecology of sharks and rays, especially in relation to marine protected areas and environmental effects; the ecological role of sharks and ecosystem dynamics; the effects of fishing on sharks and rays and an assessment of shark and ray populations.

The Humane Society International (HSI), TRAFFIC International, and the World Wide Fund for Nature (WWF) make an important contribution to advancing shark conservation in Australia. These organisations have been vocal in promoting the inherent vulnerability of sharks to population decline and in championing Australia's position to support the listing of all nominated sharks, which included some migratory species, at the last Conference of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). They also promoted the listing of Porbeagle and Mako sharks at the 9th CMS CoP and supported the inclusion of all seven shark species in the non-binding CMS Sharks MoU agreed in February 2010.

HSI was responsible for nominating Ningaloo Reef for National Heritage Protection under Australia's EPBC Act.

HSI continues to play an active role in promoting shark bycatch mitigation measures within Regional Fisheries Management Authorities (RFMOs) and within Australia's domestic fisheries.

#### MARINE TURTLES

The North Australian Indigenous Land and Sea Management Alliance (NAILSMA) is coordinating the Saltwater People Network Project. This project brings Indigenous communities, ranger groups and non-Indigenous experts together to improve the management of turtle and remote coastal and aquatic environments across northern Australia. Funding has been provided for this project over four years through the Australian Government Caring for our Country program.

The Northern Gulf Resource Management Group Limited is conducting the Local Indigenous Solutions for a Global Problem in Northern Australia project. The project has been expanded to target ghost nets across the northern coast of Australia by training Indigenous communities on the removal of ghost nets from the environment and the rescue and rehabilitation of injured wildlife. Funding has been provided over four years through the Australian Government's Caring for our Country program.

James Cook University (JCU) received funding in 2011 under the National Environmental Research Program

(NERP) to conduct research to inform the management of marine turtles and dugongs. Specifically movements of animals determined by satellite tracking and examining the ecological role of green turtles using stable isotope analysis. JCU also did a broad-scale aerial survey in Nov 2011 to determine the distribution and abundance of dugongs in waters south of Cooktown following the extreme weather events of late 2010 and early 2011.

A consortium comprising researchers from the University of Canberra, James Cook University and the University of Melbourne are developing a population model for the northern Great Barrier Reef stock of the green turtle, *Chelonia mydas*. This population model is being developed to better understand the dynamics of this genetic stock and to be able to do scenario testing of the impacts of climate change and indigenous harvest. This project, because of funding shortfalls and staffing issues, is yet to be completed.

The University of Queensland (UQ) conducted an assessment of disease and environmental impact on the health of Loggerhead and Green turtles in Queensland, Australia. On-going surveillance of disease prevalence can act as an 'early-warning system' for changes in the host-disease-environment paradigm. Further work is recommended into the refining of diagnostic monitoring tools, such as screening tests for turtles suspected of heavy infectious spirorchidiasis, an improved understanding of the meaning of anomalous blood biochemistry and haematology results, and a concerted effort should be made to examine the causes of morbidity and mortality in *Caretta caretta*, *Dermochelys coriacea*, *Eretmochelys imbricata*, *Natator depressus*, and *Lepidochelys olivacea* turtles: important sentinels of marine health.

A partnership between the Northern Territory Department of Natural Resources, Environment and the Arts, the Carpentaria Ghost Nets program and other Indigenous communities monitors marine debris in the Northern Territory. The surveys are a community-based collaboration between Indigenous people, community groups, sea rangers and scientists to survey on an annual basis at seven locations. The debris monitoring program complements the Carpentaria Ghost Nets Program, which is primarily focused on the collection and disposal of nets and the prevention and rescue of entangled wildlife within the Gulf of Carpentaria.

A partnership of the Western Australian Department of Parks and Wildlife, in partnership with the Cape Conservation Group, coordinate the Ningaloo Turtle Program in Ningaloo Marine Park. The project has four key objectives: (1) Estimate the abundance and distribution of nests on key sections of beach over specified time intervals for each species; (2) Identify the relative significance of specific nesting beaches for each species of turtle; (3) Estimate levels of disturbance on nests; and (4) Determine the impact of human interaction on nesting success of each species of turtle.

Humane Society International (HSI): HSI undertakes a number of activities relating to turtles and dugongs conservation, advocacy work and providing grants to developing countries to campaign on illegal trade of turtle parts and products. HSI continues to play an active role in promoting turtle bycatch mitigation measures within Regional Fisheries Management Authorities (RFMOs) and within Australia's domestic fisheries.

Office of Environment and Heritage (OEH) NSW: maintains a database of marine turtles that have either come ashore sick or injured in NSW or have required active human intervention.

Representatives of the Gudjuda Reference Group Aboriginal Corporation have monitored green turtle populations in Edgecumbe Bay near Bowen in north Queensland through a catch-and-tag program since 1998. Over this time, more 1,100 individual turtles have been tagged and released. This voluntary work was critical in identifying the presence of fibropapilloma virus in turtles, the first time this disease has been recorded in Great Barrier Reef waters. Many partners have been involved in and supported this program including WWF-Australia, James Cook University, Queensland Government turtle researchers, and community groups such as the Queens Beach Action Group and the Sea Turtle Foundation.

Inginoo Aboriginal community. Approximately 1100 nesting flatback turtles were surveyed (tagged, measured and assessed for nesting success) on western Cape York Peninsula in partnership with the Threatened Species Unit of EHP.

## WHALES

A number of non-government organisations are actively involved in initiatives for the conservation of whales in Australia, including (in alphabetical order): the Australian Marine Conservation Society, Australian Whale Conservation Society, International Fund for Animal Welfare, Greenpeace Australia Pacific, Humane Society International, Murdoch University Cetacean Research Group, Organisation for the Rescue and Research of Cetaceans in Australia, PEW Environment Group, Project Jonah, Minke Whale Project, Whale and Dolphin Conservation Australasia, Whales Alive, World Society for the Protection of Animals, and World Wide Fund for Nature Australia.

The Australia Government holds bi-annual meetings of the Cetaceans Non-Government Organisation (NGO) Roundtable. Cetaceans NGO Roundtable meetings are chaired by Australia's Commissioner to the

International Whaling Commission. The Roundtable is an important vehicle to help ensure that the Government is well informed of any concerns and issues which civil society has with respect to domestic and international policies and priorities on cetacean conservation issues. Meetings are timed to facilitate discussion on major cetacean conservation issues such as the lead up to, and outcomes from Commission meetings, latest results of non-lethal scientific research on cetaceans, developments concerning Southern Ocean whaling and reporting on Australia's International Court of Justice legal case against Japan's whaling in the Southern Ocean. The regular Cetaceans NGO Roundtable meetings foster good working relationships, as well as providing opportunities to encourage the support of non-government organisations, where appropriate, in the advancement of government policies.

In 2013 the International Fund for Animal Welfare (IFAW) conducted the first systematic boat-based survey to look at the diversity, distribution and presence of whales and dolphins in an area to the west of Kangaroo Island, in the eastern Great Australian Bight off South Australia. IFAW's fieldwork involved both visual and acoustic techniques. This southern region of Australia is being explored by the oil and gas industry for further development.

There has been a range of short and long-term research projects conducted on whales and dolphins in the Great Barrier Reef Marine Park. These include:

1. The study of dwarf minke whales (*Balaenoptera acutorostrata* subspecies) in the northern Great Barrier Reef and opportunistic observation of other cetacean species.
2. An assessment of connectivity and interchange among five humpback whale aggregation areas along the East Australian migratory corridor.
3. Conservation genetics of Queensland's inshore dolphins: Australian Snubfin, Indo-Pacific humpback and bottlenose dolphins.
4. Anthropogenic Contaminants in Queensland's Coastal Dolphins: Levels and Toxicological Effects.
5. Status of inshore dolphins in North Queensland waters.
6. Passive acoustics of coastal dolphins: developing passive acoustic methodology for monitoring Australian snub-fin and Indo-Pacific humpback dolphins.
7. Dwarf minke whale migration and habitat pilot study.
8. Taxonomic resolution of the spinner dolphin complex in Australasian waters.

Many of these projects directly inform the management of these species within the Great Barrier Reef Marine Park.

#### DUGONG

Humane Society International (HSI) strongly advocated for Australia to pursue an international agreement / MoU for the Conservation and Management of Dugong under the CMS. HSI has also nominated a number of key threatening processes to Australia's National and State environment legislation, such as boat strike and entanglement in marine debris as a means of drawing attention to the threats and securing mitigation of them.

#### University of Queensland (UQ)

Researchers from UQ are undertaking a long-term longitudinal study of dugongs in Moreton Bay. Other research areas include determining critical reproductive parameters for a subtropical dugong population and gene tagging dugongs of Southern Queensland to determine population dynamics. Research is also focussing on determining baseline health and disease parameters for wild dugongs in urban and non-urban waters of northern Australia.

#### James Cook University (JCU)

Researchers from JCU have been undertaking studies on the distribution and abundance, movements, life history parameters, population genetics of dugongs in northern Australia. A number of collaborative research projects are continuing with Indigenous communities including monitoring dugongs, and applying GIS techniques to develop spatially explicit population models.

#### Murdoch University

A postdoctoral research fellowship awarded to a marine scientist at Murdoch University is continuing. This project is developing unmanned aerial survey methods for surveying marine mammal populations, including dugongs.

4a. Please provide detail on any devolved government/overseas territory authorities involved.

> N/A

5. Describe any involvement of the private sector in the conservation of migratory species in your country:

> The private sector plays a role in the conservation of migratory species in Australia. A key manner in which the private sector is engaged in migratory species protection is through its involvement in environmental impact assessment, operation of interaction activities under licence and codes of conduct and through

adoption of actions to improve their conservation, eg by implementing measures to mitigate bycatch of migratory species in fisheries.

6. Note any interactions between these sectors in the conservation of migratory species in your country:

> MARINE TURTLES

The Gorgon Project is developing the Gorgon and Jansz-lo gas fields, located within the Greater Gorgon area, between 130 - 220 kilometres off the northwest coast of WA. The Gorgon Project is operated by Chevron. The Gorgon Project includes installation of a liquefied natural gas production facility on the eastern side of Barrow Island, treatment and disposal of waste products.

The Project is a significant threat to the long term viability of the Barrow Island flatback turtle rookery and as such, a Conservation Program has been developed to increase protection to the Northwest Shelf flatback turtle population away from Barrow Island. The Conservation Program addresses the long term management of marine turtles that utilise east coast beaches, establish baselines and monitoring programs, identify management triggers, specify design features to manage and reduce impacts (including light and noise) and define studies aimed at studying the ecology of marine turtles and project related stressors.

The Gorgon Joint Venturers have agreed to fund the Conservation Program at a cost of \$62.5 million for the life of the Proposal (60 years). The schedule of payments will be \$1.5 million per annum for the first five years (2010-2015), then \$1 million per annum for the next 55 years.

A consultancy has been funded to satellite tag marine turtles caught in long lining operations off eastern Australia to provide information on the pelagic stage of the life cycle, engage fishers in turtle conservation and investigate the impact on turtles of being caught in longline fishing operations.

WHALES

The Behavioural Response of Australian Humpback Whales to Seismic Surveys is a major research project aimed at understanding how humpback whales respond to seismic surveys and to provide information that will allow these surveys to be conducted efficiently with minimal impact on whales. The four year project is a collaboration of leading researchers from several Australian institutions, and is funded by the international oil and gas industry's E&P Sound and Marine Life Joint Industry Program (JIP) and the U.S. Bureau of Ocean Energy Management (BOEM).

Commercial tour boat operators conducting whale or whale shark interactions provide data on interactions that assists regulators and researchers understand whale and whale shark visitation to Australian waters.

## **I(b). Information about involved Authorities**

Identify the ministry, agency/department or organization that is responsible for leading actions relating to Appendix I species

### 1- Birds

> Australian Government Department of the Environment

### 2- Aquatic Mammals

> Australian Government Department of the Environment

### 3- Reptiles

> Australian Government Department of the Environment

### 4- Terrestrial Mammals

> N/A There are no CMS Appendix I listed terrestrial mammals to which Australia is a range state

### 5- Fish

> Australian Government Department of the Environment

## II. Appendix I species

### 1. BIRDS

#### 1.1 General questions on Appendix I bird species

1. Is the taking of all Appendix I bird species prohibited by the national implementing legislation cited in Table I(a) (General Information)?

Yes

If other legislation is relevant, please provide details:

> The protection afforded by the national implementing legislation is complemented under the Great Barrier Reef Marine Park Zoning Plan 2003. All species within the Class Aves are protected from take within the Great Barrier Reef Marine Park, which extends to low water.

1a. If the taking of Appendix I bird species is prohibited by law, have any exceptions been granted to the prohibition?

No

2. Identify any obstacles to migration that exist in relation to Appendix I bird species:

By-catch

Habitat destruction

Wind turbines

Pollution

2a. What actions are being undertaken to overcome these obstacles?

> BYCATCH

Seabird bycatch mitigation has already been considered in Australia, albeit primarily in longline fisheries. Australia has implemented the Threat Abatement Plan for the Incidental Catch (or By-Catch) of Seabirds During Oceanic Longline Fishing Operations, which was released in 1998 in response to longline fishing being listed as a Key Threatening Process in July 1995 under the then Endangered Species Protection Act 1992 (now the EPBC Act). The Threat Abatement Plan (TAP) aims to address the primary threat to seabirds (of being taken as bycatch and killed or seriously injured), including endangered albatross and petrel species.

The 1998 TAP was renewed in 2006 and that plan was reviewed during 2011. Public consultation occurred during 2013 and the plan is currently being finalised.

A package of fisheries regulations was implemented to give effect to the TAP, including the requirement for all longliners operating south of 25°S to use bycatch mitigation measures, such as using a bird-scaring line, weighting of branch lines and retention of offal during line setting.

Development and implementation of measures to reduce seabird bycatch in other fisheries, such as those using pelagic trawl gear, are also underway.

#### HABITAT DESTRUCTION

The Australian Government's key piece of environmental legislation, the EPBC Act, provides the platform for the Australian Government to operate a world-class environmental assessment and approvals system. The EPBC Act regulates actions that are likely to have a significant impact on matters of national environmental significance, including the destruction of the habitat of listed migratory species and actions which negatively impact on the ecological character of a Ramsar listed wetland. Under the EPBC Act, such actions are subject to a rigorous and transparent environmental assessment and approval process. The provisions of the EPBC Act are implemented in accordance with best practice environmental assessment and approvals, ensuring that all listed migratory species under the Act are afforded strong protection.

The Australian Government, in cooperation with the Tasmanian Government, conducted a five year, AUD\$25m alien invasive pest eradication project at Macquarie Island to eliminate rabbits, rats and mice which were extensively degrading the breeding habitat of seabirds and other animals. In April 2014, after nearly three years of monitoring with no sign of surviving individual rabbits, rats or mice, the project was declared a success.

The Australian and South Australian Governments are implementing a long-term plan for the Coorong, Lakes Alexandrina and Albert Ramsar site through the joint investment of up to \$200M on actions to maintain and improve the ecological character of the site. The site is an important wetland habitat for waterbirds, with 57 species listed within international and national migratory agreements.

A number of activities being undertaken via the project seek to improve the ability of the site to support

migratory species into the future. The implementation of these actions by South Australia to support migratory waterbirds will complement the Australian Government's implementation of initiatives including the Murray-Darling Basin water reform via the Water Act 2007, the provision of environmental water to the site and others across the Murray-Darling Basin.

#### WIND TURBINES

Actions such as proposed wind turbine developments that are likely to have a significant impact on a listed migratory species are subject to a rigorous environmental assessment and approval process under the EPBC Act. In deciding whether to approve a proposed wind turbine development, consideration must be given to the precautionary principle.

#### MARINE POLLUTION

The National Plan to Combat Pollution of the Sea by Oil and other Noxious and Hazardous Substances (known as the National Plan) is a national integrated Government and industry organisational framework enabling effective response to marine pollution incidents. The Australian Maritime Safety Authority (AMSA) manages the National Plan, working with State/Northern Territory governments, the shipping, oil, exploration and chemical industries, emergency services to maximise Australia's marine pollution response capability, mitigating impacts on Australian wildlife (including migratory birds).

2b. Please report on the progress / success of the actions taken.

> Refer above

2c. What assistance, if any, does your country require in order to overcome these obstacles?

> N/A

3a. What actions have been taken to prevent, reduce or control factors that are endangering or are likely to further endanger bird species beyond actions to prevent disruption to migrating behaviour?

> All CMS listed migratory bird species for which Australia is a range state are protected under the EPBC Act.

All commercial fisheries with an export component are assessed under the EPBC Act. The assessments consider the impacts of the fishery on target and non-target species caught, and on the impacts of fishing on the broader marine environment, including on migratory species. Additionally, commercial fisheries operating in Commonwealth waters may also be assessed to determine the impacts of fishing operations on EPBC Act listed species, including migratory species. Conditions and/or recommendations may be placed on fisheries accreditations requiring actions to be taken within a specified period of time to improve the management of particular issues within the fishery, for example in relation to interactions with migratory species. Fisheries management agencies also monitor protected species interactions, including with EPBC Act listed migratory species, and report these to the Department of the Environment.

Australia has also undertaken a number of more specific actions, including:

The EPBC Act provides for the development of Wildlife Conservation Plans, which set out the research and management actions necessary to support the conservation and survival of listed migratory, marine, cetacean or conservation dependant species. The Wildlife Conservation Plan for Migratory Shorebirds was the first such plan developed under the Act in 2006 and is currently being updated. The revised Wildlife Conservation Plan for Migratory Shorebirds will build on existing measures to protect migratory shorebirds and the habitats important for their survival in Australia and throughout the East Asian-Australasian Flyway (EAAF). This will be achieved through a range of activities including appropriate legislation and policy frameworks, research and monitoring programs, development and implementation of site management actions, and community education and awareness programs.

A new Recovery Plan for Albatrosses and Giant-Petrels is being prepared under the EPBC Act.

In 2006, Australia adopted a revised Threat Abatement Plan for the incidental catch (or by-catch) of seabirds during oceanic longline fishing operations to minimise the effect on seabirds of bycatch in longline fisheries, a listed Key Threatening Process under the EPBC Act. Implementation of the provisions in the plan have significantly reduced seabird bycatch and associated mortality in Australian longline fisheries. That plan is currently being reviewed.

A Recovery Plan for 10 species of seabirds listed as threatened has been prepared under the EPBC Act. This plan can be found at: <http://www.environment.gov.au/biodiversity/threatened/publications/seabirds.html>

A 'Threat abatement plan for the impacts of marine debris on vertebrate marine life' (the Plan) was finalised in 2009. The Plan identifies a framework for the coordinated and integrated management of marine debris and to address current knowledge gaps. It also details specific measures to prevent and mitigate the impacts



of harmful marine debris on the marine environment, including migratory birds. This plan can be found at:  
<http://www.environment.gov.au/biodiversity/threatened/publications/tap/marine-debris.html>

Guidelines for Managing Visitation to Seabird Breeding Islands have been prepared by the Great Barrier Reef Marine Park Authority (GBRMPA). These guidelines can be found at the following website:  
[http://www.gbrmpa.gov.au/corp\\_site/info\\_services/publications/seabirds/](http://www.gbrmpa.gov.au/corp_site/info_services/publications/seabirds/)

GBRMPA has now developed an operational policy to manage 'take' of protected species from the Great Barrier Reef Marine Park. This policy can be found at:  
[http://www.gbrmpa.gov.au/\\_\\_data/assets/pdf\\_file/0011/7868/protected\\_species\\_policy\\_guidelines.pdf](http://www.gbrmpa.gov.au/__data/assets/pdf_file/0011/7868/protected_species_policy_guidelines.pdf)

3b. Please report on the progress / success of the actions taken.

> Refer above.

3c. Describe any factors that may limit action being taken in this regard:

> N/A

3d. What assistance, if any, does your country require to overcome these factors?

> N/A

## 1.2 Questions on specific Appendix I bird species

In the following section, using the table format below, please fill in each Appendix I bird species for which your country is considered to be a Range State. Please complete each table as appropriate, providing information in summary form. Where appropriate, please cross-reference to information already provided in national reports that have been submitted under other conventions (e.g. Convention on Biological Diversity, Ramsar Convention, CITES). (Attach annexes as necessary.)

### Species name: *Puffinus creatopus*

1. Please provide published distribution reference:

> Marchant & Higgins 1990. Handbook of Australian, New Zealand and Antarctic Birds Vol.1. Oxford Uni Press, Melbourne.

2a. Summarise information on population size (if known):

unclear

2b. Summarise information on distribution (if known):

unclear

3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

Species protection

> All Appendix 1 species are protected under the EPBC Act.

4. If no activities have been carried out for this species in the reporting period, what has prevented such action being taken?

> Species has been recorded as a vagrant on one occasion.

5. Describe any future activities that are planned for this species:

> N/A

### Species name: *Calidris canutus rufa*

1. Please provide published distribution reference:

> Not a range state for this species.

### Species name: *Numenius madagascariensis*

1. Please provide published distribution reference:

> Marchant & Higgins 1990. Handbook of Australian, New Zealand and Antarctic Birds Vol.1. Oxford Uni Press, Melbourne.

2a. Summarise information on population size (if known):

decreasing

> Past, recent and ongoing declines of 30-49% in 3 generations (30 yrs) based on survey data and habitat loss.

2b. Summarise information on distribution (if known):

decreasing

> Widespread, but decreasing.

3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

Research

> Australian Research Council project (Richard Fuller, Uni of Qld).

Monitoring

> Australia's National Shorebird Monitoring Program - Shorebird 2020.

Species protection

> All Appendix 1 species are protected under the EPBC Act.

Other

> Reference: The Action Plan for Australian Birds, 2010 (Garnett, Szarbo and Dutson)

4. If no activities have been carried out for this species in the reporting period, what has prevented such action being taken?

> N/A

5. Describe any future activities that are planned for this species:

> Currently being considered for listing under the EPBC Act as a threatened species.

### **Species name: *Tringa guttifer***

1. Please provide published distribution reference:

> Marchant & Higgins 1990. Handbook of Australian, New Zealand and Antarctic Birds Vol.1. Oxford Univ Press, Melbourne.

2a. Summarise information on population size (if known):

unclear

2b. Summarise information on distribution (if known):

unclear

3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

Species protection

> All Appendix 1 species are protected under the EPBC Act.

4. If no activities have been carried out for this species in the reporting period, what has prevented such action being taken?

> The species is vagrant.

5. Describe any future activities that are planned for this species:

> N/A

Miscellaneous information or comments on Appendix I birds in general:

> N/A

## **2. AQUATIC MAMMALS**

### **2.1 General questions on Appendix I aquatic mammals**

1. Is the taking of all Appendix I aquatic mammals species prohibited by the national implementing legislation cited in Table I(a) (General Information)?

Yes

1a. If the taking of Appendix I aquatic mammals species is prohibited by law, have any exceptions been granted to the prohibition?

Yes

If Yes, please provide details (Include the date on which the exception was notified to the CMS Secretariat pursuant to CMS Article III(7)):

> Some legislation provides specifically for traditional hunting of dugongs. For example, the Australian Native Title Act 1993 permits Native Title holders to hunt dugongs for the purposes of satisfying their personal, domestic or non-commercial communal needs. The Torres Strait Fisheries Act 1984 allows for the traditional take of marine turtles and dugongs by traditional inhabitants of Torres Strait. Some State and Territory legislation may also provide for the traditional take of wildlife. In addition, some legislation enables traditional take of wildlife by Native Title holders either by authority, agreement or exemption.

## 2. Identify any obstacles to migration that exist in relation to Appendix I aquatic mammals:

- By-catch
- Collision with fishing traffic
- Pollution
- Illegal hunting

### 2a. What actions are being undertaken to overcome these obstacles?

> Australia actively supports the development of range state arrangements under CMS for dugongs and cetaceans in accordance with approaches set out in relevant recovery plans and recommendations of CMS. With Australia's support, a regional agreement for the conservation of the dugong and their habitats was signed in October 2007 and now has 27 signatories. Similarly, a Memorandum of Understanding for the Conservation of Cetaceans and their Habitats in the Pacific Islands Region was adopted in 2006 and currently has 22 signatories.

Australian States work closely with the Commonwealth Government to ensure ongoing conservation of migratory cetacean species, including undertaking annual counts of Humpbacks.

Better identification of humpback whale breeding and calving habitat in the Great Barrier Reef (Smith et al 2013)

Better understanding of the efficacy of acoustic pingers to mitigate inshore dolphin bycatch in mesh nets (Berg Soto et al. 2013)

Concerns about the conservation and management of Australian inshore dolphins have been raised due to the species' vulnerability to anthropogenic threats and the rapid development of the coastline throughout much of species' range. Despite these concerns, the assessment of snubfin dolphins' national conservation status is currently constrained by the lack of adequate information on distribution, population size and trend. To address this information gap the Australian Government has developed a coordinated research framework to assess the national conservation status of Australian snubfin dolphins (*Orcaella heinsohni*) and other tropical inshore dolphins. This document will guide the delivery of the necessary information required for a future assessment of the conservation status of the Australian Snubfin dolphin and other inshore dolphin species under the EPBC Act. It should also serve to ensure that as funding sources arise they will be directed towards a planned, coordinated and strategic research strategy for this species. Abundance estimates of snubfin dolphins will be available for some key sites in the Kimberley region of Western Australia from post graduate research.

Debate as to whether the Australian stocks of Indo-Pacific Humpback dolphins are a distinct species (Mendez et al 2013 - Integrating multiple lines of evidence to better understand the evolutionary divergence of humpback dolphins along their entire distribution range: a new dolphin species in Australian waters? *Molecular Ecology*).

Concerns about the impact of coastal industrial developments and inshore dolphins (Cagnazzi D, Parra GJ, Westley S, Harrison PL (2013) At the Heart of the Industrial Boom: Australian Snubfin Dolphins in the Capricorn Coast, Queensland, Need Urgent Conservation Action. *PLoS ONE* 8(2): e56729. doi:10.1371/journal.pone.0056729)

In cooperation with the Secretariat for the Pacific Regional Environment Programme (SPREP), Australia has been working with Pacific Island Countries and Territories to implement the CMS-SPREP Dugong Action Plan and the Whale and Dolphin Action Plan and supporting neighbouring CMS parties through management training.

### FISHERIES INTERACTION INCLUDING BYCATCH

Australia, through the Australian Marine Mammal Centre, has employed a Project Coordinator: Marine Mammal – Fishery Interactions, whose main focus is to assist surface longline fisheries in the Australian and Indo-Pacific regions to develop mitigation options to reduce catch depredation by toothed whales.

Incidental mortality of cetaceans (mostly dolphins) caught in fishing nets is considered one of the greatest threats to the conservation of these species. State and Territories work closely with fishery authorities in an effort to mitigate the impacts of bycatch. Improved fishing methods and release of dolphins have substantially

reduced bycatch mortality.

AFMA has also extended some actions taken in September 2011 in response to reports of dolphin mortalities in waters adjacent to South Australia from gillnet fishing.

These measures include: the Dolphin Gillnet Closure which shuts an area off South Australia to gillnetting; the Dolphin Observation Zone adjacent to the closed area with mandatory monitoring for gillnet fishing; and allowing for the use of hooks by affected gillnet concession holders in both the closed area and monitoring zone.

The Western Australian Department of Fisheries produced a Draft Bycatch Action Plan for the Pilbara Fish Trawl Interim Managed Fishery, Fisheries Management Paper, No. 244 in 2010. Results of independent observations of catches and subsurface mitigation measures of modified trawl nets in the Pilbara Fish Trawl Interim Managed Fishery are reported in Fisheries Research Report No. 244 (2014).

A Fisheries Research and Development Corporation funded project is currently underway to conduct a cost benefit analysis of gear modifications in WA's West Coast Rock Lobster Fishery and to analyse spatial and temporal movements of whales.

The South Australian Department of Environment and Natural Resources is near to completing updated regulations and policy for marine mammal interactions.

Research project led by David Welch to determine the efficacy of break-away panels in mesh nets to minimise entanglement of marine megafauna.

#### ILLEGAL HUNTING

The Australian Government Working on Country program provides funding to Indigenous organisations in the Northern Territory, Queensland and north-western Australia engaged in sea management activities to employ full-time equivalent Indigenous rangers. These rangers undertake activities that include marine debris collection and dugong and turtle-related activities. Turtle-related activities can include recording turtle observations, feral pig control at nesting sites, tagging, measuring, weighing, DNA sampling, fitting transmitters and recording nest sites.

The Commonwealth Government's Land and Sea Country Partnerships Programme continues to encourage the development and implementation of Traditional Use of Marine Resources Agreement program across the GBR. Such expansion provides additional means for Government's to work in partnership with Traditional Owners on compliance related matters, including addressing illegal hunting activities and processes. This program has recently been extended until 2018.

The North Australian Indigenous Land and Sea Management Alliance (NAILSMA) is coordinating the Saltwater People Network Project. This project brings Indigenous communities, ranger groups and non-Indigenous experts together to improve the management of turtle and remote coastal and aquatic environments across northern Australia. Funding has been provided for this project over four years through the Australian Government Caring for our Country program.

#### COLLISION WITH FISHING TRAFFIC

The Australian Government has established the Australian National Guidelines for Whale and Dolphin Watching 2005 which limits all human activity around cetaceans, including the distance that a vessel may approach cetaceans.

The Australian Government is also developing a National Ship Strike Reduction Strategy including improving reporting mechanisms and identification of possible mitigation strategies.

The Queensland Government has implemented 'Go Slow' areas in Marine Parks to protect dugong (and marine turtles) from the risk of vessel collision.

The NSW Government records cetacean stranding and vessel strike information into a long term database.

Special management arrangements relating to vessel interactions with humpback cows and calves will be introduced in the newly created Lalang-garram/Camden Sound Marine Park in WA's Kimberley region.

#### POLLUTION

Injury and fatality to vertebrate marine life caused by ingestion of, or entanglement in harmful marine debris was listed as a 'key threatening process' under Australia's national environmental protection legislation, the EPBC Act in 2003. In 2009, the Australian Government finalised a threat abatement plan that seeks to minimise the impacts of marine debris, including interactions with marine mammals. The States and

Territories are also proactive in preparing for and undertaking disentanglement operations in an effort to free cetaceans of life-threatening entanglements.

#### NOISE IMPACTS

The development of seismic survey guidelines under the EPBC Act to provide a set of standards to minimise the risk of acoustic injury to whales in the vicinity of seismic surveys.

#### HABITAT DESTRUCTION

Proposed actions that are likely to have a significant impact on a listed migratory species and potential degradation or destruction of their habitat are subject to a rigorous environmental assessment and approval process under the EPBC Act. In deciding whether to approve a proposed action, consideration must be given to the precautionary principle.

#### STRANDING

The NSW Government records scientific information from stranding events including genetic and skeletal information.

The Australian Marine Mammal Centre hosts the National Marine Mammal Data Portal for the collation of national sightings, strandings and entangling data for cetaceans.

A number of papers relating to strandings have been published:

- Coughran, D. K., Stiles, I. and Mawson, P. R. (2012). Euthanasia of beached humpback whales using explosives. *Journal of Cetacean Research and Management* 12(1): 137-144; and
- Coughran, D. K., Gales, N. J. and Smith H. C. (2013). A note on the spike in recorded mortality of humpback whales (*Megaptera novaeangliae*) in Western Australia. *Journal of Cetacean Research and Management* 13(2): 105-108.

2b. Please report on the progress / success of the actions taken.

> A Tropical inshore dolphin workshop was held on 4-5 May 2010 that aimed to develop a conservation strategy for the Australian Snubfin and Indo-Pacific Humpback dolphins. A follow up meeting was held in December of 2012 with a final Inshore Dolphin Research Framework being produced in 2014 and the Methods for Assessment of the Conservation Status of Australian Inshore Dolphins drafted.

#### COLLISION WITH FISHING TRAFFIC

The National Vessel Strike Strategy is currently under development.

A review of how the Australian National Guidelines for Whale and Dolphin Watching 2005 are applied in Commonwealth waters is currently underway.

#### POLLUTION

The development of marine debris monitoring surveys, including identifying the source of ghost nets, and clean up programs has been partly funded through the Australian Government's Caring for Country.

CSIRO is undertaking a 3 year research project from 2011-14 to better understand the threat posed by marine debris to Australian wildlife and ecosystems, and to develop a national risk assessment tool for wildlife species affected by marine debris. The research is underpinned by a national survey of where - and how - marine debris accumulates along Australian coastlines. TeachWild, a national research and education program developed by Earthwatch Australia together with CSIRO and Shell Australia, is contributing data to the national survey. To date, almost 5,000 students from more than 50 Australian schools have participated. The national survey data is being collected using a statically rigorous beach cleanup methodology that allows for detailed analysis of factors such as marine debris type, occurrence and source.

GhostNets Australia, an alliance of indigenous communities from coastal northern Australia have focused on removal of derelict fishing nets from the marine environment and engagement with Indonesian communities to better understand the regional origins of these "ghost" nets and to begin to address the problem. Through innovative engagement with the broader community, this group have significantly raised the national profile of marine debris issues.

The Australian Government's Border Protection Command has an established tasking to detect and report all large marine debris, particularly derelict fishing nets, in Australian waters.

Community action is a major factor in abating the immediate threats posed to wildlife by marine debris. Under the Caring for our Country Initiative, approximately \$5 million has been directed to community and other organisations for efforts to remove marine debris from coastal environments. Volunteer beach cleanups, organised through non government organisations such as the Tangaroa Blue Foundation and Keep Australia

Beautiful have removed and documented marine debris from the coastline. Community groups are developing and implementing source reduction plans for items of debris that are persistent problems. These plans encourage the community to identify and lobby stakeholders and bring about positive change.

Amendments to the International Maritime Organisation's International Convention for the Prevention of Pollution from Ships (MARPOL) Annex V came into force on 1 January 2013. The amendments prohibit the discharge of all garbage from ships into the sea (except under very specific circumstances). This reverses the presumption that garbage may be discharged into the sea based on defined distances from shore and the nature of the garbage. The amendments also list requirements for garbage management plans on ships and port reception facilities for receiving waste. MARPOL is implemented in Australia through the Protection of the Sea (Prevention of Pollution from Ships) Act 1983.

#### NOISE

Seismic surveys are a source of acoustic noise for cetaceans within Australian waters. Under the EPBC Act if a proposed seismic survey has or is likely to have a significant impact on a matter of national environmental significance (such as listed cetacean species), that action should be referred to the Australian Government Environment Minister for assessment.

2c. What assistance, if any, does your country require in order to overcome these obstacles?

> Information and active participation by other countries to minimise marine debris entering oceans; and further reporting of sites where large concentrations of marine debris are known to occur (eg in Australia we have areas where we know at certain times of the year large concentrations of ghost nets will wash up on shore).

3. What are the major pressures to Appendix I aquatic mammals species (transcending mere obstacles to migration)?

- Pollution
- By-catch
- Other (please specify)

> Whaling, Whale Watching

3a. What actions have been taken to prevent, reduce or control factors that are endangering or are likely to further endanger aquatic mammals species beyond actions to prevent disruption to migrating behaviour?

> All commercial fisheries with an export component are assessed under the EPBC Act. The assessments consider the impacts of the fishery on target and non-target species caught, and on the impacts of fishing on the broader marine environment, including on migratory species. Additionally, commercial fisheries operating in Commonwealth waters may also be assessed to determine the impacts of fishing operations on EPBC Act listed species, including migratory species. Conditions and/or recommendations may be placed on fisheries accreditations requiring actions to be taken within a specified period of time to improve the management of particular issues within the fishery, for example in relation to interactions with migratory species. Fisheries management agencies also monitor protected species interactions, including with EPBC Act listed migratory species, and report these to the Department of the Environment.

WHALING OPERATIONS within the region target Appendix I species that migrate through Australian waters: The Australian Government opposes all forms of commercial whaling and supports the global moratorium on commercial whaling. Australia is undertaking concerted domestic and international efforts (including within the International Whaling Commission) to bring an end to commercial whaling.

On 31 May 2010, the Australian Government lodged its application instituting proceedings in the International Court of Justice against Japan's whaling in the Southern Ocean. The Court delivered its judgment in the Whaling Case on Monday 31 March 2014. The full written judgment is available from the Court's website.

#### WHALE WATCHING

The Australian National Guidelines for Whale and Dolphin Watching 2005 outline the standards that allow people to observe and interact with whales and dolphins in a way that ensures animals are not harmed.

#### ENTANGLEMENT

The Australian Government has developed a National Guidance on the Management of Whale and Dolphin Incidents in Australian Waters document in consultation with the states and Northern Territory. The information gathered in this document provides a series of "best practice" principles to support cetacean conservation and management agencies, and help them to confidently face the challenge of managing whale and dolphin incidents such as strandings and entanglements.

Research to track oceanic currents and determine sources and pathways of marine debris.

Research to better understand the threat posed by marine debris to Australian wildlife and ecosystems, and to

develop a national risk assessment tool for wildlife species affected by marine debris.

GhostNets Australia, an alliance of indigenous communities from coastal northern Australia have focused on removal of derelict fishing nets from the marine environment and engagement with Indonesian communities to better understand the regional origins of these "ghost" nets and to begin to address the problem. Through innovative engagement with the broader community, this group have significantly raised the national profile of marine debris issues.

The Australian Government's Border Protection Command has an established tasking to detect and report all large marine debris, particularly derelict fishing nets, in Australian waters.

The Australian Large Whale Disentanglement Network comprises representatives from all State and Territory governments. It aims to promote better disentanglement practices and response through an effective national communications and information-sharing network. Furthermore, the network aims to identify measures for minimising the occurrence of large whale entanglements.

Disentanglement techniques are constantly being reviewed and improved to ensure best practice and that the safest standards are used.

Under the recently announced Whale and Dolphin Protection Plan, a National Whale Stranding Action Plan will be developed to provide assistance for state and territory government agencies to respond to whale stranding and entanglement events around Australia. In addition the Plan will provide funding for research into strandings and entanglements.

Dugong Protection Areas seek to reduce the incidence of entanglements of dugong in fishing nets through area closures, restrictions and net attendance rules. Incidental benefits are likely to occur for listed inshore dolphins, including *Sousa chinensis* and *Orcaella heinsohni*.

Preliminary research to trial the effectiveness of break-away panels on set mesh nets to minimise capture of marine mammals and turtles.

The NSW Government has adopted revised protocols within the NSW Shark Meshing (Bather Protection) Program to reduce the probability of entanglement of cetaceans by use of early warning strategies and pingers.

Commercial fishers operating in Western Australia's Pilbara Fish Trawl Interim Managed Fishery must fit exclusion grids in their nets, which help to mitigate the capture of marine mammals (such as dolphins). A study on independent observations of catches and subsurface mitigation measures of modified trawl nets in the fishery has recently been completed (FRR 244). A code of best practice and standard vessel operating procedures to ensure a consistent standard of operations relating to mitigating protected species interactions will be developed.

Researchers are trialling the use of modified gear in Western Australia's West Coast Rock Lobster Fishery for the purpose of mitigating whale entanglement with rock lobster pots. The Industry Code of Practice for Reducing Whale Entanglements has recently been revised and updated.

### 3b. Please report on the progress / success of the actions taken.

#### > WHALING

The International Court of Justice delivered its judgment in the Whaling Case on Monday 31 March 2014. The full written judgment is available from the Court's website. Australia welcomes the decision of the International Court of Justice in the Whaling Case. Both Australia and Japan have stated that they will accept the decision of the Court. The Government continues to be committed to the protection of whales and dolphins and demonstrates this by developing and implementing best practice management in Australian waters, and strongly advocating for the protection of cetaceans in the International Whaling Commission.

At the most recent International Whaling Commission meeting (July 2012) Australia worked with other likeminded pro-conservation member countries to progress key conservation initiatives and governance reforms, including: the endorsement of conservation management plans for the southwest Atlantic southern right whale and the southeast Pacific southern right whale; finalisation of the Five-year Strategic Plan for Whale watching; improved transparency of the Commission's budget processes; agreement to move to a biennial meeting cycle; and establishment of a Bureau to oversee the Commission's intersessional work program.

#### WHALE WATCHING

In May 2013, Australia jointly hosted with the United States an International Whaling Commission 'Whale

Watch Operators Workshop' in Brisbane, Australia. The workshop brought together whale watch operators, scientists and government officials from over 20 countries to include whale watch industry views in the IWC's '5 year Strategic Plan' and web-based 'living handbook' for whale watching. The group discussed research, capacity building, development and management and included case studies and best practice examples from around the world, and listings for all relevant whale watching organisations. Participants also discussed potential benefits of increased collaboration between researchers and whale watching operators and the IWC's role in the industry to help establish and disseminate best practice, management and regulation.

The Australian National Guidelines for Whale and Dolphin Watching 2005 provide for a consistent national policy for the management of whale and dolphin watching.

On 5 October 2011 the Department released a paper titled Whalewatching in Commonwealth Waters - Review of management arrangements for public comment. The paper proposed management responses including a review of the 'Guidelines' to ensure they reflect the best available science, accommodate community and industry needs, promote international best practice and deliver environmental, social and economic benefits. Following on from these review processes the intention is for the Department to update the Guidelines.

3c. Describe any factors that may limit action being taken in this regard:

> Inherent difficulties with the monitoring, compliance and enforcement of a large EEZ.

3d. What assistance, if any, does your country require to overcome these factors?

> N/A

## 2.2 Questions on specific Appendix I aquatic mammals

In the following section, using the table format below, please fill in each Appendix I aquatic mammals species for which your country is considered to be a Range State. Please complete each table as appropriate, providing information in summary form. Where appropriate, please cross-reference to information already provided in national reports that have been submitted under other conventions (e.g. Convention on Biological Diversity, Ramsar Convention, CITES). (Attach annexes as necessary.)

### Species name: *Physeter macrocephalus*

1. Please provide published distribution reference:

> Bannister JL, Kemper CM and Warneke RM (1996) The Action Plan for Australian Cetaceans, Commonwealth of Australia, Canberra, Global Cetacean Summary Report (<http://www.environment.gov.au/coasts/publications/global-cetacean-summary.html>).

2a. Summarise information on population size (if known):

not known

> There is no current accepted abundance estimate for sperm whales in Australian waters. The species is listed as migratory under Australia's national environmental protection legislation, the EPBC Act.

2b. Summarise information on distribution (if known):

unclear

> In Australian waters, the distribution of sperm whales is not well documented however the species has been recorded along the eastern and southern coastlines.

3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

Education / awareness rising

> The Australian Government has comprehensive information available on cetaceans on the following website <http://www.environment.gov.au/topics/marine/marine-species/cetaceans>. A pamphlet outlining information on the Australian Whale Sanctuary, Whale and Dolphin Incident Management, Whale Watching Guidelines and whale and dolphin identification diagrams is available.

The NSW Government has committed significant resources to educating the community about cetacean conservation and migratory pathways. This commitment includes:

- Publications such as Wild about whales ;

(<http://www.environment.nsw.gov.au/resources/nature/wildAboutWhales.pdf>)

- Providing access to web-based information ( <http://www.wildaboutwhales.com.au>)

- Use of social media applications (Twitter, Facebook) to provide current and accurate information about cetaceans migrating through NSW waters.

Species protection

> The Australian Whale Sanctuary was established in accordance with the EPBC Act, to give formal recognition of the high level of protection and management to cetaceans in Commonwealth marine areas and prescribed



waters. The Australian Whale Sanctuary encompasses the area of the EEZ outside state waters and generally extends 200 nautical miles from the coast, but further in some areas to cover the continental shelf and slope. It also includes external territories including Christmas, Macquarie, Heard and McDonald Islands. Within the Australian Whale Sanctuary, it is an offence to kill, injure, take, trade, keep, move or interfere with a cetacean. Sperm whales are also protected in all State and Territories under general native species and/or threatened species protection and management legislation.

Australia has a National Representative System of Marine Protected Areas, with reserves in Commonwealth and State waters that conserve biodiversity and habitat including protected, endangered, vulnerable and migratory species including whales.

Control hunting / poaching

> Under section 229 of the EPBC Act, it is an offence to kill or injure a cetacean in Australian Commonwealth waters. Furthermore, section 236 of the EPBC Act prohibits whaling in Australian Commonwealth waters. All Australian jurisdictions have complimentary laws and under State and Territory legislation you cannot kill or interfere with a cetacean.

Australia is an original signatory to the International Convention for the Regulation of Whaling. Australia strongly supports the moratorium on commercial whaling agreed to by the Commission in 1982 and seeks a permanent ban on all forms of commercial whaling.

Habitat protection

> Australia has a National Representative System of Marine Protected Areas, with reserves in Commonwealth and State waters that conserve biodiversity and habitat including protected, endangered, vulnerable and migratory species including whales.

4. If no activities have been carried out for this species in the reporting period, what has prevented such action being taken?

> N/A

5. Describe any future activities that are planned for this species:

> Ongoing research and monitoring programs, with additional habitat protection if required.

### **Species name: *Balaenoptera borealis***

1. Please provide published distribution reference:

> Bannister JL, Kemper CM and Warneke RM (1996) The Action Plan for Australian Cetaceans, Commonwealth of Australia, Canberra, Global Cetacean Summary Report (<http://www.environment.gov.au/coasts/publications/global-cetacean-summary.html>) and Recovery Plans for Australia's Five Threatened Whale Species (<http://www.environment.gov.au/coasts/publications/cetaceans-action-plan/pubs/whaleplan.pdf>).

2a. Summarise information on population size (if known):

not known

> There is no accepted current abundance estimate for sei whales in the southern hemisphere and no estimate for Australian waters. This species is listed as vulnerable under the EPBC Act.

2b. Summarise information on distribution (if known):

not known

> The movements and distributions of sei whales are unpredictable and not well documented. Sei whales are not often found near coasts and the species is infrequently recorded in Australian waters. To date, individuals have been recorded along Australia's eastern, western and southern coastlines.

3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

Education / awareness rising

> The Australian Government has comprehensive information available on cetaceans on the following website <http://www.environment.gov.au/topics/marine/marine-species/cetaceans>. A pamphlet outlining information on the Australian Whale Sanctuary, Whale and Dolphin Incident Management, Whale Watching Guidelines and whale and dolphin identification diagrams is available.

The NSW Government has committed significant resources to educating the community about cetacean conservation and migratory pathways. This commitment includes:

- Publications such as Wild about whales ;

(<http://www.environment.nsw.gov.au/resources/nature/wildAboutWhales.pdf>)

- Providing access to web-based information ( <http://www.wildaboutwhales.com.au>)

- Use of social media applications (Twitter, Facebook) to provide current and accurate information about cetaceans migrating through NSW waters.

Species protection

> The Australian Whale Sanctuary was established in accordance with the EPBC Act, to give formal recognition of the high level of protection and management to cetaceans in Commonwealth marine areas and prescribed waters. The Australian Whale Sanctuary encompasses the area of the EEZ outside state waters and generally extends 200 nautical miles from the coast, but further in some areas to cover the continental shelf and slope. It also includes external territories including Christmas, Macquarie, Heard and McDonald Islands. Within the Australian Whale Sanctuary, it is an offence to kill, injure, take, trade, keep, move or interfere with a cetacean. Sei whales are also protected in all State and Territories under general native species and/or threatened species protection and management legislation.

Australia has a National Representative System of Marine Protected Areas, with reserves in Commonwealth and State Waters that conserve biodiversity and habitat including protected, endangered, vulnerable and migratory species such as whales.

Under section 229 of the EPBC Act, it is an offence to kill or injure a cetacean in Australian Commonwealth waters. All Australian jurisdictions have complimentary laws and under State and Territory legislation you cannot kill or interfere with a cetacean. Furthermore, section 236 of the EPBC Act prohibits whaling in Australian Commonwealth waters. Australia is an original signatory to the International Convention for the Regulation of Whaling. Australia strongly supports the moratorium on commercial whaling agreed to by the Commission in 1982 and seeks a permanent ban on commercial whaling.

 Species restoration

> Under Australia's national environmental protection legislation, the Department of the Environment is required to produce recovery plans for certain species of cetaceans. Since reporting to the Convention of Migratory Species in 2005, recovery plans for five species of cetaceans were produced. For the sei whale, the recovery plan has two objectives:

1. The recovery of sei whale populations so that they may be considered secure in the wild; and
2. To maintain the protection of sei whales from human threats.

(the Plan can be viewed at

[http://www.environment.gov.au/biodiversity/threatened/publications/recovery/balaenoptera\\_sp/index.html](http://www.environment.gov.au/biodiversity/threatened/publications/recovery/balaenoptera_sp/index.html)).

A five year review of the sei whale recovery plan was undertaken in May 2010. The recommendation from the review was that the plan should be updated.

 Habitat protection

> Australia has a National Representative System of Marine Protected Areas, with reserves in Commonwealth and State Waters that conserve biodiversity and habitat including protected, endangered, vulnerable and migratory species such as whales.

4. If no activities have been carried out for this species in the reporting period, what has prevented such action being taken?

> N/A

5. Describe any future activities that are planned for this species:

> Ongoing research and monitoring programs, with additional habitat protection if required.

**Species name: Balaenoptera physalus**

1. Please provide published distribution reference:

> Bannister JL, Kemper CM and Warneke RM (1996) The Action Plan for Australian Cetaceans, Commonwealth of Australia, Canberra, Global Cetacean Summary Report (<http://www.environment.gov.au/coasts/publications/global-cetacean-summary.html>) and Recovery Plans for Australia's Five Threatened Whale Species (<http://www.environment.gov.au/coasts/publications/cetaceans-action-plan/pubs/whaleplan.pdf>).

2a. Summarise information on population size (if known):

not known

> There are no estimates of current fin whale abundance for the southern hemisphere or for Australian waters. This species is listed as vulnerable under the EPBC Act.

2b. Summarise information on distribution (if known):

unclear

> Fin whales are widely distributed in the Southern hemisphere between latitudes of 20-75°. In Australia, there are confirmed records of fin whales for all coastal waters except in New South Wales and the Northern Territory. The available information suggests that the species is more commonly present in deeper water.

3. Indicate and briefly describe any activities that have been carried out in favour of this species in the

reporting period. (Please provide the title of the project and contact details, where available):

Education / awareness rising

> The Australian Government has comprehensive information available on cetaceans on the following website <http://www.environment.gov.au/topics/marine/marine-species/cetaceans>. A pamphlet outlining information on the Australian Whale Sanctuary, Whale and Dolphin Incident Management, Whale Watching Guidelines and whale and dolphin identification diagrams is available.

The NSW Government has committed significant resources to educating the community about cetacean conservation and migratory pathways. This commitment includes:

- Publications such as Wild about whales ;

(<http://www.environment.nsw.gov.au/resources/nature/wildAboutWhales.pdf>)

- Providing access to web-based information ( <http://www.wildaboutwhales.com.au>)

- Use of social media applications (Twitter, Facebook) to provide current and accurate information about cetaceans migrating through NSW waters.

Species protection

> The Australian Whale Sanctuary was established in accordance with the EPBC Act, to give formal recognition of the high level of protection and management to cetaceans in Commonwealth marine areas and prescribed waters. The Australian Whale Sanctuary encompasses the area of the EEZ outside state waters and generally extends 200 nautical miles from the coast, but further in some areas to cover the continental shelf and slope. It also includes external territories including Christmas, Macquarie, Heard and McDonald Islands. Within the Australian Whale Sanctuary, it is an offence to kill, injure, take, trade, keep, move or interfere with a cetacean. Fin whales are also protected in all State and Territories under general native species and/or threatened species protection and management legislation.

Australia has a National Representative System of Marine Protected Areas, with reserves in Commonwealth and State Waters that conserve biodiversity and habitat including protected, endangered, vulnerable and migratory species including whales.

Control hunting / poaching

> Under section 229 of the EPBC Act, it is an offence to kill or injure a cetacean in Australian Commonwealth waters. Furthermore, section 236 of the EPBC Act prohibits whaling in Australian Commonwealth waters. All Australian jurisdictions have complimentary laws and under State and Territory legislation you cannot kill or interfere with a cetacean.

Australia is an original signatory to the International Convention for the Regulation of Whaling. Australia strongly supports the moratorium on commercial whaling agreed to by the Commission in 1982 and seeks a permanent ban on all forms of commercial whaling.

Species restoration

> Under Australia's national environmental protection legislation, the Department of the Environment is required to produce recovery plans for certain species of cetaceans. Since reporting to the Convention of Migratory Species in 2005, recovery plans for five species of cetaceans were produced. For the fin whale, the recovery plan has two objectives:

1. The recovery of fin populations so that they may be considered secure in the wild; and

2. To maintain the protection of fin whales from human threats.

(The Plan can be viewed at

[http://www.environment.gov.au/biodiversity/threatened/publications/recovery/balaenoptera\\_sp/index.html](http://www.environment.gov.au/biodiversity/threatened/publications/recovery/balaenoptera_sp/index.html)).

A five year review of the fin whale recovery plan was undertaken in May 2010. One recommendation from the review was that the recovery plan for the fin whale should be updated.

Habitat protection

> Australia has a National Representative System of Marine Protected Areas, with reserves in Commonwealth and State waters that conserve biodiversity and habitat including protected, endangered, vulnerable and migratory species including whales.

4. If no activities have been carried out for this species in the reporting period, what has prevented such action being taken?

> N/A

5. Describe any future activities that are planned for this species:

> Ongoing research and monitoring programs, with additional habitat protection if required.

### **Species name: Balaenoptera musculus**

1. Please provide published distribution reference:

> Bannister JL, Kemper CM and Warneke RM (1996) The Action Plan for Australian Cetaceans, Commonwealth of Australia, Canberra, Global Cetacean Summary Report (<http://www.environment.gov.au/coasts/publications/global-cetacean-summary.html>) and Recovery Plans for

Australia's Five Threatened Whale Species (<http://www.environment.gov.au/coasts/publications/cetaceans-action-plan/pubs/whaleplan.pdf>)

2a. Summarise information on population size (if known):

unclear

> The blue whale is classified as Endangered under the EPBC Act and current analysis is that there are two subspecies of blue whales utilising Australian waters: the Antarctic Blue whale and the pygmy blue whale. The population size of pygmy blue whales is not known. The most recent abundance estimate (1992/1993 - 2003/2004 season) is 2280 (95% interval 1160-4500) with an average estimated increase of 8.2% per year (95% interval 1.6-14.8).

2b. Summarise information on distribution (if known):

stable

> The blue whale has been recorded in all Australian marine areas between 20°S and 70°S. They generally occur more than 2km off the Australian continent and islands, except for the south-western areas of the continent. Blue whales are known to feed in key localities, including the Perth Canyon (Western Australia), Bonney Upwelling (Victoria and South Australia) and Eden (New South Wales). Recent research has shown that blue whales which forage in the Perth Canyon off Western Australia are migrating up the western coast of Australia to the Banda and Molucca Seas off Indonesia.

3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

Research

> The Australian Antarctic Division and Australian Marine Mammal Centre conducted two voyages in January and March 2012 in Northern Bass Strait off Australia to develop techniques for locating endangered blue whales.

The Antarctic Blue Whales Project is a flagship program of the international Southern Ocean Research Partnership involving ten countries – Argentina, Australia, Brazil, Chile, France, Germany, New Zealand, Norway, South Africa and the United States. The 2013 Antarctic Blue Whale Voyage – or VWhale – departed from Nelson, New Zealand on board the MFV Amaltal Explorer on January 29, 2013. The research included the assessment and refinement of passive acoustic methods for locating Antarctic blue whales, collection of photo id's and biopsies, and linking passive acoustic data with whale behaviour. It also included the deployment of satellite tags to describe the movement and foraging behaviour of Antarctic blue whales. The results from this voyage will be shared with the International Whaling Commission to assist in the conservation and recovery of the Antarctic blue whale.

M. C Double, K.C.S Jenner, M-N. Jenner, I. Ball, S. Laverick and N. Gales Australian Marine Mammal Centre, Australian Antarctic Division and Centre for Whale Research (Western Australia) May 2012: Satellite tracking of Pygmy Blue Whales (*Balaenoptera musculus brevicauda*) off Western Australia.

Peter C. Gill, Margie G. Morrice, Brad Page, Rebecca Pirzl, Andrew H. Levings and Michael Coyne 2011: Blue whale habitat selection and within-season distribution in a regional upwelling system off southern Australia.

Robert D. McCauley and Curt Jenner : Migratory patterns and estimated population size of pygmy blue whales (*Balaenoptera musculus brevicauda*) traversing the Western Australian coast based on passive acoustics.

Identification and establishment of protected areas

> The Bonney Upwelling off the Victorian and South Australian coastlines has been identified in the Blue Whale Recovery Plan as an important habitat for the survival of blue whales as it serves as a key aggregation and feeding area for the species during summer months (December to May). A similar feeding area exists off the Western Australian coast in the Perth Canyon. All cetaceans are afforded comprehensive protection in Australian waters under environmental protection legislation. Furthermore, there is a provision in the legislation allowing for the declaration of important cetacean habitats.

Species protection does also occur through marine reserves established for multiple species in Australian waters (Temperate East Commonwealth Marine Reserves Network, South-east Commonwealth Marine Reserve Network, South-west Commonwealth Marine Reserve Network, North Commonwealth Marine Reserves Network, North-west Commonwealth Marine Reserves Network and the Coral Sea Commonwealth Marine Reserve).

Monitoring

> Australian Cetacean Sighting Database (Australian Marine Mammal Centre)

Smith, H., Waples, K. and Friedman, K. (2009). Review of Cetacean Monitoring in Western Australian State Waters, Marine Science Branch, Dept of Environment and Conservation

Education / awareness rising

> The Australian Government has comprehensive information available on cetaceans on the following website <http://www.environment.gov.au/topics/marine/marine-species/cetaceans>. A pamphlet outlining information on the Australian Whale Sanctuary, Whale and Dolphin Incident Management, Whale Watching Guidelines and

whale and dolphin identification diagrams is available.

Species protection

> All Appendix 1 species are protected under the EPBC Act.

The Australian Whale Sanctuary was established in accordance with the EPBC Act, to give formal recognition of the high level of protection and management to cetaceans in Commonwealth marine areas and prescribed waters. The Australian Whale Sanctuary encompasses the area of the EEZ outside state waters and generally extends 200 nautical miles from the coast, but further in some areas to cover the continental shelf and slope. It also includes external territories including Christmas, Macquarie, Heard and McDonald Islands. Within the Australian Whale Sanctuary, it is an offence to kill, injure, take, trade, keep, move or interfere with a cetacean. Blue whales are also protected in all State and Territories under general native species and/or threatened species protection and management legislation.

Australia has a National Representative System of Marine Protected Areas with reserves in Commonwealth and State Waters that conserve biodiversity and habitat including protected, endangered, vulnerable and migratory species including whales.

Control hunting / poaching

> Under section 229 of the EPBC Act, it is an offence to kill or injure a cetacean in Australian Commonwealth waters. Furthermore, section 236 of the EPBC Act prohibits whaling in Australian Commonwealth waters. All Australian jurisdictions have complimentary laws and under State and Territory legislation you cannot kill or interfere with a cetacean.

Australia is an original signatory to the International Convention for the Regulation of Whaling. Australia strongly supports the moratorium on commercial whaling agreed to by the Commission in 1982 and seeks a permanent ban on all forms of commercial whaling.

Species restoration

> Under Australia's national environmental protection legislation, the Department of the Environment is required to produce recovery plans for certain species of cetaceans. In 2005, recovery plans for five species of cetaceans were produced. For the blue whale, the recovery plan has two objectives:

1. The recovery of blue whale populations so that they may be considered secure in the wild.
2. To maintain the protection of blue whales from human threats.

(The Plan can be viewed at <http://www.environment.gov.au/coasts/publications/cetaceans-action-plan/pubs/whaleplan.pdf>).

A five year review of the blue whale recovery plan was undertaken in May 2010. One recommendation from the review was that a Recovery Plan for the blue whale should be maintained and updated given the persistence of threats. This plan is currently being revised.

Habitat protection

> Australia has a National Representative System of Marine Protected Areas, with reserves in Commonwealth and State Waters, that conserve biodiversity and habitat including protected, endangered, vulnerable and migratory species including whales.

4. If no activities have been carried out for this species in the reporting period, what has prevented such action being taken?

> N/A

5. Describe any future activities that are planned for this species:

> Ongoing research and monitoring programs, with additional habitat protection if required.

### **Species name: *Megaptera novaeangliae***

1. Please provide published distribution reference:

> Bannister JL, Kemper CM and Warneke RM (1996) The Action Plan for Australian Cetaceans, Commonwealth of Australia, Canberra, Global Cetacean Summary Report (<http://www.environment.gov.au/coasts/publications/global-cetacean-summary.html>) and Recovery Plans for Australia's Five Threatened Whale Species (<http://www.environment.gov.au/coasts/publications/cetaceans-action-plan/pubs/whaleplan.pdf>).

2a. Summarise information on population size (if known):

increasing

> The humpback whale is listed as vulnerable under the EPBC Act. The western Australian population with current absolute abundance estimates for 2008 at approximately 28,830, and the east Australian population absolute abundance estimates in 2010 were approximately 14,522. The rate of population increase for these two populations is thought to be the highest in the world at a rate of between 10.9-11% per year for the east coast and 9.7-13% for the west coast population.

## 2b. Summarise information on distribution (if known):

increasing

> The humpback whale is considered as a coastal species in Australian waters in winter and spring. The species occur in waters south of 15°S, however key locations include sites along the western and eastern Australian coastlines. Breeding locations are known off the northern Western Australian coast and in the central region of the Great Barrier Reef. Distribution is considered to be increasing with reports of humpback whales sighted in previously unrecorded areas. These include an extension to the northern boundary of distribution in Western Australia.

## 3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

Research

> Several projects funded by the Australian Government through grants programs administered by the Australian Marine Mammal Centre in the period include:

Dr Joshua Smith, Prof Ken Pollock and Dr Sharon Hedley 2011: Identification of humpback whale breeding areas in the Great Barrier Reef Marine Park: validation of a spatial habitat model.

Gregory Kaufman, James Tolley and Curt Jenner 2012: WhaleTale: A crowdsourcing platform for cross-identification of Australian Humpback Whales (*Megaptera novaengliae*).

Dr Sam du Fresne, Dr Amanda Hodgson, Dr Josh Smith and Dr Sharon Hedley 2012: Abundance estimation of breeding stock 'D' of humpback whales (Western Australia): a pilot study to determine optimal survey methods and location.

Prof Robert Harcourt, A / Prof Vic Peddemors, Dr David Slip and Ms Maryrose Guleserian 2011: An empirical assessment of whale alarms and avoidance, or not, by migrating humpback whales.

Dr Daniel Burns, Dr Hendrik (Eric) Kniest; Dr Lyndon Brooks; Prof Peter Harrison; Curt & Micheline Jenner; Chris Burton; David Paton; Megan Kessler; Dr Mike Noad; Rachael Alderman; Dr Jan-Olaf Meynecke; Peta Beeman 2011: Workshop to facilitate the development of an Australia humpback whale fluke catalogue.

Joshua N. Smith, Hedley S. Grantham, Nick Gales, Michael C. Double, Michael J. Noad and David Paton (2012). Identification of humpback whale breeding and calving habitat in the Great Barrier Reef. *Mar Ecol Prog Ser* 447: 259-272.

Coughran, D. K., Stiles, I. and Mawson, P. R. (2012). Euthanasia of beached humpback whales using explosives. *Journal of Cetacean Research and Management* 12(1): 137-144.

Coughran, D. K., Gales, N. J. and Smith H. C. (2013). A note on the spike in recorded mortality of humpback whales (*Megaptera novaeangliae*) in Western Australia. *Journal of Cetacean Research and Management* 13(2): 105-108.

Identification and establishment of protected areas

> There are a number of aggregation areas identified in the humpback whale recovery plan along the eastern and western Australian migratory routes. Known calving areas include the Southern Kimberly area between Broome and the northern end of Camden Sound in Western Australia, and areas of the Great Barrier Reef complex in Queensland. All cetaceans are afforded comprehensive protection in Australian waters under environmental protection legislation. The 696,000ha Camden Sound Marine Park (State) was created in June 2012 to conserve the humpback whale nursery and breeding area.

Species protection does also occur through marine reserves established for multiple species in Australian waters (Temperate East Commonwealth Marine Reserves Network, South-east Commonwealth Marine Reserve Network, South-west Commonwealth Marine Reserve Network, North Commonwealth Marine Reserves Network, North-west Commonwealth Marine Reserves Network and the Coral Sea Commonwealth Marine Reserve).

Monitoring

> Australian Cetacean Sighting Database (Australian Marine Mammal Centre).

Annual census of humpback whales are undertaken at various points along the Australian east coast by State government departments with assistance from volunteer groups. Studies such as the Cape Solander Whale Migration Study (CSWMS) run by the NSW Office of Environment and Heritage have been collecting longitudinal datasets for many years. The CSWMS currently has datasets that go back to 1997.

Two large scale scientific surveys are undertaken every three years on the west and east coast of Australia. These surveys are funded by the Australian Government through the Australian Marine Mammal Centre. The population estimates derived from these surveys are submitted to the International Whaling Commission. Regular Commonwealth-funded population surveys conducted by Dr Mike Noad of the University of Queensland at Point Lookout seek to estimate the rate of increase and population size of the east Australian

population.

Salgado et al CWR Curtin University & CWR Humpback estimate: 26,100 (CI = 20,152-33,272) in 2008 maximum plausible increase rate of 11.8%. A total of 1221 humpback whales were sighted in 17 aerial surveys over the South West Pilbara offshore region during May to December 2009.

Education / awareness rising

> The Australian Government has comprehensive information available on cetaceans on the following website <http://www.environment.gov.au/topics/marine/marine-species/cetaceans>. A pamphlet outlining information on the Australian Whale Sanctuary, Whale and Dolphin Incident Management, Whale Watching Guidelines and whale and dolphin identification diagrams is available.

The NSW Government has committed significant resources to educating the community about cetacean conservation and migratory pathways. This commitment includes:

- Publications such as Wild about whales ;

(<http://www.environment.nsw.gov.au/resources/nature/wildAboutWhales.pdf>)

- Providing access to web-based information ( <http://www.wildaboutwhales.com.au>)

- Use of social media applications (Twitter, Facebook) to provide current and accurate information about cetaceans migrating through NSW waters.

Species protection

> The Australian Whale Sanctuary was established in accordance with the EPBC Act, to give formal recognition of the high level of protection and management to cetaceans in Commonwealth marine areas and prescribed waters. The Australian Whale Sanctuary encompasses the area of the EEZ outside state waters and generally extends 200 nautical miles from the coast, but further in some areas to cover the continental shelf and slope. It also includes external territories including Christmas, Macquarie, Heard and McDonald Islands. Within the Australian Whale Sanctuary, it is an offence to kill, injure, take, trade, keep, move or interfere with a cetacean. Humpback whales are also protected in all State and Territories under general native species and/or threatened species protection and management legislation.

Australia has a National Representative System of Marine Protected Areas with reserves in Commonwealth and State Waters that conserve biodiversity and habitat including protected, endangered, vulnerable and migratory species including whales.

Control hunting / poaching

> Under section 229 of the EPBC Act, it is an offence to kill or injure a cetacean in Australian Commonwealth waters. Furthermore, section 236 of the EPBC Act prohibits whaling in Australian Commonwealth waters. All Australian jurisdictions have complimentary laws and under State and Territory legislation you cannot kill or interfere with a cetacean.

Australia is an original signatory to the International Convention for the Regulation of Whaling. Australia strongly supports the moratorium on commercial whaling agreed to by the Commission in 1982 and seeks a permanent ban on commercial whaling.

Species restoration

> Under Australia's national environmental protection legislation, the Department of the Environment is required to produce recovery plans for certain species of cetaceans. Since reporting to the Convention of Migratory Species in 2005, recovery plans for five species of cetaceans were produced. For the humpback whale, the recovery plan has three objectives:

1. The recovery of humpback populations so that they may be considered secure in the wild;

2. The distribution of humpback whales in Australian waters similar to the pre-exploitation distribution of the species; and

3. To maintain the protection of humpback whales from human threats.

(The Plan can be viewed at <http://www.environment.gov.au/coasts/publications/cetaceans-action-plan/pubs/whaleplan.pdf>).

A five year review of the humpback recovery plan was undertaken in May 2010. The recommendation from the review was that the plan be updated. This plan is currently being revised.

Habitat protection

> Australia has a National Representative System of Marine Protected Areas, with reserves in Commonwealth and State Waters that conserve biodiversity and habitat including protected, endangered, vulnerable and migratory species including whales.

4. If no activities have been carried out for this species in the reporting period, what has prevented such action being taken?

> N/A

5. Describe any future activities that are planned for this species:

> Ongoing research and monitoring programs, with additional habitat protection if required.

**Species name: *Eubalaena australis***

## 1. Please provide published distribution reference:

> Bannister JL, Kemper CM and Warneke RM (1996) The Action Plan for Australian Cetaceans, Commonwealth of Australia, Canberra, Global Cetacean Summary Report (<http://www.environment.gov.au/coasts/publications/global-cetacean-summary.html>) and Recovery Plans for Australia's Five Threatened Whale Species (<http://www.environment.gov.au/coasts/publications/cetaceans-action-plan/pubs/whaleplan.pdf>).

## 2a. Summarise information on population size (if known):

increasing

> The population of Australian southern right whales has been monitored annually since 1976. Abundance estimates and trends for Australian southern right whales are available from the south-west Australian population for the area between Cape Leeuwin, WA and Ceduna, SA. The minimum size of that population is estimated at 2900 with a 6.79 % increase each year (95% confidence intervals 3.88-9.78). No reliable abundance estimate or trend is available for the south-east Australian population but the total Australian population – that is, the south-west and the south-east populations is estimated to be in the vicinity of 3500 individuals.

## 2b. Summarise information on distribution (if known):

unclear

> In Australia, the southern right whale is distributed south of 30°S, primarily around the southern coastline from Perth (Western Australia) to Sydney (on the eastern coastline) including Tasmania. Key localities include Point Ann and Point Charles (Western Australia), the Head of the Great Australian Bight (South Australia), Warrnambool (Victoria) and the east coast of Tasmania.

## 3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

Research

> Several projects funded by the Australian Government through grants programs administered by the Australian Marine Mammal Centre in the period include:

Ms Mandy Watson, Prof Rob Harcourt, Rachael Alderman, Geoff Ross and Emma Carroll 2011: Status, Structure and Distribution of Southern Right Whales in South-east Australia – Phase 2.

Ms Mandy Watson, Mr Ian Westhorpe, Mr John Bannister, Ms Sharon Hedley and Dr Robert Harcour 2012: Assessment of numbers and distribution of Southern Right Whales in South-east Australia.

Dr Rebecca Pirzl, Mr Kieran Lawson and Mr Andy Townsend 2012: Australasian Right Whale Photo-Identification Catalogue.

Mr John Bannister, Western Australian Museum, 2012: Monitoring Population dynamics of right whales off southern Australia in 2012 and 2013.

Dr Stephen Burnell and Ms Claire Charlton 2012: Southern Right Whale Photo Identification and population census at Head of Bight, S.A and assessment of Fowlers Bay as an emerging potential nursery ground and aggregation area.

Mr John Bannister, Western Australian Museum, 2011: Monitoring Population dynamics of right whales off southern Australia in 2012 and 2013.

Goldsworthy SD, Mackay A. 2014. Development and implementation of a new survey protocol for monitoring southern right whale abundance, distribution and population dynamics at the Great Australian Bight aggregation/nursery ground. SARDI Aquatic Sciences Technical Report.

[http://www.sardi.sa.gov.au/\\_data/assets/pdf\\_file/0016/218320/Southern\\_Right\\_Whales\\_Report\\_-\\_FINAL.pdf](http://www.sardi.sa.gov.au/_data/assets/pdf_file/0016/218320/Southern_Right_Whales_Report_-_FINAL.pdf)

Identification and establishment of protected areas

> Key calving and aggregation areas for Southern right whales in Australia include Point Ann and Point Charles (Western Australia), the Head of the Great Australian Bight (South Australia) and Warrnambool (Victoria). All cetaceans are afforded comprehensive protection in Australian waters under environmental protection legislation.

Species protection does also occur through marine reserves established for multiple species in Australian waters (Temperate East Commonwealth Marine Reserves Network, South-east Commonwealth Marine Reserve Network and the South-west Commonwealth Marine Reserve Network).

Monitoring

> Australian Cetacean Sighting Database (Australian Marine Mammal Centre).

Education / awareness rising

> The Australian Government has comprehensive information available on cetaceans on the following website <http://www.environment.gov.au/topics/marine/marine-species/cetaceans>. A pamphlet outlining information on the Australian Whale Sanctuary, Whale and Dolphin Incident Management, Whale Watching Guidelines and whale and dolphin identification diagrams is available.

The NSW Government has committed significant resources to educating the community about cetacean



conservation and migratory pathways. This commitment includes:

- Publications such as Wild about whales ; (<http://www.environment.nsw.gov.au/resources/nature/wildAboutWhales.pdf>)
- Providing access to web-based information ( <http://www.wildaboutwhales.com.au>)
- Use of social media applications (Twitter, Facebook) to provide current and accurate information about cetaceans migrating through NSW waters.

Species protection

> The Australian Whale Sanctuary was established in accordance with the EPBC Act, to give formal recognition of the high level of protection and management to cetaceans in Commonwealth marine areas and prescribed waters. The Australian Whale Sanctuary encompasses the area of the EEZ outside state waters and generally extends 200 nautical miles from the coast, but further in some areas to cover the continental shelf and slope. It also includes external territories including Christmas, Macquarie, Heard and McDonald Islands. Within the Australian Whale Sanctuary, it is an offence to kill, injure, take, trade, keep, move or interfere with a cetacean. Southern right whales are also protected in all State and Territories under general native species and/or threatened species protection and management legislation.

Australia has a National Representative System of Marine Protected Areas, with reserves in Commonwealth and State Waters that conserve biodiversity and habitat including protected, endangered, vulnerable and migratory species including whales.

Control hunting / poaching

> Under section 229 of the EPBC Act, it is an offence to kill or injure a cetacean in Australian Commonwealth waters. Furthermore, section 236 of the EPBC Act prohibits whaling in Australian Commonwealth waters. All Australian jurisdictions have complimentary laws and under State and Territory legislation you cannot kill or interfere with a cetacean.

Australia is an original signatory to the International Convention for the Regulation of Whaling. Australia strongly supports the moratorium on commercial whaling agreed to by the Commission in 1982 and seeks a permanent ban on commercial whaling.

Species restoration

> Under Australia's national environmental protection legislation, the Department of the Environment is required to produce recovery plans for certain species of cetaceans. Southern right whales are listed as endangered under the EPBC Act. A revised Conservation Management Plan for the Southern Right Whale was developed in 2011 and conforms to the International Whaling Commission's (IWC) 'Conservation Management Plan' format, while meeting the requirements of a recovery plan under the EPBC Act.

Habitat protection

> Australia has a National Representative System of Marine Protected Areas, with reserves in Commonwealth and State Waters that conserve biodiversity and habitat including protected, endangered, vulnerable and migratory species including whales.

The establishment of the expanded Great Australian Bight Commonwealth Marine Reserve (including the waters of the former Great Australian Bight Marine Park (Commonwealth waters)), and the South Australian State Far West Coast Marine Park (including the waters of the former Great Australian Bight Marine Park), in particular, the former Marine Mammal Protection Zone of the Commonwealth waters of the former Park, established 1998, which is closed during the southern right whale migration and breeding season.

4. If no activities have been carried out for this species in the reporting period, what has prevented such action being taken?

> N/A

5. Describe any future activities that are planned for this species:

> Ongoing research and monitoring programs, with additional habitat protection if required.

Miscellaneous information or comments on Appendix I marine mammals in general:

> The Australian Marine Mammal Centre was established by the Australian Government in 2006 and represents the first major national research centre focused on understanding, protecting and conserving the whales, dolphins, seals and dugongs in our region. It coordinates Australia's research to provide scientific research and advice to underpin Australia's marine mammal conservation and policy initiatives. The AMMC provides an integrated, strategic, cross jurisdictional approach to support marine mammal conservation, management and policy priorities.

### 3. REPTILES

#### 3.1 General questions on Appendix I reptiles

1. Is the taking of all Appendix I reptiles species prohibited by the national implementing legislation cited in Table I(a) (General Information)?

No

If other legislation is relevant, please provide details:

> Some legislation provides specifically for traditional hunting of marine turtles. For example, the Australian Native Title Act 1993 permits Native Title holders to hunt turtles for the purposes of satisfying their personal, domestic or non-commercial communal needs. The Torres Strait Fisheries Act 1984 allows for the traditional take of marine turtles and dugongs by traditional inhabitants of Torres Strait within the area of the Torres Strait Protected Zone and the surrounding outside but near areas as described in the Torres Strait Treaty. Some State and Territory legislation may also provide for the traditional take of wildlife. In addition, some legislation enables traditional take of wildlife by Native Title holders either by authority, agreement or exemption.

The protection afforded by the national implementing legislation has been complemented under the Great Barrier Reef Marine Park Zoning Plan 2003. All six marine turtles species in Australia are protected from take within the Great Barrier Reef Marine Park, which extends to low water.

1a. If the taking of Appendix I reptiles species is prohibited by law, have any exceptions been granted to the prohibition?

Yes

If Yes, please provide details (Include the date on which the exception was notified to the CMS Secretariat pursuant to CMS Article III(7)):

> Indigenous people continue to have customary access to native species under the Federal Native Title Act 1993.

Most State and Territory jurisdictions provide for continued customary use of wildlife, including marine turtles, by Indigenous people.

2. Identify any obstacles to migration that exist in relation to Appendix I reptiles species:

By-catch

Pollution

Other threats to migration (please provide details)

> Marine debris including ghost nets.

The incidental capture and mortality of turtles decreased substantially after the introduction of Turtle Exclusion Devices in most trawl fisheries. Also, turtle by-catch is reported in Fisheries Status Reports.

Other management actions, such as the replacement of nets with drumlines, research into hook and bait types to reduce capture and the implementation of the Marine Animal Release Teams, has led to significant reductions in bycatch of marine turtles via shark control programs. However, further monitoring and research is still required to review the efficacy of current excluding devices and programs, and to fully understand the impacts to populations.

Fishery activities can also impact on the habitats of marine turtles. For example, trawling can disturb important foraging habitat, as the nets are dragged through seagrass and other benthic foraging areas. In addition, lost or discarded fishing nets (ghost nets) can also pose a threat to marine turtles.

2a. What actions are being undertaken to overcome these obstacles?

> The Australian Government and the relevant State and Territory governments are working together on responding to marine turtle issues in northern Australia. These actions are being implemented through a range of mechanisms, including:

1. The Dugong and Turtle Protection Plan

2. Traditional Use of Marine Resources Agreements (TUMRAs)

3. Indigenous Land Use Agreements (ILUAs)

4. The 2009 Marine Debris Threat Abatement Plan was developed to address the impacts of marine debris, including ghost nets on marine turtles and other marine species

The Australian Government has also listed the following key threatening processes: incidental catch (by-catch) of sea turtles during coastal otter-trawling operations in Australian waters north of 28oS (2001); predation by exotic rats on Australia offshore islands of less than 1000km<sup>2</sup> (100,000 ha) (2006); and predation, habitat degradation, competition and disease transmission of feral pigs (2001).

The development of marine debris monitoring surveys, including identifying the source of ghost nets, and cleanup programs, partly funded through the Australian Government's Caring for Country.

CSIRO is undertaking a 3 year research project from 2011-14 to better understand the threat posed by marine debris to Australian wildlife and ecosystems, and to develop a national risk assessment tool for wildlife species affected by marine debris. The research is underpinned by a national survey of where – and how – marine debris accumulates along Australian coastlines. TeachWild, a national research and education program developed by Earthwatch Australia together with CSIRO and Shell Australia, is contributing data to the national survey. To date, almost 5,000 students from more than 50 Australian schools have participated. The national survey data is being collected using a statically rigorous beach cleanup methodology that allows for detailed analysis of factors such as marine debris type, occurrence and source.

GhostNets Australia, an alliance of indigenous communities from coastal northern Australia have focused on removal of derelict fishing nets from the marine environment and engagement with Indonesian communities to better understand the regional origins of these “ghost” nets and to begin to address the problem. Through innovative engagement with the broader community, this group have significantly raised the national profile of marine debris issues.

The Australian Government’s Border Protection Command has an established tasking to detect and report all large marine debris, particularly derelict fishing nets, in Australian waters.

2b. Please report on the progress / success of the actions taken.

> The incidental capture and mortality of turtles decreased substantially after the introduction of Turtle Exclusion Devices in most trawl fisheries.

2c. What assistance, if any, does your country require in order to overcome these obstacles?

> N/A

3. What are the major pressures to Appendix I reptiles species (transcending mere obstacles to migration)?

- Collection of eggs
- Predation of eggs
- Destruction of nesting beaches
- Other (please specify)

> Indigenous subsistence harvest of individual turtles.

Mortality of juvenile and adult hawksbill, olive ridley and greens in ghost nets.

Coastal development.

Boat strike.

Habitat loss.

Diseases.

3a. What actions have been taken to prevent, reduce or control factors that are endangering or are likely to further endanger reptiles species beyond actions to prevent disruption to migrating behaviour?

> All commercial fisheries with an export component are assessed under the EPBC Act. The assessments consider the impacts of the fishery on target and non-target species caught, and on the impacts of fishing on the broader marine environment, including on migratory species. Additionally, commercial fisheries operating in Commonwealth waters may also be assessed to determine the impacts of fishing operations on EPBC Act listed species, including migratory species. Conditions and/or recommendations may be placed on fisheries accreditations requiring actions to be taken within a specified period of time to improve the management of particular issues within the fishery, for example in relation to interactions with migratory species. Fisheries management agencies also monitor protected species interactions, including with EPBC Act listed migratory species, and report these to the Department of the Environment.

All six species of marine turtles in Australian waters are protected under Australian Government legislation.

In July 2003, the Australian Government Minister approved a Recovery Plan for Marine Turtles in Australia. The Plan identifies the steps necessary to reduce threats and thus begin the national recovery of all the listed marine turtles. Under the plan a number of steps have been taken to help recover turtle populations, including the development of a draft code of conduct for tourism interactions with turtles, and many actions to help Australia, reduce turtle interactions with fisheries. For example the mandatory use of Turtle Excluder devices in the Northern Prawn Fishery (Commonwealth) and the East Coast Otter Trawl Fishery (Queensland). Go-slow zones have been implemented in Moreton Bay, Great Sandy Strait and other areas to minimise the potential for boat strike. A review of the Recovery Plan is currently underway, and the Plan is currently being revised.

Within the Great Barrier Reef Marine Park, the Great Barrier Reef Marine Park Authority:

- Set specific targets for marine turtle nesting, internesting and foraging habitat protection as part of implementing the Representative Areas Program for the Great Barrier Reef Marine Park Zoning Plan 2003.
- Encourages implementation of codes of conduct by fishermen and attendance at awareness raising courses.
- Works with the Queensland Government to reduce the risk of shark control nets to marine turtles and other bycatch species; only 5 nets remain in the Great Barrier Reef World Heritage Area.

- Implements extensive targeted campaigns to raise public awareness about marine turtle conservation issues.
- Funds research into marine turtle conservation issues including monitoring in the Great Barrier Reef.
- The development and implementation of Traditional Use of Marine Resources Agreements (TUMRAs) under the GBRMP Regulations 1983 provides for Traditional Owners to hunt culturally important species within sustainable limits and to work together with governments to address other activities impacting on such species, including illegal hunting.
- Provides for enhanced enforcement and carcass recovery and inspection programs to identify human-related mortality issues impacting on Great Barrier Reef populations. Projects have been undertaken to remove feral dogs and pigs that predate on marine turtle nests, to understand the impacts of temperature change on marine turtle nesting beaches and to involve Indigenous communities in conservation and management including the removal of marine debris. These projects were funded through the Australian Government's Caring for our Country program.

A range of initiatives are being undertaken in collaboration with Indigenous communities, including:

- The Australian Government Working on Country program, which provides funding to a number of Indigenous organisations in the Northern Territory, Queensland and north-western Australia engaged in sea management activities to employ full-time Indigenous rangers. These rangers undertake activities that include marine debris collection and dugong and turtle-related activities. Turtle-related activities can include recording turtle observations, feral pig control at nesting sites, tagging, measuring, weighing, DNA sampling, fitting transmitters and recording nest sites.
- The Australian Government's Land and Sea Country Partnerships programme, provides funding over five years from July 2013 to expand the Traditional Use of Marine Resource Agreement program across the Great Barrier Reef catchment; develop sea country plans; strengthen communications between key stakeholders; and build a better understanding of Traditional Owner issues relevant to the management of the Great Barrier Reef Marine Park. The programme, delivered by the Great Barrier Reef Marine Park Authority, includes enhanced compliance as one of the activity areas in this programme, where activities address illegal activities that threaten cultural and natural heritage values and culturally important species such as dugong and green turtle.
- The North Australian Indigenous Land and Sea Management Alliance (NAILSMA), which is coordinating the Saltwater People Network Project. This project brings Indigenous communities, ranger groups and non-Indigenous experts together to improve the management of turtle and remote coastal and aquatic environments across northern Australia. Funding has been provided for this project over four years through the Australian Government Caring for our Country program.
- Indigenous groups in five regions in northern Australia are participating in a Turtle and Dugong Management Project (TDMP) being administered by NAILSMA. Communities involved in the project are undertaking a number of projects aimed at developing community-driven approaches to sustainable management of dugongs and marine turtles across northern Australia.
- In the Torres Strait region, communities are participating in the Torres Strait Dugong and Turtle Project being administered by the Torres Strait Regional Authority. The project aims at developing and implementing community based dugong and turtle plans which include a combination of traditional and western management arrangements. The implementation of these plans is being supported by the Torres Strait Ranger Program which is a partnership between traditional owners, Torres Strait Island Regional Council, Torres Strait Regional Authority and other relevant stakeholders. The community plans have been developed and are being implemented in consultation and with support from PNG Treaty villages.
- The Queensland Government has implemented 'Go Slow' areas in Marine Parks in an effort to reduce mortalities to marine turtles (and dugong) resulting from boat strike.
- Establishment of Indigenous ranger programs which have built the capacity of Indigenous rangers in remote areas to management land and sea country.
- Development of Indigenous Protected Area's has helped empower people on the coast to plan and manage their country.

3b. Please report on the progress / success of the actions taken.

> See above.

3c. Describe any factors that may limit action being taken in this regard:

> N/A

3d. What assistance, if any, does your country require to overcome these factors?

> N/A

### 3.2 Questions on specific Appendix I reptiles

In the following section, using the table format below, please fill in each Appendix I reptiles species for which your country is considered to be a Range State. Please complete each table as appropriate, providing information in summary form. Where appropriate, please cross-reference to information already provided in national reports that have been submitted under other conventions (e.g. Convention on

Biological Diversity, Ramsar Convention, CITES). (Attach annexes as necessary.)

**Species name: Chelonia mydas**

1. Please provide published distribution reference:

> Recovery Plan for Marine Turtles in Australia (2003) Prepared by the former Australian Government Department of Environment, Water, Heritage and the Arts. The Plan can be viewed at: <http://www.environment.gov.au/coasts/publications/turtle-recovery/index.html>

2a. Summarise information on population size (if known):

unclear

> Updated information on all the Australian stocks of green turtles can be found in: Limpus, C.J. 2008, A biological review of Australian marine turtle species. 2. Green turtle, *Chelonia mydas* (Linnaeus), Environmental Protection Agency, Brisbane

2b. Summarise information on distribution (if known):

stable

> The Australian population is distributed across seven identified genetically distinct populations and possibly an eighth at the Cocos (Keeling) Islands. In addition, there are green turtles that feed in Australia that are part of stocks that breed in other countries (e.g. Indonesia, PNG and New Caledonia). Green turtles are found in Australian waters off the Northern Territory, Queensland, and Western Australian coastlines.

Green turtles are the predominant species within foraging populations at Ningaloo Reef, Exmouth Gulf and Shark Bay.

3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

Research

> Research into the populations of green turtles foraging and nesting at Cocos (Keeling) Islands Conservancy has been undertaken annually since 1999. These islands are listed as critical habitats in the Marine Turtle Recovery Plan (2003) and this research contributes to the objectives of IOSEA Marine Turtle MoU.

Additionally, research and monitoring of marine turtle nesting and foraging populations of the Great Barrier Reef Marine Park and adjacent Queensland coast (GBRMPA, and Queensland Department of Environment and Heritage Protection) has been conducted. Monitored rookeries include Raine Island for the northern GBR green turtle stock; Howick Island Group; Capricorn Bunker Islands (Heron, Wreck, and Northwest Islands) and Swain Reefs for the southern GBR green turtle stock. Foraging sites include Moreton Bay and Shoalwater Bay, dominated by the southern GBR green turtle stock and Howick Island Group, expected to be dominated by the northern GBR green turtle stock.

In several Indigenous communities across northern Australia research and monitoring of marine turtle nesting and foraging populations is being conducted through the NAILSMA Saltwater People Network dugong and marine turtle project.

There is also monitoring of marine turtles being conducted in the sea country of Giringun, Gudjada and Giru Dala Traditional Owners in the Great Barrier Reef.

QLD DEHP have also been rolling out training with Indigenous rangers and hunters on-country and offering indigenous ranger training at Mon Repos near Bundaberg.

Identification and establishment of protected areas

> Species protection does also occur through marine reserves established for multiple species in Australian waters (Temperate East Commonwealth Marine Reserves Network, Coral Sea Commonwealth Marine Reserve, North Commonwealth Marine Reserves Network, North-west Commonwealth Marine Reserves Network, South-east Commonwealth Marine Reserve Network and the South-west Commonwealth Marine Reserve Network).

Monitoring

> See above and Australia's National Report to the IOSEA Turtle MoU. Long-term monitoring of marine turtle nesting and foraging populations occurs in the Great Barrier Reef Marine Park and adjacent Queensland waters, run by the GBRMPA and Queensland Department of Environment and Heritage Protection.

Additionally, turtle monitoring is ongoing at Ashmore Reef National Nature Reserve, Ningaloo Marine Park, Coral Seas Marine Reserve and the Cocos (Keeling) Islands Conservancy.

Surveys, tagging, beach track count, hatchling success, nest predation, hatchling orientation, predation and dispersal studies are ongoing at a range of locations in Western Australia from Dirk Hartog Island north to

Cape Domett. Main monitoring is of nesting Green, Hawksbill, Loggerhead and Flatback turtles. Main census for green turtles takes place at Ningaloo

A state tagging database has been developed and now accommodates data entry, quality check and downloading a spatial interface, to view records on Google Earth for multiple species and all projects licensed by Department of Environment and Conservation.

Education/awareness rising

> Increased efforts in education, public awareness and training in sea turtle research have been conducted in Indigenous communities by NAILSMA and several collaborators. Educational outreach has been done through newsletters and 'Message Disk' CDs that include video footage of Indigenous community actions towards turtle conservation and management.

There have been increased efforts to provide education, public awareness and training in marine turtle biology, behaviour and management to many indigenous groups within the GBR by the GBRMPA and QLD DEHP.

Species protection

> The species is afforded protection under the EPBC Act.

Projects have been undertaken to remove feral dogs and pigs that predate on marine turtle nests. These projects have been funded through the Australian Government's Caring for Our Country program.

Control hunting / poaching

> In December 2008, the Australian Government committed \$10 million over five years towards the Reef Rescue Plan's Indigenous Land and Sea Country Partnerships Program. The program was delivered by the Great Barrier Reef Marine Park Authority (GBRMPA). Under the Australian Government's current Reef programme, a further \$10 million in funding for this programme has been committed for the five years until 2018. A key objective of the programme is to expand the Traditional Use of Marine Resources Agreements (TUMRA) program across the Great Barrier Reef catchment. TUMRA's provide an agreed basis for Traditional Owners and marine managers to work together to protect cultural values and to manage culturally important species in accordance with traditional lore and to ensure sustainability. Six TUMRAs and an Indigenous Land Use Agreement covering marine waters are now in place, with several TUMRAs currently under development.

Addressing illegal activities that may impact on marine turtles and dugong is a high priority for the Land and Sea Country Partnerships programme. Compliance Officers have been appointed to coordinate compliance activities with Traditional Owners and other government agencies engaged in Indigenous compliance matters within the Great Barrier Reef Marine Park (GBRMP). Compliance responses are targeted based on intelligence received from Traditional Owners and the broader community. Coordinated cross-agency patrols are conducted to target high risk areas and high risk activities. Compliance related training programs are being delivered to compliance staff, Indigenous rangers and Indigenous communities.

Addressing illegal activities that may impact on marine turtles and dugong is a high priority of the Dugong and Turtle Protection Plan via actions including the Specialised Indigenous Ranger Programme for marine conservation and strengthened enforcement and compliance; Australian Crime Commission investigation into the poaching and transportation of turtle and dugong meat and the tripling of penalties for poaching and illegal trade of turtle and dugong meat.

Indigenous Community Compliance Liaison Officers have been appointed to coordinate compliance activities with Traditional Owners and other government agencies engaged in Indigenous compliance matters within the Great Barrier Reef Marine Park (GBRMP). Compliance responses are targeted based on intelligence received from Traditional Owners and the broader community, with all reports relating to dugong and turtle take (ie, nets, hunting etc) followed up. Reports regarding trade in dugong or turtle meat and animal cruelty are provided to State compliance officers for follow-up. Coordinated cross-agency patrols are conducted to target high risk areas and high risk activities. Compliance related training programs are being delivered to compliance staff, Indigenous rangers and Indigenous communities.

Species restoration

> Recovery of the species is addressed in the Recovery Plan for Marine Turtles in Australia. This plan sets out recovery objectives and the actions required to achieve those objectives. Projects have been undertaken to remove feral dogs and pigs that predate on marine turtle nests. These projects have been funded through the Australian Government's Caring for our Country Program.

The Australian Government has committed \$3.5 million toward a feral pig control programme to address the impacts of feral pigs on turtle nesting in Far North Queensland. This money will match money committed by the Queensland Government for pig control in Queensland National Parks.

Habitat protection

> Habitat critical to the green turtle has been protected within marine and terrestrial parks, particularly the

Great Barrier Reef Marine Park, Moreton Bay Marine Park, Great Sandy Marine Park, Coral Sea Marine Reserves (Coringa-Herald and Lihou Reef), Ashmore Reef National Nature Reserve, Cartier Island Marine Reserve, Ningaloo Marine Park and Pulu Keeling National Park.

'Go Slow' areas in Queensland Marine Parks further protect key habitat areas from threats associated with boat strike.

Other

> Australian Government and State legislation include provisions to control activities that have, may have, or are likely to have a significant impact upon populations or individuals.

In addition, under the EPBC Act, actions that have a significant impact on marine turtles or involve killing, injuring or taking them in Commonwealth marine areas are illegal without prior approval from the Australian Government.

4. If no activities have been carried out for this species in the reporting period, what has prevented such action being taken?

> N/A

5. Describe any future activities that are planned for this species:

> Ongoing recovery, research, and monitoring programs as guided by the Marine Turtle Recovery Plan, with additional habitat protection if required.

### Species name: *Caretta caretta*

1. Please provide published distribution reference:

> Recovery Plan for Marine Turtles in Australia (2003) Prepared by the former Australian Government Department of Environment, Water, Heritage and the Arts. The Plan can be viewed at: <http://www.environment.gov.au/coasts/publications/turtle-recovery/index.html>

2a. Summarise information on population size (if known):

unclear

> Loggerhead meta-population numbers and stability differ across their Australian range. There are three genetically distinct populations of loggerhead turtles in Australia: two in Queensland (Mon Repos/ Wreck Rock and the Swains Reefs) and one in Western Australia. The eastern Australia population is the most significant in the southern Pacific Ocean.

Updated information on the Australian stocks of loggerhead turtles can be found in: Limpus, C.J. 2008, A biological review of Australian marine turtle species. Environmental Protection Agency, Brisbane

2b. Summarise information on distribution (if known):

stable

3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

Research

> See Australia's National report to the Indian Ocean and South-east Asia Turtle MoU at: <http://www.ioseaturtles.org/>.

Additionally, research and monitoring of marine turtle nesting and foraging populations of the Great Barrier Reef Marine Park and adjacent Queensland coast (Great Barrier Reef Marine Park Authority, and Queensland Department of Environment and Heritage Protection) has been conducted. Monitored rookeries include the Mon Repos and Wreck Rock beaches, Capricorn Bunker Islands (Heron, Wreck, Northwest Islands) and Swains Reefs

Identification and establishment of protected areas

> Species protection does also occur through marine reserves established for multiple species in Australian waters (Temperate East Commonwealth Marine Reserves Network, Coral Sea Commonwealth Marine Reserve, North Commonwealth Marine Reserves Network, North-west Commonwealth Marine Reserves Network, South-east Commonwealth Marine Reserve Network and the South-west Commonwealth Marine Reserve Network).

Monitoring

> Turtle monitoring programs are ongoing in Western Australia at Dirk Hartog and Murion Islands, Ningaloo Marine Park and at Ashmore Reef National Nature Reserve.

Surveys, tagging, beach track count, hatchling success, nest predation, hatchling orientation, predation and dispersal studies are ongoing at a range of locations in WA from Dirk Hartog Island north to Cape Domett. Main monitoring is of nesting Green, Hawksbill, Loggerhead and Flatback. Main census for Loggerheads on Dirk Hartog Island and Gnaraloo.

A state tagging database has been developed and now accommodates data entry, quality check and downloading a spatial interface, to view records on Google Earth for multiple species and all projects licensed by Western Australian Department of Environment and Conservation.

Species protection

> The species is afforded protection under the EPBC Act. Additionally, species protection is enhanced within protected areas listed in Habitat Protection.

Species restoration

> Recovery of the species is addressed in the Recovery Plan for Marine Turtles in Australia. This plan sets out recovery objectives and the actions required to achieve those objectives.

Habitat protection

> Protected Areas cover certain critical loggerhead turtle habitat, including the Great Barrier Reef Marine Park, Mon Repos Conservation Park, Moreton Bay Marine Park, Great Sandy Marine Park, Ashmore Reef National Nature Reserve, Cartier Island Marine Reserve and Ningaloo Marine Park.

'Go Slow' areas in Queensland Marine Parks further protect key habitat areas from threats associated with boat strike.

Other

> Australian Government and State legislation include provisions to control activities that have, may have or are likely to have a significant impact upon populations or individual.

In addition, under the EPBC Act, actions that have a significant impact on marine turtles or involve killing, injuring or taking them in Commonwealth marine areas are illegal without prior approval from the Australian Government.

The Department of the Environment has worked closely with the COP-Appointed Councillor for Marine Turtles to develop a single species action plan for loggerhead turtles in the South Pacific Ocean. The Australian government provided both financial and logistical support for a technical meeting with the aim of elaborating a single species action plan for loggerhead turtles. It is anticipated that the draft single species action plan will be presented to the 18th Scientific Council meeting for consideration and to the 11th CoP for endorsement.

4. If no activities have been carried out for this species in the reporting period, what has prevented such action being taken?

> N/A

5. Describe any future activities that are planned for this species:

> Ongoing recovery, research and monitoring programs, with additional habitat protection if required.

### **Species name: *Eretmochelys imbricata***

1. Please provide published distribution reference:

> Recovery Plan for Marine Turtles in Australia (2003) Prepared by the former Australian Government Department of Environment, Water, Heritage and the Arts. The Plan can be viewed at: <http://www.environment.gov.au/coasts/publications/turtle-recovery/index.html>

2a. Summarise information on population size (if known):

unclear

> Hawksbill turtle meta-population numbers and stability differ across their Australian range. The total population of hawksbill turtles in Australia is unquantified; however, Australia is known to hold the largest breeding population in the world. In Australia, there are two genetically separate subpopulations, one in the northern Great Barrier Reef, Torres Strait and Arnhem Land, while the other occurs on the North West Shelf of Western Australia. Nesting hawksbill turtles from the northern Great Barrier Reef are known to migrate to the Northern Territory (Australia), the southern coast of Papua (formerly Irian Jaya) and Papua New Guinea. Hawksbill turtles that forage on the Great Barrier Reef are known to migrate to neighbouring countries including PNG, Vanuatu, and the Solomon Islands.

Several thousand females nest in Queensland and around 3,000 females nest in Western Australia each year. Major nesting of hawksbill turtles in Australia occurs at Rosemary Island and Varanus Island in Western Australia and in the northern Great Barrier Reef and Torres Strait. Serious population declines of hawksbill turtles have been recorded worldwide. In Australia, long-term monitoring of nesting turtles at Milman Island in the Torres Strait has shown that the number of hawksbill turtles has been declining by 3% to 4% per year for at least ten years.

A site was selected for long term monitoring at North East Island, Groote Eylandt in 2007 and monitoring has



continued since then.

Updated information on the Australian stocks of hawksbill turtles can be found in: Limpus, C.J. 2008, A biological review of Australian marine turtle species. Environmental Protection Agency, Brisbane

2b. Summarise information on distribution (if known):

stable

3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

Research

> See Australia's National report to the Indian Ocean and South-east Asia Turtle MoU at: <http://www.ioseaturtles.org/>

Research into the populations of hawksbill turtles at Cocos (Keeling) Islands Conservancy has been undertaken annually since 1999. These Islands are listed as critical habitats in the Marine Turtle Recovery Plan (2003) and this research contributes to the objectives of IOSEA Marine Turtle MoU.

Additional activities include research and monitoring of marine turtle nesting and foraging populations of the Great Barrier Reef Marine Park (Great Barrier Reef Marine Park Authority, and Queensland Department of Environment and Heritage Protection). Monitored rookeries in Queensland include Milman Island and foraging sites at Heron Island Reef and the Howick Group.

Other projects include the Key Sites for Turtle Projects in Western Australia; the Ningaloo Marine Park turtle conservation program since 2002 and turtle monitoring in Ashmore Reef National Nature Reserve.

Identification and establishment of protected areas

> Species protection does also occur through marine reserves established for multiple species in Australian waters (Temperate East Commonwealth Marine Reserves Network, Coral Sea Commonwealth Marine Reserve, North Commonwealth Marine Reserves Network and the North-west Commonwealth Marine Reserves Network.).

Monitoring

> In addition to those listed above, surveys, tagging, beach track count, hatchling success, nest predation, hatchling orientation, predation and dispersal studies are ongoing at a range of locations in WA from Dirk Hartog Island north to Cape Domett. Main monitoring is of nesting Green, Hawksbill, Loggerhead and Flatback. Main census for Hawksbills on Rosemary Island.

A state tagging database has been developed and now accommodates data entry, quality check and downloading a spatial interface, to view records on Google Earth for multiple species and all projects licensed by the Western Australian Department of Environment and Conservation.

Species protection

> The species is afforded protection through the EPBC Act. Additionally, species protection is enhanced within protected areas listed in Habitat Protection.

Species restoration

> Recovery of the species is addressed in the Recovery Plan for Marine Turtles in Australia. This plan sets out recovery objectives and the actions required to achieve those objectives.

Habitat protection

> Protected Areas cover certain critical hawksbill turtle habitat, including the Great Barrier Reef Marine Park, Ashmore Reef National Nature Reserve, Cartier Island Marine Reserve, Ningaloo Marine Park and Pulu Keeling National Park.

Other

> Federal Australian Government and State environmental impact legislation including provisions to control activities that have, may have or are likely to have a significant impact upon populations or individuals.

In addition, under the EPBC Act, actions that have a significant impact on marine turtles or involve killing, injuring or taking them in Commonwealth marine areas are illegal without prior approval from the Australian Government.

4. If no activities have been carried out for this species in the reporting period, what has prevented such action being taken?

> N/A

5. Describe any future activities that are planned for this species:

> Ongoing recovery, research and monitoring programs, with additional habitat protection if required.

**Species name: *Lepidochelys olivacea***

## 1. Please provide published distribution reference:

> Recovery Plan for Marine Turtles in Australia (2003) Prepared by the former Australian Government Department of Environment, Water, Heritage and the Arts. The Plan can be viewed at: <http://www.environment.gov.au/coasts/publications/turtle-recovery/index.html>

## 2a. Summarise information on population size (if known):

unclear

> Olive ridley turtle meta-population numbers and stability differ across their Australian range. No concentrated nesting has been found in Australia. Low density nesting occurs along the Arnhem Land coast of the Northern Territory and scattered nesting occurs in the Gulf of Carpentaria and other areas of the Northern Territory. Isolated and scarce nesting has been recorded in Western Australia. Updated information on the Australian stocks of olive ridley turtles can be found in: Limpus, C.J. 2008, A biological review of Australian marine turtle species. Environmental Protection Agency, Brisbane  
Low density nesting occurs in neighbouring countries such as PNG and Indonesia. There is limited nesting of this species in the western Pacific Ocean and South Eastern Asia and therefore the Australian population may represent an isolated breeding population.

## 2b. Summarise information on distribution (if known):

stable

## 3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

Research

> See Australia's National report to the Indian Ocean and South-east Asia Turtle MoU at: <http://www.ioseaturtles.org/>

Research and monitoring is being conducted at nesting beaches along the northwestern coast of Cape York Peninsula, Queensland and in the Tiwi Islands, NT. Data is also being collected on stranded turtles caught by ghost nets.

Identification and establishment of protected areas

> Species protection does also occur through marine reserves established for multiple species in Australian waters (Coral Sea Commonwealth Marine Reserve, North Commonwealth Marine Reserves Network, North-west Commonwealth Marine Reserves Network).

Species protection

> The species is afforded protection through the EPBC Act. Additionally, species protection is enhanced within protected areas listed in Habitat Protection.

Species restoration

> Recovery of the species is addressed in the Recovery Plan for Marine Turtles in Australia. This plan sets out recovery objectives and the actions required to achieve those objectives.

Habitat protection

> The Great Barrier Reef Marine Park covers certain turtle habitat that may be important to foraging olive ridley turtles.

Other

> Australian Government and State environmental impact legislation include provisions to control activities that have, may have or are likely to have a significant impact upon populations or individuals.

In addition, under the EPBC Act, actions that have a significant impact on marine turtles or involve killing, injuring or taking them in Commonwealth marine areas are illegal without prior approval from the Australian Government.

## 4. If no activities have been carried out for this species in the reporting period, what has prevented such action being taken?

> N/A

## 5. Describe any future activities that are planned for this species:

> Ongoing recovery, research and monitoring programs, with additional habitat protection if required.

**Species name: *Dermochelys coriacea***

## 1. Please provide published distribution reference:

> Recovery Plan for Marine Turtles in Australia (2003) Prepared by the former Australian Government

Department of Environment, Water, Heritage and the Arts. The Plan can be viewed at:  
<http://www.environment.gov.au/coasts/publications/turtle-recovery/index.html>

2a. Summarise information on population size (if known):

unclear

> Leatherback turtle meta-population numbers and stability differ across their Australian range. No major nesting has been recorded in Australia, although scattered isolated nesting (1-3 nests per annum) occurs in the Northern Territory and in southern Queensland and northern NSW in the past. Nesting in Western Australia is still unknown or unconfirmed. Animals from populations in PNG, Malaysia and Indonesia use the continental waters of Australia to feed and migrate to temperate waters and periodically these turtles are found along the coastline as stranded turtles. A small number of sightings have been made off the mid-west coast of Australia off Victoria and Tasmania.

Updated information on the Australian stocks of leatherback turtles can be found in: Limpus, C.J. 2008, A biological review of Australian marine turtle species. Environmental Protection Agency, Brisbane

2b. Summarise information on distribution (if known):

not known

3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

Research

> See Australia's National report to the Indian Ocean and South-east Asia Turtle MoU at:  
<http://www.ioseaturtles.org/>

Identification and establishment of protected areas

> Species protection does also occur through marine reserves established for multiple species in Australian waters (Temperate East Commonwealth Marine Reserves Network, Coral Sea Commonwealth Marine Reserve, North Commonwealth Marine Reserves Network, North-west Commonwealth Marine Reserves Network, South-east Commonwealth Marine Reserve Network and the South-west Commonwealth Marine Reserve Network).

Species protection

> The species is afforded protection through the EPBC Act. Additionally, species protection is enhanced within protected areas listed in Habitat Protection.

Species restoration

> Recovery of the species is addressed in the Recovery Plan for Marine Turtles in Australia. This plan sets out recovery objectives and the actions required to achieve those objectives.

Other

> Australian Government and State environmental impact legislation include provisions to control activities that have, may have or are likely to have a significant impact upon populations or individuals.

In addition, under the EPBC Act, actions that have a significant impact on marine turtles or involve killing, injuring or taking them in Commonwealth marine areas are illegal without prior approval from the Australian Government.

4. If no activities have been carried out for this species in the reporting period, what has prevented such action being taken?

> N/A

5. Describe any future activities that are planned for this species:

> Ongoing recovery, research and monitoring programs, with additional habitat protection if required.

Miscellaneous information or comments on Appendix I marine turtles in general:

> N/A

## 5. FISH

### 5.1 General questions on Appendix I fish species

1. Is the taking of all Appendix I fish species prohibited by the national legislation listed as being implementing legislation in Table I(a) (General Information)?

Yes

1a. If the taking of Appendix I fish species is prohibited by law, have any exceptions been granted to the prohibition?

Yes

If Yes, please provide details (Include the date on which the exception was notified to the CMS Secretariat pursuant to CMS Article III(7)):

> The Australian Government granted a temporary exemption to the Western Australian state government to deploy 72 baited drum lines off eight heavily frequented beaches. The Western Australian shark mitigation program was established in response to seven fatal shark attacks over the last three years in that state. The program is targeting large (3m+) sharks, which includes the CMS listed makos and white sharks. The temporary exemption was valid until the 30th of April 2014, after which shark mitigation activities outside of these spatial and temporal limits will require assessment under Australian environmental law. The limited exemption was granted in order to address a matter of public safety of national significance. The CMS Secretariat was informed of the granting of this exemption on the 31 January 2014. No white sharks were caught or killed in the program, but five short fin makos were incidentally caught and killed in the program.

2. Identify any obstacles to migration that exist in relation to Appendix I fish species:

Other threats to migration (please provide details)

> Marine debris including ghost nets

2a. What actions are being undertaken to overcome these obstacles?

> The Australian Government and the relevant state and territory governments are working together on responding to marine debris problems in northern Australia. This is being done through a range of mechanisms, including

1. the implementation of a Threat Abatement Plan for the Impacts of Marine Debris on Vertebrate Marine Life, which was released in 2009. (Available at: <http://www.environment.gov.au/biodiversity/threatened/publications/tap/marine-debris.html>);
2. the ongoing development of marine debris monitoring surveys, including identifying the source of ghost nets, and cleanup programs, partly funded through the Australian Government's Caring For Our Country Program and directly by the Department of the Environment; and
3. representations to south East Asian countries including Indonesia on the ecological impacts of marine debris, particularly ghost nets.

2b. Please report on the progress / success of the actions taken.

> A pilot project funded by the Australian Government to investigate the origins and pathways of marine debris found in northern Australian marine environment was completed in 2009. This work focussed on modelling movements of ghost nets in northern Australia, with a long-term view of minimising marine debris and associated impacts on marine wildlife. A copy of the report is available at: <http://www.environment.gov.au/coasts/publications/origins-marine-debris.html>

CSIRO is undertaking a 3 year research project from 2011-14 to better understand the threat posed by marine debris to Australian wildlife and ecosystems, and to develop a national risk assessment tool for wildlife species affected by marine debris. The research is underpinned by a national survey of where - and how - marine debris accumulates along Australian coastlines. TeachWild, a national research and education program developed by Earthwatch Australia together with CSIRO and Shell Australia, is contributing data to the national survey. To date, almost 5,000 students from more than 50 Australian schools have participated. The national survey data is being collected using a statically rigorous beach cleanup methodology that allows for detailed analysis of factors such as marine debris type, occurrence and source.

GhostNets Australia, an alliance of indigenous communities from coastal northern Australia have focused on removal of derelict fishing nets from the marine environment and engagement with Indonesian communities to better understand the regional origins of these "ghost" nets and to begin to address the problem. Through innovative engagement with the broader community, this group have significantly raised the national profile of marine debris issues.

The Australian Government's Border Protection Command has an established tasking to detect and report all large marine debris, particularly derelict fishing nets, in Australian waters.

Community action is a major factor in abating the immediate threats posed to wildlife by marine debris. Under the Caring for our Country Initiative, approximately \$5 million has been directed to community and other organisations for efforts to remove marine debris from coastal environments. Volunteer beach cleanups, organised through non government organisations such as the Tangaroa Blue Foundation and Keep Australia Beautiful have removed and documented marine debris from the coastline. Community groups are developing and implementing source reduction plans for items of debris that are persistent problems. These plans encourage the community to identify and lobby stakeholders and bring about positive change.

Amendments to the International Maritime Organisation's International Convention for the Prevention of

Pollution from Ships (MARPOL) Annex V came into force on 1 January 2013. The amendments prohibit the discharge of all garbage from ships into the sea (except under very specific circumstances). This reverses the presumption that garbage may be discharged into the sea based on defined distances from shore and the nature of the garbage. The amendments also list requirements for garbage management plans on ships and port reception facilities for receiving waste. MARPOL is implemented in Australia through the Protection of the Sea (Prevention of Pollution from Ships) Act 1983.

2c. What assistance, if any, does your country require in order to overcome these obstacles?

> N/A

3. What are the major threats to Appendix I fish species (transcending mere obstacles to migration)?

Other (please specify)

> Mortality as a result of incidental or illegal capture in fisheries.

3a. What actions have been taken to prevent, reduce or control factors that are endangering or are likely to further endanger fish species beyond actions to prevent disruption to migrating behaviour?

> All Appendix I species are protected under Australia's primary piece of environmental legislation, the EPBC Act. All commercial fisheries with an export component are assessed under the EPBC Act. The assessments consider the impacts of the fishery on target and non-target species caught, and on the impacts of fishing on the broader marine environment, including on migratory species. Additionally, commercial fisheries operating in Commonwealth waters may also be assessed to determine the impacts of fishing operations on EPBC Act listed species, including migratory species. Conditions and/or recommendations may be placed on fisheries accreditations requiring actions to be taken within a specified period of time to improve the management of particular issues within the fishery, for example in relation to interactions with migratory species. Fisheries management agencies also monitor protected species interactions, including with EPBC Act listed migratory species, and report these to the Department of the Environment.

The Department of the Environment has developed a protected species evidence guide, which includes information on white sharks, to assist enforcement officers recognise any illegally taken white shark products when apprehending vessels suspected of engaging in illegal fishing.

3b. Please report on the progress / success of the actions taken.

> Since the first fisheries assessments were completed in 2002 most fisheries have been assessed several times, and there have been significant improvements in the ecological sustainable management of these fisheries.

3c. Describe any factors that may limit action being taken in this regard:

> N/A

3d. What assistance, if any, does your country require to overcome these factors?

> N/A

## 5.2 Questions on specific Appendix I fish species

In the following section, using the table format below, please fill in each Appendix I fish species, for which your country is considered to be a Range State. Please complete each table as appropriate, providing information in summary form. Where appropriate, please cross-reference to information already provided in national reports that have been submitted under other conventions (e.g. Convention on Biological Diversity, Ramsar Convention, CITES). (Attach annexes as necessary.)

### Species name: *Cetorhinus maximus*

1. Please provide published distribution reference:

> Last, P. R., Stevens, J. D. 2009. Sharks and Rays of Australia – Second Edition. CSIRO Publishing Australia.

2a. Summarise information on population size (if known):

not known

> Very little is known about the distribution of this fish in Australia and very few occurrences of the shark have been reported.

There are currently no estimates of population size in Australian waters. There are few available data sets to gauge population size and trends. The sharks are more commonly reported off the coasts of New Zealand.

2b. Summarise information on distribution (if known):

unclear

> The basking shark is widespread in cold to temperate coastal regions, however is rarely encountered in Australia. In Australia, its range extends from northern NSW, through Australia, and around Tasmania, to the southern coast of Western Australia (Last & Stevens 1994). This species has Appendix II listing in CITES and is listed on the IUCN red list as vulnerable.

3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

Species protection

> Under the EPBC Act, all CMS Appendix I and II shark species with Australia as a range state must be listed under the Act as migratory species. Basking sharks are listed under the EPBC Act as migratory species.

Species protection does also occur through marine reserves established for multiple species in Australian waters (Temperate East Commonwealth Marine Reserves Network, North-west Commonwealth Marine Reserves Network, South-east Commonwealth Marine Reserve Network and the South-west Commonwealth Marine Reserve Network).

Habitat protection

> Through marine reserves in south east, southern and south west Australian waters (Solitary Islands Marine Reserve, Tasmanian Seamounts Marine Reserve, Macquarie Island Marine Park, Great Australian Bight Marine Park, Ningaloo Marine Park) and the declaration of the Byron Marine Park that includes sanctuary areas for marine species.

4. If no activities have been carried out for this species in the reporting period, what has prevented such action being taken?

> Given the limited occurrences of resident/ seasonal populations of the shark in Australian waters, the species has attracted little research focus in Australian waters to date.

5. Describe any future activities that are planned for this species:

> In the event that reporting from shark scientists and other stakeholders would suggest a change in distribution in Australian waters of this species, Australia would then consider the need for initiating actions at that point.

## **Species name: *Carcharodon carcharias***

1. Please provide published distribution reference:

> Last, P. R., Stevens, J. D. 2009. Sharks and Rays of Australia – Second Edition. CSIRO Publishing Australia. White Shark (*Carcharodon carcharias*) Recovery Plan. Environment Australia, 2002. ISBN 0642548218

2a. Summarise information on population size (if known):

unclear

> There are few available data sets to gauge population size and trends, so it would have to be said that population trend is unclear. The best long-term indicator for white shark population numbers come from the New South Wales beach meshing program. The beach meshing data shows a steady decline in numbers caught between 1950 and 1980 and a possible stabilisation of numbers during the following 28 years to 2008. The program suggests numbers still remain well below historical levels.

2b. Summarise information on distribution (if known):

stable

> The white shark is widely distributed throughout temperate and sub-tropical oceans of the northern and southern hemispheres. In Australia its range extends from Southern Queensland around the southern coastline to North West Cape in Western Australia (White Shark Recovery Plan, Commonwealth of Australia 2002). Electronic tracking results indicate that the range may also extend into the Great Barrier Reef as far north as Lizard Island. Results from tracking/ tagging of the species suggests that non breeding/ and or juvenile sharks migrate to warmer water, with juvenile aggregation known to occur off Port Stevens from late winter to the beginning of summer (Bruce & Bradford 2008). Recent research has also shown that the Australian white shark population is likely made up of two discrete populations (eastern and western) separated by Bass Strait in southern Australia (Blower et al. 2012)

3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

Research

> The Australian Government has funded a project using novel genetic and electronic tagging techniques to estimate the size and trends of the east coast white shark population based on known juvenile aggregations; and also funded a project to identify aggregation sites on the west coast of Australia using a variety of survey methodologies such as aerial and on-water surveys and the use of acoustic tagging. These programs will help

establish the size and status of the Australian white shark population.

The WA Government has provided funding to acoustically 'tag' over 140 white sharks around southern Australia and monitor their movements around south-western Australian waters via an extensive network of acoustic receivers (<http://sharksmart.com.au/research>). The WA Department of Fisheries is also collaborating with the Canadian-funded Ocean Tracking Network project (see: <http://oceantrackingnetwork.org/>) to maintain a cross-shelf 'curtain' of acoustic receivers to monitor migrations of 'tagged' marine species (including white sharks) off Perth.

Research is being conducted to increasing our understanding of white shark habitat use and migration in Australian waters, including using satellite tracking to understand biologically important areas, much of which has been led by Dr Barry Bruce (CSIRO) and Dr Paul Rogers (SA Research and Development Institute, SARDI). The SARDI is undertaking research on the movements of white sharks around blue fin tuna mariculture sea cages near Port Lincoln, South Australia, and other SA coastal waters.

SA DEWNR in partnership with Rodney Fox Shark Expeditions and Conservation Council SA are monitoring the sharks in Neptune Islands Group Marine Park as part of a citizen science initiative.

Identification and establishment of protected areas

> As this species is wide ranging, no 'protected areas' have been designated for this species specifically. However, species protection does occur through marine reserves established for multiple species in Australian waters (Temperate East Commonwealth Marine Reserves Network, South-east Commonwealth Marine Reserve Network, South-west Commonwealth Marine Reserve Network, North-west Commonwealth Marine Reserve Network).

Monitoring

> All Commonwealth managed fisheries have mandatory reporting of interactions with listed species. Since the last National Report, there has been an improvement in the level of reporting, resulting from the introduction of a Memorandum of Understanding (MoU) between the Australian Fisheries Management Authority (AFMA) and the Department of the Environment. The MoU allows AFMA to report interactions with listed species to DSEWPaC on fishers' behalf, meaning all the fishers need do is report interactions in their fishing logbooks, which are routinely provided to AFMA. State fisheries agencies also monitor threatened species interactions with commercial fisheries, and there are similar protected species reporting MoUs in place between the Department of the Environment and some State fisheries management agencies.

Observer programs in Commonwealth and State and Territory fisheries are also used to gather information on interactions with protected species, and to validate reporting.

The Department of Primary Industries and Resources South Australian (PIRSA) requires that all Commercial fishers must report any wildlife interaction to PIRSA Fisheries and the Department of the Environment. Interactions include: collision or capture (hooked, netted or entangled), all interaction as well as those that relate to a species actually being landed onboard a vessel during a fishing operation are required to be reported. To assist fishers in this task, PIRSA and SARDI have produced a "Wildlife interaction", identification and logbook, widely distributed amongst all fishers.

Education/awareness rising

> The Department of the Environment has developed a protected species evidence guide, which includes information on white sharks, to assist enforcement officers recognise any illegally taken white shark products when apprehending vessels suspected of engaging in illegal fishing.

Species protection

> All Appendix 1 species are protected under the EPBC Act. Species protection also occurs through marine reserves in southeast, southern and southwest Australian waters (Temperate East Commonwealth Marine Reserves Network, South-east Commonwealth Marine Reserve Network, South-west Commonwealth Marine Reserve Network, North-west Commonwealth Marine Reserve Network). The White Shark is also fully protected in the coastal waters of Tasmania, South Australia, Victoria and Western Australia; and protected in the coastal waters of New South Wales and Queensland with exemptions made for beach meshing.

Species restoration

> In September 2002 the White Shark (*Carcharodon carcharius*) Recovery Plan was launched by the Australian Government. The plan aimed to implement actions to recover white shark numbers in Australia to a level that will see the species removed from the schedules of the EPBC Act.

It is mandatory for all threatened species recovery plans within 5 years of implementation. As such, the Department of the Environment, working with the National Shark Recovery Group, completed the review of the Recovery Plan in December 2008. The review focussed on the actions undertaken by jurisdictions against the 'specific recovery objectives' as specified in the original Recovery Plan. The review concluded that although progress had been made on many of the actions listed in the Recovery Plan there was no evidence of a recovery of the white shark population in Australian waters. The review recommended that the Recovery

Plan be varied to remove old actions and include new conservation priorities.

A workshop was held in 2009 to develop a new Recovery Plan for the white shark. Key stakeholders involved in the workshop included the relevant states, recreational and commercial fishing organisations and conservation groups. The resulting draft revised Recovery Plan was released for public comment in 2010 and the plan was finalised and released in 2013.

Habitat protection

> Queensland commenced the new zoning plan for Moreton Bay Marine Park in 2009 providing further protection to a range of different species and habitats. The Great Barrier Reef Marine Park was rezoned in 2004, with significant additional protection afforded to the biodiversity of the region. Other state marine parks are also in place and are reviewed regularly to ensure they provide adequate protection to the biodiversity of the region.

Other

> In July 2012 the Department of Agriculture released Australia's second National Plan of Action for the Conservation and Management of Sharks 2012 (Shark Plan 2).

Shark Plan 2 identifies how Australia will manage and conserve sharks, and ensure that Australia meets international conservation and management obligations. The plan identifies research and management actions across Australia for the long-term sustainability of sharks, including actions to help minimise the impacts of fishing on sharks. The plan provides a framework for the conservation of Australia's shark populations and for guiding the industries and communities that impact upon them. It was developed in conjunction with state, Northern Territory and Australian Government agencies, and has been endorsed by the Shark-plan Implementation and Review Committee and the Australian Fisheries Management Forum.

4. If no activities have been carried out for this species in the reporting period, what has prevented such action being taken?

> N/A

5. Describe any future activities that are planned for this species:

> Ongoing recovery, research and monitoring programs, education and compliance activities and implementation of regulatory provisions, with additional habitat protection if required.

### **Species name: Manta birostris**

1. Please provide published distribution reference:

> Last, P. R., Stevens, J. D. 2009. Sharks and Rays of Australia – Second Edition. CSIRO Publishing Australia.

2a. Summarise information on population size (if known):

unclear

2b. Summarise information on distribution (if known):

stable

> Mainly over the continental shelf off northern Australia.

3. Indicate and briefly describe any activities that have been carried out in favour of this species in the reporting period. (Please provide the title of the project and contact details, where available):

Species protection

> Under the EPBC Act, all CMS Appendix I and II species with Australia as a range state must be listed under the Act as migratory species. Giant manta rays are listed under the EPBC Act as migratory species.

Habitat protection

> The establishment of a National Representative System of Marine Protected Areas provides habitat protection for Manta rays in relevant areas.

4. If no activities have been carried out for this species in the reporting period, what has prevented such action being taken?

> N/A

5. Describe any future activities that are planned for this species:

> N/A

### **6. LISTING OF OTHER ENDANGERED MIGRATORY SPECIES IN APPENDIX I**

1. Is your country a Range State for any other endangered migratory species currently listed in Appendix I?



(according to the latest IUCN red data list). N.B.: States in which a species occurs as a vagrant (i.e. not "on its normal migration route") should not be treated as Range States. Please refer to Article 1 of the Convention for clarification.

No

If Yes, please provide details:

> N/A

1a. Is your country taking any steps to propose listing any of these species?

No

If yes, please provide details:

> N/A

1b. What assistance/measures, if any, does your country require to initiate the listing of these species?

> N/A

## III. Appendix II Species

### 1. INFORMATION ON APPENDIX II SPECIES

Information pertaining to the conservation of Appendix II species that are the object of CMS Agreements will have been provided in periodic Party reports to those instruments. It will suffice therefore to reference (below), and preferably append, a copy of the latest report that has been submitted to the Secretariat of each of the Agreement/MoUs to which your country is a Party.

#### IOSEA Marine Turtles MoU (2001)

Date of last report:  
> January 2012

Period covered:  
> 2008-2012

#### ACAP (2001)

Date of last report:  
> April 2012

Period covered:  
> 2012 to 2013

You have attached the following Web links/URLs to this answer.

[4th ACAP report](#) - Report from the 4th ACAP meeting

#### Pacific Islands Cetaceans MoU (2006)

Date of last report:  
> 2012

Period covered:  
> 2009 - 2012

#### Dugong MoU (2007)

Date of last report:  
> 18 October 2012

Period covered:  
> 2010 - 2012

You have attached the following documents to this answer.

[National Report\\_Australia 2012.doc](#) - Australia's national report for the 2012 meeting

#### Sharks MoU (2010)

Date of last report:  
> 2012

Period covered:  
> 2010 - 2012

You have attached the following documents to this answer.

[Shark conservation - Australia - Final info.docx](#) - Australia's report on shark conservation

## 2. QUESTIONS ON CMS AGREEMENTS

### Questions on the development of new CMS Agreements relating to Bird Species

1. In the current reporting period, has your country **initiated** the development of any CMS Agreements, including Memoranda of Understanding, to address the needs of Appendix II Bird Species ?

No

2. In the current reporting period, has your country **participated** in the development of any new CMS Agreements, including Memoranda of Understanding, which address the conservation needs of Appendix II

Bird Species ?

No

4. Is the development of any CMS Agreement for Bird Species, including Memoranda of Understanding, planned by your country in the foreseeable future?

No

### Questions on the development of new CMS Agreements relating to Marine Mammal Species

1. In the current reporting period, has your country **initiated** the development of any CMS Agreements, including Memoranda of Understanding, to address the needs of Appendix II Marine Mammal Species ?

No

2. In the current reporting period, has your country **participated** in the development of any new CMS Agreements, including Memoranda of Understanding, which address the conservation needs of Appendix II Marine Mammal Species ?

No

4. Is the development of any CMS Agreement for Marine Mammal Species, including Memoranda of Understanding, planned by your country in the foreseeable future?

No

### Questions on the development of new CMS Agreements relating to Marine Turtle Species

1. In the current reporting period, has your country **initiated** the development of any CMS Agreements, including Memoranda of Understanding, to address the needs of Appendix II Marine Turtle Species ?

Yes

If Yes, what is the current state of development?

> The Department of the Environment has worked closely with the COP-Appointed Councillor for Marine Turtles to develop a single species action plan for loggerhead turtles in the South Pacific Ocean. The Australian government provided both financial and logistical support for a technical meeting with the aim of elaborating a single species action plan for loggerhead turtles. It is anticipated that the draft single species action plan will be presented to the 18th Scientific Council meeting for consideration and to the 11th CoP for endorsement.

2. In the current reporting period, has your country **participated** in the development of any new CMS Agreements, including Memoranda of Understanding, which address the conservation needs of Appendix II Marine Turtle Species ?

Yes

If Yes, please provide details:

> As above.

3. If your country has initiated or is participating in the development of a new Agreement or Memorandum of Understanding, what assistance, if any, does your country require in order to initiate or participate in the instrument's development?

> Support and coordination of consultation/activities by the CMS Secretariat is helpful when communicating with various range states.

4. Is the development of any CMS Agreement for Marine Turtle Species, including Memoranda of Understanding, planned by your country in the foreseeable future?

No

### Questions on the development of new CMS Agreements relating to Terrestrial Mammal (other than bats) Species

1. In the current reporting period, has your country **initiated** the development of any CMS Agreements, including Memoranda of Understanding, to address the needs of Appendix II Terrestrial Mammal (other than bats) Species ?

No

2. In the current reporting period, has your country **participated** in the development of any new CMS Agreements, including Memoranda of Understanding, which address the conservation needs of Appendix II Terrestrial Mammal (other than bats) Species ?

No

4. Is the development of any CMS Agreement for Terrestrial Mammal (other than bats) Species, including Memoranda of Understanding, planned by your country in the foreseeable future?

No

### Questions on the development of new CMS Agreements relating to Bat Species

1. In the current reporting period, has your country **initiated** the development of any CMS Agreements, including Memoranda of Understanding, to address the needs of Appendix II Bat Species ?

No

2. In the current reporting period, has your country **participated** in the development of any new CMS Agreements, including Memoranda of Understanding, which address the conservation needs of Appendix II Bat Species ?

No

4. Is the development of any CMS Agreement for Bat Species, including Memoranda of Understanding, planned by your country in the foreseeable future?

No

### Questions on the development of new CMS Agreements relating to Fish

1. In the current reporting period, has your country **initiated** the development of any CMS Agreements, including Memoranda of Understanding, to address the needs of Appendix II Fish ?

No

2. In the current reporting period, has your country **participated** in the development of any new CMS Agreements, including Memoranda of Understanding, which address the conservation needs of Appendix II Fish ?

Yes

If Yes, please provide details:

> Australia participated in both the Sharks II and Sharks III meetings, which developed and finalised a Memorandum of Understanding for the conservation of migratory sharks. Australia contributed approximately \$AU20,000 to the Sharks MoU in 2013 and 2014.

3. If your country has initiated or is participating in the development of a new Agreement or Memorandum of Understanding, what assistance, if any, does your country require in order to initiate or participate in the instrument's development?

> N/A

4. Is the development of any CMS Agreement for Fish, including Memoranda of Understanding, planned by your country in the foreseeable future?

No

### 3. LISTING OF MIGRATORY SPECIES IN APPENDIX II

If Yes, please provide details:

> To be advised.

## IV. National and Regional Priorities

1. What priority does your country assign to the conservation and, where applicable, sustainable use of migratory species in comparison to other biodiversity-related issues

High

2. Are migratory species and their habitats addressed by your country's national biodiversity strategy or action plan?

Yes

2.1. If Yes, please indicate and briefly describe the extent to which it addresses the following issues:

Conservation, sustainable use and/or restoration of migratory species

Conservation, sustainable use and/or restoration of the habitats of migratory species, including protected areas

Actions to prevent, reduce or control factors that are endangering or are likely to further endanger migratory species (e.g. alien invasive species or by-catch)

Minimizing or eliminating barriers or obstacles to migration

Research and monitoring of migratory species

Transboundary co-operation

3. Does the conservation of migratory species currently feature in any other national or regional policies/plans (apart from CMS Agreements)

Yes

3.1. If Yes, please provide details:

> The Partnership for the Conservation of Migratory Waterbirds and the Sustainable Use of their Habitat in the East Asian-Australasian Flyway and its associated strategic implementation plan provides the regional framework for conservation of migratory waterbirds. Development of the Partnership which was launched in November 2006 was led by the Governments of Australia and Japan and Wetlands International. The Partnership succeeds the Asia Pacific Migratory Waterbird Conservation Strategy which guided regional cooperation on the conservation of migratory waterbirds from 1996 to 2006.

Australia is a member of the South Pacific Regional Environment Programme (SPREP) along with 21 Pacific island developing country members and three other developed countries. Conservation of migratory species, with a particular focus on marine migratory species, is addressed under the Island Ecosystems Programme of the SPREP. SPREP developed a revised Marine Species Program Framework in 2007, with associated Regional Action Plans for Marine Turtles, Dugongs and Cetaceans.

### 3a. Do these policies/plans cover the following areas?

Exploitation of natural resources (e.g. fisheries, hunting, etc.)

Yes

Economic development

Yes

Land-use planning

Yes

Pollution control

Yes

Designation and development of protected areas

Yes

Development of ecological networks

Yes

Planning of power lines

Yes

Planning of fences

Yes

Planning of dams

Yes

Other

Yes

If Yes, please provide details

> Environmental issues related to migratory species conservation such as climate change and pollution control are addressed under SPREP's other major programme - Pacific Futures.

4. Results - please describe the positive outcomes of any actions taken

> See above

## V. Protected Areas

1. Are migratory species taken into account in the selection, establishment and management of protected areas in your country?

Yes

If Yes, please provide details:

> The National Reserve System is Australia's network of protected areas, conserving examples of our natural landscapes and native plants and animals for future generations. Based on a scientific framework, it is the nation's natural safety net against our biggest environmental challenges.

The National Reserve System is one the world's great conservation partnerships. It is made up of national parks, ecosystems protected by farmers on their private working properties and reserves run by Indigenous communities, conservation organisations, community groups and all levels of government.

Guidance for the selection of terrestrial protected areas for inclusion in the national reserve system were developed cooperatively with State and Territory Governments (see Australian Guidelines for Establishing the National Reserve System, Commonwealth of Australia 1999); with a series of goals including:

1. to contain samples of all ecosystems identified at an appropriate regional scale;
2. to contain areas which are refugia or centres of species richness or endemism;
3. consider the ecological requirements of rare or threatened species and rare or threatened ecological communities and ecosystems, in particular those listed in the EPBC Act and other State, Territory and local government legislation or policy instruments; and
4. take account of special groups of organisms, e.g. species with specialized habitat requirements or wide - ranging or migratory species, or species vulnerable to threatening processes that may depend on reservation for their conservation.

Australia has undertaken the marine bioregional planning program, which focused on building knowledge of Australia's oceans and improving conservation and sustainable use of Australia's marine resources. The marine bioregional planning program included the identification and establishment of Commonwealth marine reserves as part of a representative system of marine protected areas and the development of marine bioregional plans within Australia's marine regions. The marine bioregional planning process was targeted at Commonwealth waters which start at the edge of state/ territory waters (usually 3 nautical miles from the coast) and extend to the outer limits of Australia's Exclusive Economic Zone (EEZ) some 200 nautical miles from shore.

In 2012, Australia met its international and national commitments to establish a National Representative System of Marine Protected Areas (NRSMPA) by 2012 through the establishment of 40 new Commonwealth marine reserves under the EPBC Act. These new reserves added more than 2.3 million square kilometres to the former national system of Commonwealth marine reserves and expanding Australia's marine protected areas in Commonwealth waters to 60, covering some 3.2 million square kilometres (including the Great Barrier Reef Marine Park). This is the largest representative network of marine protected areas in the world. State and the Northern Territory governments also have marine protected areas within their coastal waters under their own legislation and processes as part of the NRSMPA. These Commonwealth marine reserves play an important role in the long-term conservation of marine ecosystems and its related biodiversity, including migratory species.

The identification of the new Commonwealth marine reserves was guided by the Goals and Principles for the Establishment of the National Representative System of Marine Protected Areas in Commonwealth Waters to ensure that the network was representative of Australia's diverse marine environments and biodiversity. Management plans for these reserves will now be prepared.

Further information about Australia's Commonwealth Marine Reserves can be found at:  
<http://www.environment.gov.au/marinereserves>

1a. Please identify the most important national sites for migratory species and their protection status:

> The Australian Government, through the Director of National Parks, manages Commonwealth parks and reserves. These include areas located on Australian island territories and in Commonwealth waters. There are also many parks and reserves across Australia are managed by State and Territory Governments protected area management agencies (for further details refer to <http://www.environment.gov.au/parks/hoa.html>).

Further details on protected areas managed by the Australian Government can be found at:  
<http://www.environment.gov.au/parks/index.html>

### 1b. Do these protected areas cover the following areas?

Terrestrial

Yes

If Yes, please provide details and include the amount of protected areas coverage and the number of protected areas

> The most recent survey of terrestrial protected areas across Australia indicated that there are 10,521 protected areas, covering a total of 118,780,965 hectares, which is 15.45% of Australia.

**Aquatic**

No

If Yes, please provide details and include the amount of protected areas coverage and the number of protected areas

> Combined with marine.

**Marine**

Yes

If Yes, please provide details and include the amount of protected areas coverage and the number of protected areas

> The governments of Australia have continued to implement the National Representative System with several significant additions to Australia's marine protected areas estate. The National Representative System now covers an area of approximately 3,244,100 km<sup>2</sup> - representing about 36.3 per cent of Australian waters, excluding Antarctic waters.

Of this, 3,101,100km<sup>2</sup> of marine reserves occur in Commonwealth waters, with the remaining 143,000 km<sup>2</sup> occurring in State and Territory waters. Australia currently has the largest representative network of marine protected areas in the world.

Major achievements include:

- Establishment of nineteen marine parks by the South Australian Government covering nearly 27,000km<sup>2</sup>.
- Establishment of the Coral Sea Commonwealth Marine Reserve by the Australian Government covering approximately 989,800km<sup>2</sup>
- Establishment of the South-west Commonwealth Marine Reserves Network by the Australian Government covering approximately 508,600km<sup>2</sup>.
- Establishment of the North-west Commonwealth Marine Reserves Network by the Australian Government covering approximately 335,400km<sup>2</sup>.
- Establishment of the North Commonwealth Marine Reserves Network by the Australian Government covering approximately 157,400km<sup>2</sup>.
- Establishment of the Temperate East Commonwealth Marine Reserves Network by the Australian Government covering approximately 383,350km<sup>2</sup>.
- Implementation of the South-east Commonwealth Marine Reserves Network Management Plan 2013-2023 by the Australian Government.
- Establishment of the 696,000ha Camden Sound Marine Park in the Kimberley Region by the Western Australian Government in June 2012 to conserve the important humpback whale nursery and breeding area.
- Establishment of two additional marine parks in Western Australia in the south-west Capes area and Eighty Mile beach.

For albatrosses and petrels (ACAP listed species) all breeding sites within Australia's jurisdiction are protected areas and, two of these (Heard Island and Macquarie Island), were also inscribed on the World Heritage List in 1997. In addition, Australia exercises a 200 nautical mile Economic Exclusion Zone (EEZ) surrounding Heard Island, Macquarie Island and the Australian continent. The Australian EEZ possesses the characteristics of an IUCN Category IV or VI Protected Area by virtue of strict conservation measures prescribed by the Australian government to minimise the impact of longline fishing on seabirds, the key threat that seabirds face at sea. As a result of these measures the bycatch of albatrosses and petrels has been reduced to low levels in all Australian longline fisheries.

All breeding sites for southern giant petrels within the Australian Antarctic Territory have also been declared Antarctic Specially Protected Areas.

1c. Identify the agency, department or organization responsible for leading on this action in your country:

> The Australian Government Department of the Environment

2. Results - please describe the positive outcomes of any actions taken

> See above



## VI. Policies on Satellite Telemetry

1. In the current reporting period, has your country undertaken conservation/research projects that use satellite telemetry?

Yes

If yes what is the state of those projects

on-going

Please provide details

> MIGRATORY WATERBIRDS

Australia has undertaken several research projects for migratory waterbirds in the past involving satellite telemetry (refer previous national reports). The Australian Bird and Bat Banding Scheme generally manage such projects.

ALBATROSSES AND PETRELS

Satellite and other (e.g. geolocators) tracking of albatrosses and petrels to improve knowledge on at-sea distribution and interactions with fisheries. The highly dispersive nature of albatrosses and giant-petrels makes them vulnerable to longline and other fishing gears both inside and outside Australian jurisdiction. To understand the extent of this problem, the recovery plan developed for Australian albatrosses and giant-petrels identifies the need for improved knowledge on the oceanic distribution of these birds. Few data exist, however, on the at-sea movements of albatrosses and giant-petrels breeding within areas under Australian jurisdiction. Different species and populations are often exclusive in their pelagic distribution. The Tasmanian DPIPWE has undertaken tracking of albatrosses and petrels in Tasmania, including Macquarie Island. At present, only the at-sea distribution of shy albatrosses from Albatross Island is relatively well understood.

Reliable information on the at-sea dispersal strategies of albatrosses and giant-petrels is essential to enable the identification of key foraging areas and the countries whose fishing vessels are likely to be interacting with them. Studies of the at-sea distributions of albatross and giant-petrel populations breeding within areas under Australian jurisdiction continue to be a high priority.

Studying the at-sea movements of such highly dispersive species requires the use of satellite telemetry or other tracking techniques e.g. geolocators. The extreme distances covered by albatrosses and giant-petrels mean that satellite transmitters capable of providing data are often relatively heavy units. The well-being of the birds is held in the highest regard. For these reasons, satellite-tracking studies funded through the Recovery Plan uses minimal weight equipment and approved attachment methods. The use of harnesses to attach transmitters to birds is not approved.

BirdLife International maintains the global tracking database for all procellariiforms (which includes albatrosses and petrels). All Australian researchers working on satellite or other telemetry of albatrosses contribute to this database.

CETACEANS

Satellite tracking of larger baleen whales (especially humpback and blue whales) has been undertaken in research funded by the Australian Marine Mammal Centre. These studies provide data that feeds directly into recovery planning and management decisions relating to assessment of impacts.

Satellite tracking of pygmy blue whales (*Balaenoptera musculus brevicauda*) off Western Australia undertaken by M.C Double, K.C.S Jenner, M-N Jenner, I. Ball, S.Laverick and N.Gales through the Australian Marine Mammal Centre and Centre for Whale Research (Western Australia).

Satellite tracking is also an important component of work undertaken as part of Australia's participation in the Southern Ocean Research Partnership (the Partnership). The aim of the Partnership is to develop a multi-lateral, non-lethal scientific research program that will improve the coordinated and cooperative delivery of science to the International Whaling Commission.

Satellite tracking of entangled migrating cetaceans is also undertaken by each of the Australian States with support from the Australian Government. Satellite transmitters are attached to the entanglements allowing highly trained personnel to intercept and remove nets and ropes. The Australian Government recently announced \$2 million funding for the Whale and Dolphin Protection Plan. This will include the National Whale Stranding Action Plan which will provide assistance for state and territory government agencies to respond to whale stranding and entanglement events around Australia. In addition the Plan will provide funding for research into strandings and entanglements.

A project operating in South Australia, titled "Offshore migratory movement of southern right whales: addressing critical conservation and management needs" will contribute to advancement in the management

and conservation of southern right whales by providing data on the offshore migratory movements of whales from the Head of Bight (HoB) and Fowlers Bay aggregations, South Australia. Detailed information on the distribution and behaviour of southern right whales is fundamental for their conservation and management. This proposal addresses two high priority actions listed in the Recovery Plan for this species; understanding offshore distribution and, characterising baseline behaviour. Characterising migratory movements will also inform management of potential risks from human activities, such as offshore development(s).

Satellite Telemetry of whales is licensed by WA Department of Parks and Wildlife under the Wildlife Conservation Act 1950.

#### MARINE TURTLES

Information on current and archived marine turtle telemetry projects is available at [www.seaturtle.org](http://www.seaturtle.org).

Marine turtles have been satellite tracked by the Queensland Department of Environment and Heritage Protection and collaborators, for further information refer to the website:  
<https://www.ehp.qld.gov.au/wildlife/watching/turtle-tracking/>

Several other satellite tracking projects have been conducted in Australia including tracking turtles caught in long-lining operations off eastern Australia, Olive Ridley turtles off the Tiwi Islands in the Northern Territory, tracking green turtles and hawksbill turtles in the Torres Strait, tracking green turtles off Arnhem Land in the Northern Territory, and tracking flatback, green, loggerhead and hawksbill turtles off the northwest WA coast, including Shark Bay.

A total of 30 flatback turtles were fitted with GPS satellite transmitters by Pendoley Environmental. The turtles were released from Barrow Island (on behalf of Chevron Gorgon Gas project) and from Cemetery Beach (on behalf of BHP Billiton) and can be seen online at <http://www.seaturtle.org/tracking/>.

Nine female loggerhead turtles were fitted with PTTs in 2007 and 2008 at Ningaloo Reef. Three different migratory patterns were observed: one turtle remained at Ningaloo Reef, two turtles travelled southward to Shark Bay, and five turtles migrated north-eastward, moving into nearshore and other neritic habitats off the Pilbara, Kimberley and Cape York coasts.

Ref: Mau R., Halkyard B., Smallwood C. and Downs J. 2013. "Critical habitats and migratory routes of tagged loggerhead turtles (*Caretta caretta*) after nesting at Ningaloo Reef, Western Australia." In Proceedings of the First Western Australian Marine Turtle Symposium, 28-29 August 2012. Department of Parks and Wildlife, Perth, Western Australia.

#### DUGONGS

Satellite Telemetry of dugongs is licensed by WA Department of Parks and Wildlife under the Wildlife Conservation Act 1950.

Satellite tracking of dugongs has been undertaken by EHP in collaboration with James Cook University in Shoalwater Bay and Moreton Bay. Research has focussed on assessing the value of new GPS technologies that acquire locations more rapidly and hold the promise of improving resolution on longer (>10km, bay to bay) moves.

Dugongs were also tagged in the Pilbara region of Western Australia in 2013 as part of a resource development offset project.

#### SHARKS

For the great white shark and whale shark satellite telemetry has played an integral part in improving our understanding of their behaviour and ecology. Satellite tracking of the whale shark in Ningaloo Reef has improved knowledge of distribution and behaviour from 2004 to the present time, and it is anticipated that this will continue.

Satellite tracking of great white sharks has been conducted in southern Australia by CSIRO, and this work is ongoing, with the aim of yielding important data for the conservation of White Sharks, including migration routes, population health and the identification of key habitat sites. Results have contributed to improved understanding of migration patterns and aggregation sites for juvenile white sharks off the coast of Port Stevens.

Satellite and acoustic tracking is also being conducted on an ongoing basis by State agencies such as the Department of Primary Industries in NSW and the South Australian Research and Development Institute (SARDI) in SA. The SARDI is undertaking research on the movements of white sharks around blue fin tuna mariculture sea cages near Port Lincoln, South Australia, and other SA coastal waters.

The WA Government has established a significant and extensive acoustic telemetry infrastructure and 'tagging' programs to monitor white sharks movements around southern Australia (see previous sections).

Satellite tracking of great white sharks has been implemented in Western Australia by CSIRO. Conventional, satellite and PAT tags were used in W.A. (archival tags in South Australia not in W.A.) South Australia winter 2006 138+ NW Shelf to SW Western Australia and south coast maximum distance 5400 km. Movement from South Australian to Western Australia.

PAT tags have been attached to seven white sharks in Australian waters (five by CMAR scientists, two by other scientists). Data from three PAT tags deployed in Western Australia have shown a seasonal movement north along the Western Australian coast in spring and a return south in summer. These tags have recorded movements offshore of several hundred kilometres.

Whale sharks have been tracked using satellite technology in Western Australia from 2006 onwards. Two types of transmitters have been used in WA: 1 - small torpedo-shaped floats tethered either to the shark's dorsal fin or dorsal surface: 2 - satellite tags directly clamped to the dorsal fin with a short antennae which transmits when above surface of water. Tags transmit location and swimming depth information via polar-orbiting satellites fitted with ARGOS receivers. Tags are attached underwater by a snorkeller using a specially designed applicator that is designed to cause little or no reaction from the sharks. Tagging is carried out under Animal Ethics permits. CSIRO, the Australian Institute of Marine Science, NOAA Fisheries (Pacific Islands Fisheries Science Center), Hubbs-SeaWorld Research Institute (California), the WA Department of Parks and Wildlife, University of Western Australia, ECOCEAN, DSEWPaC, Director of National Parks, Wildlife Computers, BHP Billiton Petroleum, Woodside Energy, and Chevron have been partners in the research.

## 2. Are any future conservation/research projects planned that will use satellite telemetry?

Yes

If Yes, please provide details (including the expected timeframe for these projects):

> It is likely that future albatross, cetacean, dugong and shark and turtle research projects will utilise satellite, or other telemetry, subject to rigorous ethical examination.

## 3. Results - please describe the positive outcomes of any actions taken

> See above

## VII. Membership

1. Have actions been taken by your country to encourage non- Parties to join CMS and its related Agreements?

Yes

If Yes, please provide details. (In particular, describe actions taken to recruit the non-Parties that have been identified by the Standing Committee as high priorities for recruitment.)

> Australian posts continue to encourage governments that are Range States to the Agreement on the Conservation of Albatrosses and Petrels to accede to the Agreement. Funding support was provided by the Australian Government to key Range States with limited financial capacity to attend ACAP's 1st MoP and, collectively, ACAP Parties have continued such support for subsequent meetings.

1a. Identify the agency, department or organization responsible for leading on this action in your country:

- > - IOSEA MoU - Australian Government Department of the Environment
- ACAP - Australian Government Department of the Environment
- Dugong MoU - Australian Government Department of the Environment
- Pacific Cetaceans MoU - Australian Government Department of the Environment
- Sharks MoU - Australian Government Department of the Environment

2. Results - please describe the positive outcomes of any actions taken

> See above

## VIII. Global and National Importance of CMS

1. Have actions been taken by your country to increase national, regional and/or global awareness of the relevance of CMS and its global importance in the context of biodiversity conservation?

Yes

If Yes, please provide details:

> The Australian Government Department of the Environment was a key driver in the organisation of a technical meeting to elaborate a single species action plan under the CMS for loggerhead turtles in the South Pacific. It is anticipated that the draft single species action plan will be submitted to CoP11 for adoption.

The permanent Secretariat for the partnerships initiative "Conservation and Sustainable Use of Sites of International Importance to Migratory Birds in East-Asia, South East Asia and Australasia" is based in Incheon, Republic of Korea, and funded jointly by the Korean Ministry of Environment and the Incheon City Government. ROKAMBA was also signed on 6 December 2006 and entered into force on 13 July 2007. The agreement formalised Australia's relationship with the Republic of Korea in respect to migratory bird conservation and provides a basis for collaboration on the protection of migratory shorebirds and their habitat. While not CMS arrangements, these agreements and partnerships support CMS objectives.

2. Identify the agency, department or organization responsible for leading on this action in your country:

> Australian Government Department of the Environment.

3. Results - please describe the positive outcomes of any actions taken

> See above

## IX. Mobilization of Resources

1. Has your country made financial resources available for conservation activities having direct benefits for migratory species in your country?

Yes

If Yes, please provide details (Indicate the migratory species that have benefited from these activities):

> The most significant funding is the resourcing of the implementation of the EPBC Act. Under the Act migratory species are afforded protection. An action requires approval from the Environment Minister if it has, will have, or is likely to have a significant impact on a matter of national environmental significance (which includes listed migratory species). The Act also allows for recovery planning for threatened species, including threatened migratory species. The Australian Government has also provided substantial funding through the Caring for Our Country program and the Australian Marine Mammal Centre (AMMC). These initiatives are meeting both national and international objectives and are discussed above.

The Australian Government's International Whale and Marine Mammal Conservation Initiative (IWMCI) was established in 2008 as a key component of Australia's overarching strategy of bringing an end to all forms of commercial whaling, and improving the conservation of whales and marine mammals in our waters and around the world. The IWMCI aims to ensure that Australia remains at the forefront of international efforts to improve non-lethal research on whales and strengthens our leadership on whale conservation in the International Whaling Commission. To date, the Government has announced \$38 million in funding for the IWMCI: \$32.2 million in 2008/09 - 2013/14 and \$5.98 million for 2013/14 - 2014/15.

The IWMCI includes three key areas of activity: The Southern Ocean Research Partnership - an Australian-initiated and IWC-endorsed collaborative consortium of 10 countries undertaking non-lethal research on whales in the Southern Ocean. The Australian Marine Mammal Centre - an internationally recognised hub for non-lethal whale and marine mammal research. The Centre administers the Australian Marine Mammal Centre Grants Program. The IWMCI has enabled Australia to achieve a solid research and policy foundation to improve conservation outcomes for cetaceans and other marine mammals internationally and in Australian waters. This includes establishment of the Southern Ocean Research Partnership, the flagship Blue Whale Project, and hosting of a Symposium and accompanying workshops on Living Whales in the Southern Ocean (March 2012).

A six week, joint Australia-New Zealand Antarctic Whale Expedition was undertaken in February-March 2010 to demonstrate the effective and achievable methods available to address important scientific questions relating to the management and conservation of whales.

The Australian Antarctic Division and Australian Marine Mammal Centre conducted two voyages in January and March 2012 in Northern Bass Strait off Australia to develop techniques for locating endangered blue whales.

The IWMCI has also supported implementation of projects under the AMMC Grant Programs to improve understanding and management of dugongs, seals, whales and dolphins. Best practice conservation and management practices in Australian waters, informed by rigorous science has been provided through the leadership and coordination provided by the AMMC in Hobart.

The IWMCI has also helped Australia achieve the introduction of a range of important governance and conservation reforms within the IWC, including: conservation management plans, the Five Year Strategic Plan for Whale Watching and Web-based Living Handbook, increased research on small cetaceans, and improvements to financial and administrative processes.

Other significant projects include:

- The Australian Government has provided substantial funding to support monitoring/research projects such as the Shorebirds 2020 monitoring program, the AWSG leg-flagging database, the Monitoring Yellow Sea Migrants in Australia (MYSMA) project, and the UQ ARC linkage grant project on migratory shorebirds.

- The Australian Government, together with the Northern Territory Government, re-surveyed some populations of Eastern Curlew, Great Knot and other migratory shorebirds in remote areas of the Northern Territory, as a preliminary assessment of gross population change.

- Most recently, the Australian Government is partly funding an internship project that aims to characterise and analyse the policy landscape for the conservation of migratory shorebirds in the East-Asian Australasian Flyway.

- The Australian Government is leading a significant update of the migratory bird lists (annexes) of the migratory bird treaties between Australia and Japan, China and Republic of Korea (JAMBA, CAMBA &

ROKAMBA).

- The Australian Government has contributed approximately \$950,000 to two related white shark projects aimed at establishing the population size and status of the white shark population in Australian waters. It is anticipated that the projects will be completed by 2015.

- \$7 million will be committed over four years in a joint Queensland and Commonwealth Government initiative to target feral pigs to aid marine turtle recovery along the northern Queensland coast.

- Under Federal and State Legislation, proponents of industrial developments have been required to fill data gaps in relation to biology, habitat and impact. Some projects have contributed ten's of millions of dollars into sea turtle studies. Significant studies have been conducted at Scott Reef, Kimberley Coast (WA), Pilbara Coast (WA) and near Gladstone (QLD).

- The Australian Government through the Great Barrier Reef Marine Park Authority has also provided substantial funding for the conservation of dugongs and marine turtles. These initiatives are meeting both national and international objectives.

2. Has your country made voluntary contributions to the CMS Trust Fund to support requests from developing countries and countries with economies in transition?

No

3. Has your country made other voluntary financial contributions to support conservation activities having direct benefits for migratory species in other countries (particularly developing countries)?

Yes

If Yes, please provide details (Indicate the migratory species that have benefited from these activities):

> The Australian Government provided a number of voluntary contributions, including:

- \$AU75,000 to implement key actions under Resolution 10.4 - Marine Debris;
- \$AU20,000 to the IOSEA for marine turtle conservation plan implementation;
- \$AU20,000 to the Sharks MoU for conservation plan implementation;
- \$AU20,000 to SPREP for dugong plan implementation.

4. Has your country provided technical and/or scientific assistance to developing countries to facilitate initiatives for the benefit of migratory species?

Yes

If Yes, please provide details (Indicate the migratory species that have benefited from these activities):

> The Australian Government provided financial and technical assistance to convene a meeting in March 2014 to elaborate a single species action plan under the CMS for loggerhead turtles in the South Pacific Ocean.

5. Has your country received financial assistance/support from the CMS Trust Fund, via the CMS Secretariat, for national conservation activities having direct benefits for migratory species in your country?

No

6. Has your country received financial assistance/support from sources other than the CMS Secretariat for conservation activities having direct benefit for migratory species in your country?

No

If Yes, please provide details (Indicate the migratory species that have benefited from these activities):

> N/A

## X. Implementation of COP Resolutions and Recommendations

**Please provide information about measures undertaken by your country relating to recent Resolutions and Recommendations since the last Report. For your convenience please refer to the list of COP Resolutions and Recommendations listed below:**

### Resolutions

Bycatch (incl. Recommendation) (6.2 / 7.2 / 8.14 / 9.18 / 10.14)

> NATIONAL POLICY ON FISHERIES BYCATCH

Bycatch is the take of non-target species during commercial fishing operations. The National Policy on Fisheries Bycatch is an expression of intent by all fisheries Ministers and the fishing industry about bycatch. It provides a national framework for co-ordinating efforts for bycatch including development of more selective fishing gear, mitigation measures and the reduction of wastage through identification of markets for bycatch. The policy provides options by which each jurisdiction can manage bycatch according to its situation in a nationally coherent and consistent manner.

COMMONWEALTH POLICY ON FISHERIES BYCATCH

In response to the National policy, the Australian Government finalised its bycatch policy in 2000. Under the policy, all Commonwealth fisheries are required to prepare Bycatch Action Plans (BAPs).

In 2005, a Ministerial Direction called for the Australian Fisheries Management Authority (AFMA) to:

- Manage the broader environmental impacts of fishing, including protected species;
- Minimise the incentives for discarding by ensuring it is factored into the setting of total allowable catch levels; and
- Enhance the monitoring of fishing activity, through increased use of vessel monitoring systems with daily reporting, on-board cameras and improved observer coverage.

Following advice from fishing industry, science and conservation organizations with regard to bycatch and discarding targets, AFMA implemented a 3 year Bycatch and Discard Program in early 2007. In 2008 AFMA released AFMA's Program for addressing Bycatch and Discarding in Commonwealth Fisheries: an Implementation Strategy. From 2010 to 2013 the AFMA Bycatch and Discard program operated under a joint funding model between AFMA and DAFF Caring for our Country. Due to a clear demonstrated need, the Program continued after 2013 in a business as usual capacity. The bycatch and discarding program is aimed at assisting fisheries tackle bycatch and discarding issues in a focused and cost-effective way.

The Bycatch and Discard Program develops fishery specific workplans which focus on 'high risk' bycatch and protected species as identified via the Ecological Risk Assessment process in accordance with the Implementation Strategy. The result of these risk assessments is a priority list identifying the key ecological areas in each fishery that require management attention. Ecological Risk Management strategies have now been developed to address the priority lists identified for each fishery. Bycatch and Discard Workplans and Ecological Risk Management strategies are developed by AFMA in consultation with Industry and research partners to find practical and affordable solutions. Ecological Risk Management reports and Bycatch and Discard Workplans are available from the AFMA website: <http://www.afma.gov.au/managing-our-fisheries/environment-and-sustainability/>.

AFMA has also extended some actions taken in September 2011 in response to reports of dolphin mortalities in waters adjacent to South Australia from gillnet fishing. These measures include: the Dolphin Gillnet Closure which shuts an area off South Australia to gillnetting; the Dolphin Observation Zone adjacent to the closed area with mandatory monitoring for gillnet fishing; and allowing for the use of hooks by affected gillnet concession holders in both the closed area and monitoring zone. The extension means that these measures will now remain in place until 23 September 2012, which will allow AFMA to complete further work on this issue, including consultation with stakeholders, industry members and advisory groups on the development of longer term or permanent solutions.

IPOA SEABIRDS

In 1999, in response to international concern, member countries of the United Nations Food and Agricultural Organisation (FAO) adopted the International Plan of Action for reducing the Incidental Catch of Seabirds in Longline Fisheries (IPOA-Seabirds). The IPOA-Seabirds is a voluntary instrument elaborated within the framework of the FAO Code of Conduct for Responsible Fisheries. In 2009, the FAO adopted Best Practice Technical Guidelines for IPOA/NPOA Seabirds which extended application of the IPOA to fishing gears other than longlines.

The government continues to pursue a series of arrangements to reduce the impact of seabird bycatch interactions in Australian fisheries. Information on the Threat Abatement Plan for the Incidental Catch (or By-Catch) of Seabirds During Oceanic Longline Fishing Operations is provided elsewhere in this report.



## IPOA SHARKS

As a member of the UN FAO and in response to the International Plan of Action for the Conservation and Management of Sharks, Australia committed to producing its own National Plan of Action for the Conservation and Management of Sharks (Shark-plan). Shark-plan 1 was based on the findings of the Shark Assessment Report completed in 2001. Shark-plan 1 was endorsed by all Australian Governments on 16 April 2004 and officially launched on 26 May 2004.

Shark-plan 1 directed several actions relating to the conservation and management of sharks within Australian waters. Responsibility for implementing actions under Shark-plan 1, as well as broader responsibility for shark conservation and management, lies with each jurisdiction (i.e. the States, Northern Territory and the Commonwealth) under the co-ordination of the Shark-plan Implementation and Review Committee. A review of Shark-plan 1 was recently carried out and the national Shark Assessment was updated. The 2009 Shark Assessment Report for the Australian National Plan of Action for the Conservation and Management of Sharks identifies significant changes that have occurred in fisheries since the release of the '2001 Shark Assessment Report' and identifies new and ongoing issues that should be considered in the context of the National Plan of Action for the Conservation and Management of Sharks.

Australia's second National Plan of Action for the Conservation and Management of Sharks (Shark-plan 2) was released by the Department of Agriculture in 2012 and identifies how Australia will manage and conserve sharks, and ensure international conservation and management obligations are met. The plan identifies research and management actions across Australia for the long-term sustainability of sharks, including actions to help minimise the impacts of fishing on sharks. It provides a framework for the conservation of Australia's shark populations and for guiding the industries and communities that impact upon them.

## Oil Pollution and Migratory Species (7.3)

> Australia has developed a National Plan to Combat Pollution of the Sea by Oil and Other Noxious and Hazardous Substances (the National Plan) (the Plan can be viewed at: [http://www.amsa.gov.au/Marine\\_Environment\\_Protection/National\\_Plan/Annual\\_Reports/AR\\_2002-2003/](http://www.amsa.gov.au/Marine_Environment_Protection/National_Plan/Annual_Reports/AR_2002-2003/)).

The National Plan is a national integrated Government and industry organisational framework enabling effective response to marine pollution incidents. The National Plan provides a national framework for responding promptly and efficiently to marine pollution incidents by designating competent national and local authorities, and maintaining the National Marine Oil and Chemical Spill Contingency Plans; detailed state, local and industry contingency plans; an adequate level of strategically positioned response equipment; and a comprehensive national training program, including conducting regular exercises.

## Wind Turbines and Migratory Species (7.5)

> Refer to section II.

## Climate Change Impacts on Migratory Species (8.13 / 9.7 / 10.19)

> Measures undertaken toward the reducing the impacts of climate change on migratory species are outlined for each Appendix 1 species under section II.

## Marine Debris (10.4)

> Australia provided funding of \$AU75,000 to the CMS Secretariat to implement key aspects of Resolution 10.4. This funding was used to address operational paragraphs 8a - c. It is anticipated that the reports from these projects will be presented to the Scientific Council and CoP11 for information and endorsement.

Further information on marine debris management and projects in Australia can be found in section I and II.

## Adverse Anthropogenic Impacts on Cetaceans and other Biota (8.22 / 9.19 / 10.24)

### > ENTANGLEMENTS

The Australian Large Whale Disentanglement Network was established in 2002 and comprises representatives from all state and territory governments. It aims to promote better disentanglement practices and response through an effective national communications and information-sharing network. Furthermore, the network aims to identify measures for minimising the occurrence of large whale entanglements. The Australian Government Department of the Environment facilitates the network by funding an annual workshop and arranging for participation from local and international experts.

The Australian Government recently announced \$2 million funding for the Whale and Dolphin Protection Plan. This will include the National Whale Stranding Action Plan which will provide assistance for state and territory government agencies to respond to whale stranding and entanglement events around Australia. In addition the Plan will provide funding for research into strandings and entanglements.

## SHIP STRIKES

'Measures for minimising the risk of ship strikes with cetaceans' have been taken up by the Marine

Environment Protection Committee (MEPC) of the International Maritime Organization (IMO). This decision was made following a joint submission from Belgium, Australia, Italy, IFAW, IUCN and UNEP/CMS/ASCOBANS Joint Secretariat. The MEPC has adopted an IMO guidance document for use by IMO Member Governments in addressing the issue of ship strikes. The Department of the Environment works with the Australian Maritime Safety Authority (AMSA) on this issue. Australia will continue to participate in the IWC's Ship Strikes Working Group to help develop a 5-Year Strategic Plan on ship strikes to reduce the risks of ship strikes across the world. The EPBC Act requires that all marine operators in the EEZ, including the Navy, report any ship strikes.

#### POLLUTION

The development of marine debris monitoring surveys, including identifying the source of ghost nets, and clean up programs has been partly funded through the Australian Government.

#### MARINE NOISE

The Australian Navy has implemented an Environment Management Plan for Australia's Maritime Exercise Areas as well as standard mitigation procedures to protect marine mammals and minimise the possibility of any adverse impact to wildlife when conducting training exercises at sea. The mitigation procedures within this Plan, which have been fully adopted by the Royal Australian Navy, are among the most stringent employed by any Navy in the world. They are utilised by Australian and foreign forces during any offshore exercise in Australian waters. A number of the mitigation procedures include minimising impacts from sonar exercises as well as explosions. The Royal Australian Navy has offered to transmit the EMP as well as some of the mitigation procedures relevant to managing marine noise.

The impacts of seismic surveying on whales are not fully understood. The Australian Government has developed guidelines to help the industry to avoid or minimise impacts on whales and dolphins from seismic survey activities. The EPBC Act Policy Statement 2.1 "Interaction between offshore seismic exploration and whales" includes a background paper and industry guidelines. The aim of the policy is to:

1. provide practical standards to minimise the risk of acoustic injury to whales in the vicinity of seismic survey operations;
2. provide a framework that minimises the risk of biological consequences from acoustic disturbance from seismic survey sources to whales in biologically important habitat areas or during critical behaviours; and
3. provide guidance to both proponents of seismic surveys and operators conducting seismic surveys about their legal responsibilities under the EPBC Act.

Copies of the policy statement are available on the internet at <http://www.environment.gov.au/epbc/publications/seismic.html>

#### Southern Hemisphere Albatross Conservation (6.3)

> See activities outlined in section II.

#### Impact Assessment and Migratory Species (7.2)

> The Australian Government's key piece of environmental legislation, the EPBC Act, provides the platform for the Australian Government to operate a world-class environmental assessment and approvals system. The EPBC Act regulates actions that are likely to have a significant impact on matters of national environmental significance, including listed migratory species. Under the EPBC Act, such actions are subject to a rigorous and transparent environmental assessment and approval process. The provisions of the EPBC Act are implemented in accordance with best practice environmental assessment and approvals, ensuring that all listed migratory species under the Act are afforded strong protection.

All commercial fisheries with an export component are also assessed under the EPBC Act. The assessments consider the impacts of the fishery on target and non-target species caught, and on the impacts of fishing on the broader marine environment, including on migratory species. Additionally, commercial fisheries operating in Commonwealth waters may also be assessed to determine the impacts of fishing operations on EPBC Act listed species, including migratory species. Conditions and/or recommendations may be placed on fisheries accreditations requiring actions to be taken within a specified period of time to improve the management of particular issues within the fishery, for example in relation to interactions with migratory species. Fisheries management agencies also monitor protected species interactions, including with EPBC Act listed migratory species, and report these to the Department of the Environment.

#### Antarctic Minke, Bryde's and Pygmy Right Whales (7.15)

> The assessment agreed on by the IWC Scientific Committee for Antarctic minke whales for 1982-1989 is no longer current, and consequently there is no current abundance estimate. A comprehensive assessment is currently underway. There are no agreed abundance estimates for Bryde's whales in the western north Pacific however a comprehensive assessment is currently underway. To date, the IWC Scientific Committee has not addressed pygmy right whales and thus has no estimates of abundance.

#### Sustainable Use (8.1)

> Australia has proactively sought to achieve sustainable use and conservation of migratory species. Australia has played a significant role in the development and implementation of regional conservation agreements for migratory species in the Oceania region. Domestically, Australia has provided national protection for threatened migratory species under the EPBC Act and state protection via various State legislative and policy instruments.

#### Implementation of Existing Agreements and Development of Future Agreements (8.5)

> Details of Australia's active implementation of programmes for species relevant to existing agreements are under section III of this report. Refer to section III for details of Australia's initiation and engagement toward developing future agreements under the CMS.

#### Concerted Actions for Appendix I Species (8.29)

> Refer to section II.

#### Concerted and Cooperative Actions (9.1 / 10.23)

> Australia is a range state for a number of species agreed for concerted actions:

- Fin whale
- Sei whale
- Sperm whale
- Southern right whale
- Blue whale
- Humpback whale

Australian legislation, the EPBC Act, allied with equivalent state legislation, protects all cetacean species in Australian waters. The EPBC Act makes it an offence to kill, injure, take, trade and interfere with any cetacean species. Five of the listed Appendix I species above (blue, fin, sei, humpback and southern right whale) are also listed as threatened species under the EPBC Act and any action that could impact on these species must obtain approval from the Environment Minister before being able to proceed.

Australia is supporting broader engagement on cetacean conservation in the Pacific Region, in particular under the auspices of the CMS Memorandum of Understanding on Cetaceans and their Habitats in the Pacific Island Region 2006 (CMS Pacific Cetaceans MoU). Australia supported the first and second meetings of signatories of the Pacific Cetaceans MoU and the development of the Pacific Islands Regional Guidelines for Whale and Dolphin Watching which are based on Australia's own guidelines for whale and dolphin watching.

The International Whaling Commission (IWC) is now an official observer to SPREP. Australia formally represented the IWC at the 24th Pacific Regional Environment Programme (SPREP) Meeting of Officials in Apia, Samoa in September 2013. Australia on behalf of IWC tabled a report on IWC activities in support of whale conservation. Australia works closely with SPREP's Threatened and Migratory Species Advisor to progress cetacean conservation in the region.

As Chair of the IWC's Standing Working Group on Conservation Management Plans, Australia is working with SPREP to take forward IWC Conservation Management Plans and related work to improve protection for whales in the region. SPREP attended as an observer the CMP Working Group's most recent meeting, in Brisbane, Australia, on 26 May 2013. The Working Group will task the IWC Scientific Committee to review the Oceania Humpback Recovery Plan from a CMP perspective and will receive updates from SPREP on implementation of the Plan. Australia provided its report on Cetacean Conservation Measures in the Pacific Islands Region, with a focus on Oceania Humpback Whales to SPREP members for discussion at the 24th SPREP meeting in September 2013. Australia will work with SPREP in refining the inventory and report to the next meeting of the IWC's Standing Working Group on Conservation Management Plans. A copy of the inventory is available on the IWC's website at:

[http://archive.iwcoffice.org/\\_documents/commission/IWC64docs/64-CC%2011.pdf](http://archive.iwcoffice.org/_documents/commission/IWC64docs/64-CC%2011.pdf).

Funding for research into the Solomon Islands dolphin population was provided by the IWC's Small Cetaceans Fund. The final report was considered by the IWC's Scientific Committee at its meeting in June 2013.

The Southern Ocean Research Partnership (SORP), which is the main component of Australia's International Marine Mammal Conservation Initiative (IMMCI), will, among other things, collect information on the distribution and behaviour of Pacific humpback whales on their feeding grounds off Antarctica and will provide information on many of the other Appendix I species listed above.

As part of the IMMCI, Australia established the Indian Pacific Fund (IPF) Research Grants Program and the first grant recipients were announced by the Minister on 5 June 2010, National Whale Day. The successful grants include four three-year projects in the waters off Papua New Guinea, Pakistan, Fiji and Bangladesh involving many of the species listed above.

Australia continues to work hard in the International Whaling Commission (IWC) to achieve conservation reforms that will benefit the Appendix I listed species above.

Australia is a range state for a number of species agreed for co-operative actions:

- Dusky dolphin
- Spectacled dolphin
- Indo-Pacific humpback dolphin
- Indian Ocean bottlenose
- Spotted dolphin
- Long-snouted spinner dolphin

Australian legislation, the EPBC Act, allied with equivalent state legislation, protects all cetacean species in Australian waters. The EPBC Act makes it an offence to kill, injure, take, trade and interfere with any cetacean species.

In Commonwealth waters, the Australian Fisheries Management Authority has implemented management arrangements to protect dolphins including spatial closure and changes to fishing practices. A formal strategy to limit dolphin bycatch is currently being developed.

The Australian Marine Mammal Centre (AMMC) has funded a number of research projects focused on the Australian snub-fin, Indo-Pacific humpback and Indian Ocean bottlenose dolphins. The full list of projects and reports of the work can be found on the AMMC website [www.marinemammals.gov.au](http://www.marinemammals.gov.au)

#### Priorities for CMS Agreements (9.2 / 10.16)

> Refer to section III and IV.

#### Migratory Marine Species (9.9 / 10.15)

> Australia remains very interested in work to reduce adverse human-induced impacts on cetaceans, and has provided comprehensive information on national activities under Resolution 9.1/10.23.

#### Ecological Networks (10.3)

> Australia supports the concept of ecological networks in its establishment of a network of protected areas, both terrestrial and marine. Refer to section V for further details.

#### Global Flyway Conservation (10.10)

> The Australian Government supports the implementation of Resolution 10.10. Refer to section II for information relevant to this Resolution.

#### CMS Strategic Plan 2006-2011 (8.2)

> Measures undertaken by Australia toward implementing the CMS Strategic Plan are outlined for each Appendix 1 species under section II.

#### Contribution of CMS in Achieving the 2010 Biodiversity Target (8.7)

> Measures undertaken by Australia toward implementing the CMS Strategic Plan are outlined for each Appendix 1 species under section II.

#### Synergies and Partnerships / Cooperation with other Conventions (8.11 / 9.11 / 10.21)

> Australia has demonstrated its commitment to providing constructive input and consistently takes this approach to all conventions to which is a signatory to. Despite demonstrating respect for the individual mandate for each convention, Australia supports the fostering linkages between the bodies of work for similar conventions such as the Convention of International Trade of Endangered Species.

#### National Reports for the Eighth and Ninth Meetings of the Conference of the Parties (8.24)

> Australia has provided National Reports to each Conference of Parties since joining in 1991. Australia has supported the move to an on-line reporting format.

#### CMS Information Priorities (9.3)

> Australia supports the continued development and implementation of the CMS Strategic Plan and the move to an on-line reporting format.

#### Outreach and Communication Issues (9.5 / 10.7)

> Australia supports the continued implementation of the CMS Outreach and Communication Plan 2012-14.

## Recommendations

### Recommendation 8.17 - Marine Turtles

> The Department of the Environment has worked closely with the COP-Appointed Councillor for Marine Turtles to develop a single species action plan for loggerhead turtles in the South Pacific Ocean. The Australian government provided both financial and logistical support for a technical meeting with the aim of elaborating a single species action plan for loggerhead turtles. It is anticipated that the draft single species action plan will be presented to the 18th Scientific Council meeting for consideration and to the 11th CoP for endorsement.

