CMS

2017 - 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 24 April 2017. The reporting period is from May 2014 to April 2017.

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.

The reporting format was 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). The 45th meeting of the Standing Committee recommended the use of the same format for reports submitted to COP12, with necessary adjustments to take into account relevant COP11 decisions, in particular amendments to the Appendices and resolutions.

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 and Energy

Please list any other agencies that have provided input
› Australian Government Department of Agriculture and Water Resources
Australian Fisheries Management Authority
Great Barrier Reef Marine Park Authority
Australian Antarctic Division
Department of Primary Industries (New South Wales)
Office of Environment and Heritage, Department of Planning and Environment (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 Environment, Land, Water and Planning (Victoria)
Department of Economic Development, Jobs, Transport and Resources (Victoria)
Department of Environment, Water and Natural Resources (South Australia)
Department of Primary Industries and Regions South Australia (South Australia)
Department of Primary Industries, Parks, Water and Environment (Tasmania)
Department of Environment and Heritage Protection (Queensland)
Department of Agriculture and Fisheries (Queensland)
Department of National Parks, Recreation, Sport and Racing (Queensland)

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
› May 2014 - March 2017

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

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Date of submission
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Implementation

Competent Authority:
› Australian Government Department of the Environment and Energy

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/about
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
Antarctic Marine Living Resources Conservation Act 1981
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
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

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

EPBC Act - Information about the EPBC Act

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
Threatened Species Strategy
Recovery Plans for threatened species such as marine turtles, cetaceans and sharks
Threat Abatement Plans for key threatening processes such as marine debris and bycatch of seabirds in longline fishing operations
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

Southern South American Grassland Birds MoU (2007)

Southern South American Grassland Birds MoU (2007)
☑ 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

Dugong MoU (2007)

Dugong MoU (2007)
☑ Signatory

Competent authority

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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

Competent authority

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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 and Water Resources
Australian Fisheries Management Authority
Torres Strait Regional Authority
Great Barrier Reef Marine Park Authority
State/Territory departments including:
Office of Environment and Heritage, Department of Planning and Environment (New South Wales)
Department of Primary Industries (New South Wales)
Department of Environment and Heritage Protection (Queensland)
Department of National Parks, Sport and Racing (Queensland)
Department of Agriculture and Fisheries (Queensland)
Department of Environment and Natural Resources (Northern Territory)
Department of Primary Industry and Resources (Northern Territory)
Department of Parks and Wildlife (Western Australia)
Department of Fisheries (Western Australia)
Department of Environment, Water and Natural Resources (South Australia)
Department of Primary Industries and Regions (South Australia)
Department of Environment, Land, Water and Planning (Victoria)
Department of Economic Development, Jobs, Transport and Resources (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 and Energy.

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 have been 52 research projects investigating migratory species that are supported by the ABBBS during the reporting period.

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. Australia hosted the latest round of consultative meetings between the four countries in October 2016. The full Australian report submitted to that meeting for information can be found in this report.

A Wildlife Conservation Plan for 35 species of migratory shorebirds was adopted by the Australian Government in January 2016. 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 and Water Resources, the Department of the Environment and Energy, the Australian Bureau of Agricultural and Resource Economics and Sciences, the Great Barrier Reef Marine Park Authority, the Fisheries Research Development Corporation, scientists, commercial and recreational fishers and environmental non-government organisations.

The Department of Agriculture and Water Resources is currently undertaking a review of Shark-plan 2 and its Operational Strategy in consultation with key stakeholders to assess performance and inform future directions.

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

SHARKS

In Western Australia, all sawfish species (F. Pristidae) and the white shark (Carcharodon carcharias) are listed

as Totally Protected Fish under the Western Australian Fish Resources Management Act (1994).
The Australian Government funded 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, which in part, takes advantage of known juvenile aggregations. Genetic material from the south-western Australian white shark population has also been collected in Western and South Australia through various State government funded projects. These samples have been provided to CSIRO for potentially similar estimation of the south-western Australian white shark population size. As a precursor to future genetic analyses of the south-western white shark population, CSIRO and the Western Australian Government conducted aerial surveys along the south coast of WA to look for juvenile aggregation sites. However, at the time of writing, neither aerial survey nor acoustic telemetry data have revealed any evidence of juvenile aggregations in WA waters.
Between 2009 and 2016, the WA Department of Fisheries operated a network of acoustic receivers throughout south-western Australian waters (including off Perth) to collect data relating to movements of white sharks 'tagged' with acoustic transmitters. This project described aspects of this species' inter-jurisdictional coastal migratory patterns and population distribution (McAuley R. B., Bruce B. D., Keay I. S., Mountford S., Pinnell T. and Whoriskey F. W. 2017. Broad-scale coastal movements of white sharks off Western Australia described by passive acoustic telemetry data. Marine and Freshwater Research. https://doi.org/10.1071/MF16222).
The WA Department of Fisheries is collaborating with the Australian Institute of Marine Science to review historical fisheries data and use satellite tagging and genetic sampling to investigate the population structure and status of hammerhead shark populations in Australian waters (Chin A., Simpfendorfer C. A., White W. T., Johnson G. J., McAuley R. B., Heupel, M. R. (in press). Crossing lines: a multidisciplinary framework for assessing connectivity of hammerhead sharks across jurisdictional boundaries. Scientific Reports).
In 2013, the WA Government announced a new shark mitigation strategy. This included a 3 month trial of baited drum lines along Perth metropolitan and south-west beaches (25 January 2014 – 30 April 2014). No white sharks were caught during that program, although five shortfin mako sharks (Isurus oxyrinchus) were caught (three of which were dead, one was euthanased and one released alive) and this program was not continued. The mitigation strategy also included adoption of serious threat guidelines through which two white sharks (Carcharodon carcharias) were captured and destroyed (both at Esperance on 2 October 2014). These guidelines are currently under review.
The 2013 wildlife management program for the whale shark interaction industry in Western Australia 'Whale shark management with particular reference to Ningaloo Marine Park' was implemented during the reporting period. 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 agreement, 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, CSIRO and ECOCEAN to help develop a better understanding of whale shark populations, movements and visitation trends to Western Australia.
In 2015-16 Parks and Wildlife commissioned AIMS to undertake a study on the tagging of whale sharks over the last 10 years.
Parks and Wildlife also commissioned AIMS to undertake a study on whale shark scarring (including causes).
Parks and Wildlife research into impacts to whale sharks was published in 2016: Raudino, H., Mau, R., Wilson, E., Rob, D., Gardner, S. & Waples, K. (2016). Whale shark behavioural response to tourism interaction in Ningaloo Marine Park and implications for future management. Conservation Science Western Australia 10.
To better coordinate and regulate whale shark research, Parks and Wildlife has produced a set of Guiding Principles for assessing applications for whale shark research.
As part of an adaptive management approach to shark cage diving, the South Australian Department of Environment, Water and Natural Resources has funded a monitoring program using acoustic tagging aimed to measure the average period of residency of white sharks at the Neptune Islands. Results are compiled annually and the residency measure is compared to levels measured in 2001 when tourism activity was much lower.
Indicators have been developed that inform various management responses in respect of tourism activity should the period of shark residency show signs of increase, decrease or stability when compared to the historic levels.
The South Australian Research and Development Institute has conducted research and monitoring, and contributed to workshops focussing on four CMS listed species since 2014 including: White shark (Carcharodon carcharias), Shortfin mako shark (Isurus oxyrinchus), Common thresher shark (Alopias vulpinus), and Bigeye thresher shark (Alopias superciliosus). Research has included monitoring white sharks in relation to cage-diving industry in the Neptune Islands Group Marine Park, tracking of pelagic sharks in Spencer Gulf, satellite tagging and molecular technology for Shortfin mako sharks in Australasia, and offshore surveys of pelagic sharks in the Great Australian Bight.

Some recent papers include:
Rogers, P.J., Drew, M., Bailleul, F., Goldsworthy, S.D. (2016). Offshore survey of the biodiversity, distributions and habitat use of pelagic sharks in the Great Australian Bight. GABRP Research Report Number 7, Great Australian Bight Research Program, August 2016, 77pp.
Rogers, P.J., and Huveneers, C. (2016). Residency and photographic identification of white sharks Carcharodon carcharias in the Neptune Islands Group Marine Park between 2013 and 2015. 2015. South Australian Research and Development Institute (Aquatic Sciences), Adelaide. SARDI Publication No. F2015/000825-1. SARDI Research Report Series No. 893. 125 pp
Heard, M., Sutton, S.G., Rogers, P.J., and Huveneers, C. (2016). Actions speak louder than words: Tournament angling as an avenue to promote best practice for pelagic shark fishing. Marine Policy 64, 168–173.
Rogers, P.J., and Bailleul, F. (2015). Innovative ways to ensure the future sustainability of the recreational fishery for shortfin makos (Isurus oxyrinchus) in Victoria. Final Report to the State of Victoria, Department of Environment and Primary Industries Recreational Fishing Grants Program. SARDI Research Report Series. No. 872. 69 pp.
Rogers, P.J., Huveneers, C., Page, B., Goldsworthy, S.D., Coyne, M., Lowther, A.D., Mitchell, J.G., and Seuront, L. (2015). Living on the continental shelf edge: habitat use of juvenile shortfin makos Isurus oxyrinchus in the Great Australian Bight, southern Australia. Fisheries Oceanography, 24, 3. 205–218.
Rogers, P.J., Corrigan, S., and Lowther, A. (2015). Using satellite tagging and molecular techniques to improve the ecologically sustainable fisheries management of shortfin makos (Isurus oxyrinchus) in the Australasian region. Tactical Research Fund. Adelaide, July. 97 pp.
Rogers, P.J., Huveneers, C, and Beckmann, C. (2014). Monitoring residency of white sharks, Carcharodon carcharias in relation to the cage-diving industry in the Neptune Islands Group Marine Park. South Australian Research and Development Institute (Aquatic Sciences), Adelaide. SARDI Publication No. F2014/000800-1. SARDI Research Report Series No. 818. 75 pp.
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 NPSR.
Support is being provided by the Queensland Department of Agriculture and Fisheries 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 Fisheries (NSW DPIF) 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.
In addition to the SMP that has been running since 1937, NSW recently implemented a series of measures to reduce the risk of shark interactions in other regions of NSW. The DPIF established a three stage program, comprised of: an independent review of emerging technologies for shark detection and deterrents; a stakeholder workshop (the 2015 NSW Scientific Shark Summit, commonly known as the Shark Summit); and trials of the technologies considered likely to be the most effective as determined by the Shark Summit.
The independent review was completed by Cardno (a professional infrastructure and environmental services company) in August and was assessed by shark experts from across the world at the Shark Summit held at Taronga Zoo in September 2015. After considering the advice from experts at the Shark Summit and consulting with communities on the North Coast of NSW, DPIF and key shark experts from the Shark Summit developed an integrated Shark Management Strategy involving a focussed North Coast response including but not limited to: increased surveillance, detection and deterrence; trialling and developing new technologies; funding for science and research; and increased community education and awareness. The Strategy reflected the key finding of the Cardno review and the Shark Summit that there is no single or simple solution to the issue of unprovoked shark interactions. The key objective of the new NSW Shark Management Strategy is to increase protection for beachgoers from shark interactions while minimising harm to sharks and other marine animals. The Strategy is a $16 million, scientifically driven, integrated 5-year program of projects and trials of emerging technologies to identify the most effective shark mitigation measures for NSW beaches. It also includes a shark monitoring network using acoustic receivers and was established in collaboration with WA Department of Fisheries. The DPIF uses internal acoustic tags for Bull, Tiger and White Sharks, and also uses externally mounted satellite tags on White Sharks. Further information on DPIF's shark management can be found at: http://www.dpi.nsw.gov.au/fishing/sharks/shark-management
In October 2016 following three shark incidents in three weeks at Ballina beaches, the NSW Government implemented a shark meshing trial between Evans Head and Lennox Head on the far north coast to complement the Strategy. The nets are being trialled alongside SMART (Shark Management Alert in Real-Time) drumlines and other initiatives of the Strategy. The SMART drumlines were developed in Reunion Islands and tested in NSW waters before an extensive roll-out program. The trial is being run in accordance with a

Management Plan, which requires that nets are fitted with whale alarms and dolphin pingers to deter those marine mammals from the nets, and daily checking of the nets by contractors and observers. The shark net trial commenced on 8 December 2016 and will be monitored and assessed by DPI Fisheries scientists. Information about the catches in the shark nets are being made publicly available on a monthly basis.
NSW DPIF introduced revised catch and effort reporting arrangements for NSW commercial fisheries in July 2009 and this arrangement is ongoing. 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 DPIF collects information regarding interactions with threatened and protected species as part of scientific observer programs and a mandatory reporting system. NSW DPI first implemented mandatory reporting of threatened / protected species interactions for all commercial fisheries in 2005 and this is ongoing. Implementation was supported by the development and distribution of a Threatened and Protected Species Identification Guide.
NSW DPIF 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 DPIF 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.
The NSW Department of Primary Industries Fisheries 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/or migratory species.
MARINE TURTLES AND DUGONG
In 2013-14, the Australian Government committed to implement a Dugong and Turtle Protection Plan, which aims 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 and Energy, Department of the Prime Minister and Cabinet and the Australian Crime and Investigation Commission (ACIC).
Under the Dugong and Turtle Protection Plan, the Australian Government has undertaken or is continuing to implement:
1. A specialised Indigenous ranger programme for marine conservation and strengthened enforcement and compliance;
2. An ACIC 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. An updated Recovery Plan for Marine Turtles of Australia; and
7. Development of Traditional Use of Marine Resource Agreements in the Great Barrier Reef.
The Australian Government has been 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. It is expected to be available mid 2017.
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 (NPRSR) and Traditional Owners.
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 Agriculture and Fisheries.
In NSW all marine wildlife (turtles, dugongs, whales, dolphins and sea snakes) stranding, mortality and turtle nesting events are recorded in Elements and is managed by the National Parks and Wildlife Service as part of the Office of Environment and Heritage (OEH). Elements includes marine wildlife records from the DPI Shark Management program.
Turtle nests in NSW are identified and where appropriate data loggers are placed with nests to actively manage and protect nest sites and to assist in the collation of data to better understand nesting location in NSW and identify trends in populations.
The Western Australian Department of Parks and Wildlife conduct a number of long-term sea turtle nesting monitoring studies across the State. In addition, several other organisations and industries within the State compliment this monitoring and research with their own programs.
WHALES

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.
Over the reporting period the Australian Government has worked with State and Territory governments on the following matters:
• Cetacean disentanglement and stranding events.
• Revision of the National Guidelines for Whale and Dolphin Watching 2005.
• Development of the draft National Strategy for Mitigating Vessel Strike of Marine Mega-fauna.
• The revision of the Conservation Management Plan for the Blue Whale 2015-2025.
On 13 May 2014 the Australian Government announced $2 million funding for the Whale and Dolphin Protection Plan. This Plan consists 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.
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 and Energy 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.
The dual State and Commonwealth Great Australian Bight Marine Park, in collaboration with the South Australian Research and Development Institute, conducted three aerial surveys in 2014 to study the spatial and temporal habitat usage at the Head of the Bight southern right whale aggregation. In September 2014 a satellite telemetry project, funded by the Australian Marine Mammal Centre, was undertaken at Head of Bight. The project was led by South Australian Research and Development Institute in collaboration with other partners, and provided the first data on offshore migratory movement patterns of three southern right whales from mainland Australia.
A 2012 review of the conservation status of mammals in Australia was published in 2014. Based on the reported abundance estimates demonstrating recovery of the humpback whale consistent with IUCN Red List guidelines, in 2015 the humpback whale was downlisted from vulnerable to conservation dependent in Western Australia under the Wildlife Conservation Act 1950.
Woinarksi, J., Burbidge, A. & Harrison, P. (2014). The Action Plan for Australian Mammals 2012. Collingwood, VIC: CSIRO Publishing
A trial eco-tourism activity of swimming with humpback whales was undertaken in Ningaloo, Exmouth in 2016, managed by the Western Australian government. The trial was successful and will be repeated in 2017 to further evaluate this interaction activity.
To reduce entanglement rates of mostly humpback whales (Megaptera novaeangliae) in fishing gear, a series of gear modifications were implemented into the WA commercial rock lobster fishery in 2014, eliminating surface rope in waters deeper than 20 metres and minimising float numbers. The effectiveness of these measures were assessed using a model that incorporated expected changes in whale population size, entanglement sighting probability, commercial fishing effort and inter-annual variation in timing of whale migrations. These analyses suggest that gear modifications have reduced entanglements by ~65% , relative to the expected growth rate of the Western Australian humpback whale population (population D).

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

Shark Management in NSW

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
BirdLife Australia
One of BirdLife Australia's core ongoing projects is the national Shorebirds 2020 Shorebird Monitoring Program. In its current form the project has been running since 2007 and is based on a 40-plus year population monitoring program of shorebirds all around Australia. Shorebirds 2020 is a collaborative effort of

Birdlife Australia and the Australasian Wader Study Group (AWSG). The key pillars of this program continue to include community engagement in the collection of spatially explicit data on shorebird distribution and numbers in Australia, its rigorous scientific analysis for population trends and threats, and the use of these data by BirdLife Australia for shorebird conservation either directly or through involvement of the Commonwealth Government, State Governments, Local Governments, community groups, and regional environmental land managers This project continues to have broad support of shorebird and wetland conservation groups and annually harnesses and relies upon thousands of hours of volunteer effort in monitoring migratory shorebirds at over 420 key sites. In addition to population monitoring around the country, the AWSG publishes the Stilt and Tattler (migratory shorebird specific journal and newsletter of the East Asian Australasian Flyway). The AWSG studies shorebird migration using banding, colour flagging and collection of biometric data as well as satellite tracking and the use of light sensitive geo-locators attached to birds to accurately map migration strategies of specific species.

In partnership with the Australian Government, State Governments and a range of other stakeholders, BirdLife Australia is in the process of developing a Migratory Shorebirds Conservation Action Plan that will operationalise some of the Very High and High priority actions listed in the Australian Government's Wildlife Conservation Plan for Migratory Shorebirds both on a National and International scale. Actions have been chosen from across the four objectives in the Wildlife Conservation Plan. BirdLife Australia is also a coordinator on the Far Eastern Curlew Task Force of the East Asian-Australasian Flyway Partnership. The Task Force is leading the implementation of the Far Eastern Curlew Single Species Action Plan endorsed by the Partnership in January 2017.

Off the back of the work that has been undertaken in partnership with AWSG in the region, BirdLife International and BirdLife Australia are working together with Seocheon County Government, the East Asian-Australasian Flyway Partnership (EAAFP) Secretariat and other stakeholders including local communities and NGOs, national government and international agencies to support and enable the long-term, participatory conservation of Geum Estuary in the Republic of Korea, the most important area for migratory waterbirds nationally. The Geum Estuary contains two Important Bird and Biodiversity Areas (IBAs), a Ramsar site, and an EAAFP Flyway Network Site and the long-term conservation plan includes securing World Heritage Site status for the site (with Wadden Sea Secretariat staff advising), and supporting the development of nature based tourism.

Broome Bird Observatory

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.

Hunter Estuary Wetlands Centre

The Hunter Estuary 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

MIGRATORY SHARKS

AIMS, CSIRO and ECOCEAN

The Australian Institute of Marine Science (AIMS), CSIRO 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. The Western Australian government is using an electronic monitoring system (EMS) as a research tool to investigate tourism interactions with whale sharks, potential impacts on whale sharks and compliance with the code of conduct. A review on scarring and potential impact of tagging on whale sharks has also been conducted by AIMS on behalf of the Western Australian government which has been used to produce guiding principles for assessing licence applications for research on whale sharks.

TRAFFIC

TRAFFIC is involved in the CMS Shark MOU. Glenn Sant, Fisheries Trade Programme Leader of TRAFFIC, based in Australia, is listed as one of the experts on the agreed list of experts to the MOU. In February 2016 Glenn Sant attended the first meeting of the MOU Advisory Committee as an invited expert and then attended the MOS2 as a TRAFFIC observer. The first meeting of the Sharks MOU Conservation Working Group was held in Bristol, UK in November 2016 of which Glenn Sant participated as an invited expert. As part of the outcomes of that meeting TRAFFIC was specifically asked to undertake activities which TRAFFIC is currently fundraising

for to complete species management risk assessments (which identify management gaps and provide a proxy measure of overfishing risk), which in turn will inform recommendations and production of factsheets to guide RFMO management protocols for CMS-listed species. The assessments will also identify other at risk species of concern for the signatories.

Northern Prawn Fishery Industry (Sawfishes)

Under co-management arrangements with Australian Fisheries Management Authority, NPF Industry Pty Ltd manages the Northern Prawn Fishery's Crew Member Observer (CMO) program. This program recruits crew working on the NPF trawlers and trains them to record interactions with all threatened, endangered and protected species including sawfish, marine turtles, sea snakes and syngnathids. The data collected through this program is used by CSIRO, in conjunction with AFMA scientific observer data and CSIRO prawn monitoring survey data, to assess sustainability of the species for the project 'Monitoring interactions with bycatch species using crew-member observer data collected in the Northern Prawn Fishery' for which NPFI is a co-investigator. NPFI is also working with CSIRO to improve identification of sawfish by fishers when reporting the interactions in their logbooks. In addition to this, CMOs are collecting tissue samples of sawfish for population genetics that will eventually enable population estimates once sufficient samples are collected.

MARINE TURTLES

NAILSMA

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.

NSW

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.

Three facilities in NSW (Australian Seabird Rescue, Dolphin Marine Magic and Taronga Conservation Society Australia) rescue and rehabilitate debilitated marine turtles under license from the National Parks and Wildlife Service. Australian Seabird Rescue conduct community education and research programs based on raising awareness on the threats to turtles and monitor and record turtle nesting locations including nest protection and monitoring activities. Dolphin Marine Magic conduct education and awareness raising programs and have partnered in a marine debris reduction program (Seal the Loop).

WA

The Western Australian Department of Parks and Wildlife conduct a number of long-term sea turtle nesting monitoring studies across the State including loggerhead turtles at Dirk Hartog Island, green, loggerhead and hawksbill turtles at Ningaloo Reef and hawksbill turtles at Rosemary Island. 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.

Western Australia Parks and Wildlife coordinate the Northwest Shelf Flatback Turtle Program (NWSFTCP) which is a large additional conservation program of the Chevron Gorgon Gas Project. This is valued at $32.5 m over 30 years to increase conservation and protection of flatback turtles through: a) surveying, monitoring and research; b) reducing interference to key breeding and feeding locations; and c) establishing information and education programs. The program is currently implementing a seven year plan and has numerous activities underway.

Through the Western Australian Marine Science Institution (WAMSI) a turtle project has been conducted across the Kimberley since 2013. This project has focused on mapping all turtle nesting beaches, understanding stock boundaries, investigating climate change impacts and increasing Indigenous engagement.

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, Humane Society International, Murdoch University Cetacean Research Unit, Organisation for the Rescue and Research of Cetaceans in Australia, Project Jonah Australia, Whale and Dolphin Conservation Australasia, Whales Alive, World Animal Protection, and World Wide Fund for Nature Australia.

The Australian Government holds bi-annual meetings of the Cetaceans Non-Government Organisation (NGO) Roundtable. 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. The 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.

IFAW

IFAW (International Fund for Animal Welfare) has a long history of engagement in CMS and continues to work on and support projects that mitigate the threats facing CMS listed species around Australia and internationally. IFAW has provided comment and submissions to a number of calls for public comment /

enquiries dealing with issues that are impacting on listed migratory species including whales, dolphins, sharks and turtles. Most recently these have included the Senate Committee's inquiry into the use of shark mitigation programs, comment on the Draft National Strategy for mitigating vessel strike of marine mega-fauna, and comments to the Government regarding the CMS Shark MoU.
IFAW has been a founding member of the NZ Hauraki Gulf Working Group consisting of NGO's, NZ Department of Conservation, the Ports of Auckland Authority and representatives from the shipping industry which was established to reduce the impact of shipstrike on Bryde's whales in the Hauraki Gulf. This successful partnership has allowed IFAW to provide expertise and advise to the Australian Government in the drafting of its Draft National Strategy for mitigating vessel strike in marine mega fauna, which will hopefully help reduce the impact of migrating cetaceans as well as marine turtles, sharks and dugong.
IFAW continues to provide the whale watching industry with education materials related to conducting responsible whale watching operations in Australian waters and engage with State and Federal Governments on guidelines for these operations to be undertaken with the lowest impact on wildlife.
IFAW is a founding member of the South Pacific Whale Research Consortium which recently held its biannual meeting in Auckland, NZ. The Consortium supports numerous research projects into whale populations across Australia, NZ and the South Pacific being undertaken by a number of Universities and private institutions.
IFAW is supporting and will participate in the Whales in our Changing Ocean conference in Tonga in April 2017, hosted by SPREP, where whale and dolphin conservation across the region will be discussed.
IFAW continues to work through many international and regional agreements where threats facing CMS migratory species are on the agenda including CMS, CITES, IWC, and SPREP. We are currently in the process of preparing to send an IFAW delegation to the 12th Meeting of the Conference of the Parties to CMS.
DUGONG
Sea World Research & Rescue Foundation and University of Queensland (UQ)
The Sea World Research & Rescue Foundation and University of Queensland have recently undertaken (2016) a health assessment on the Dugong population in Moreton Bay and identified the critical importance of protecting seagrass beds in the area. The results from the trials have proven predictions suggesting dugongs lead high energy and high nutrient lifestyles but feed on low nutrient, low energy food which is why the species growth and reproductive rates are so slow.
Studies have recently been undertaken by the University of Queensland on the hematology and serum biochemistry of dugongs in Queensland.
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 humpback whales and dugongs.
Surveys of dugong abundance and distribution in Western Australia have been conducted in the Pilbara by Murdoch University funded by Chevron Pty Ltd and Department of Parks and Wildlife and in the Kimberley by CSIRO for the Western Australian Marine Science Institution. Further surveys are planned from 2017-2019 to characterise dugong seagrass habitat in the Pilbara region in Western Australia in a collaborative project between Department of Parks and Wildlife, Edith Cowan University and Murdoch University. This project will attempt to link seagrass distribution to dugong distribution.
An aerial survey monitoring dugong abundance and distribution will be conducted this year in Shark Bay as part of the long-term monitoring program with a survey every 5 years. An additional aerial survey will be undertaken in 2017 by CSIRO assessing dugong distribution and abundance from Roebuck Bay to Eighty mile Beach in the Kimberley.
National Environmental Science Programme
A number of research projects have been recently completed by a range of researchers through the National Environmental Science Programme. This includes a number of studies directly on dugongs and seagrass habitats but also includes a large number of studies that indirectly benefit dugongs such as those focused on water quality. These studies can be found here: http://nesptropical.edu.au/.

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

National Environmental Science Programme
Hunter Estuary Wetlands Centre

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:
› The Gorgon Project is developing the Gorgon and Jansz-Io 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 is $1.5 million per annum for the first five years (2010-2015), then $1 million per annum for the next 55 years.
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 and Energy

2- Aquatic Mammals

› Australian Government Department of the Environment and Energy

3- Reptiles

› Australian Government Department of the Environment and Energy

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 and Energy

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:
› Any species listed as migratory under the Environment Protection and Biodiversity Conservation Act 1999 is also afforded protection from take or injury under the Great Barrier Reef Marine Park Act 1975 within the Great Barrier Reef Marine Park. All CMS Appendix I species and most Appendix II species are listed as migratory under the EPBC Act.

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 continues to be considered in Australian fisheries. Australia's initial focus responded to the listing of the incidental catch (or bycatch) of seabirds during oceanic longline fishing operations in 1995 through the implementation of successive threat abatement plans from 1998 addressing the process.
The threat abatement plan aims to achieve zero bycatch of seabirds, especially threatened albatrosses and petrels, in all longline fisheries. Fisheries management plans and regulations give effect to actions within the plan, for example, all longliners operating south of 25°S are required to use bycatch mitigation measures, such as branch line weighting, using a bird-scaring line, and retention of offal during line setting.
There are increasing efforts within Commonwealth-managed trawl fisheries to introduce seabird bycatch mitigation measures. These measures seek to abate the risk of injurious warp strikes and net entanglement. Preliminary research is underway concerning the risk of seabird bycatch in gillnet fisheries.
A code of conduct for Zone 1 operators in the Western Australian South Coast Purse Seine Fishery has reduced accidental entanglements of flesh-footed shearwaters (Ardenna carneipes) by approximately 80% in recent years. This code applies to a special mitigation period, corresponding to a seasonal peak in interactions with the species, in March and April when adults are provisioning newly-hatched chicks. During this period, the fishery observes a dawn closure period; extra crew are employed to implement a “tow-off procedure” to avoid nets becoming slack (which increases entanglement risks) and to more accurately record observed entanglements.
The Australian Government’s Department of Agriculture and Water Resources is developing a National Plan of Action for reducing the incidental catch of seabirds in Australian fisheries (NPOA Seabirds). This will contribute to Australia’s commitment to best-practice fisheries management through the United Nation’s Food and Agriculture Organization. The Plan will seek to identify the extent of capture of seabirds in Australian fisheries, by providing guidance on best-practice mitigation, monitoring and reporting of seabird interactions for all fishing activities. It will, in time, reduce duplication, target responses to areas identified as having the strongest need, and result in more uniform, efficient and cost effective seabird bycatch management. It will complement existing Australian Government actions in relation to the conservation and management of seabirds including the threat abatement plan for the incidental catch of seabirds during oceanic longline fishing operations. The NPOA is planned for release during 2017.
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 and Tasmanian Governments have implemented arrangements to prevent habitat destruction

affecting Australian breeding populations of threatened albatrosses and petrels. A key initiative has been the elimination of feral pest species from Macquarie Island that were extensively degrading the breeding habitat of seabirds and other animals. As well, human visitation is strictly regulated concerning visits to islands where breeding populations of threatened albatrosses and petrels are found, including to ensure biosecurity protocols are in place to prevent the introduction of new feral pest species that may cause population-level impacts.
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). A copy of the plan is located here: https://www.amsa.gov.au/forms-and-publications/MOUs/Nat-Plan/index.asp

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

National Plan to Combat Pollution of the Sea by Oil and other Noxious and Hazardous Substances

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

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

› Loss of habitat/stop-over areas through coastal development

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 and Energy.
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 a revised Plan was adopted in January 2016. The revised Wildlife Conservation Plan for Migratory Shorebirds builds 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.
Successive recovery plans for threatened albatrosses and giant petrels have been place since 2011. The

current plan seeks to ensure the long term survival and recovery of albatross and giant petrel populations breeding and foraging in Australian jurisdiction by reducing or eliminating human related threats at sea and on land. A new recovery plan is being prepared under the EPBC Act.
A new Threat Abatement Plan for the incidental catch (or by-catch) of seabirds during oceanic longline fishing operations is currently being prepared under the EPBC Act. Implementation of the provisions in the existing plan have continued to significantly reduce seabird bycatch and associated mortality in Australian longline fisheries.
The Australian Government is developing an NPOA Seabirds which is planned for release in 2017. The NPOA-Seabirds will outline actions, including in relation to improved data collection, in those fisheries where risks to vulnerable seabirds are identified, and in fisheries where it cannot satisfactorily be demonstrated that adverse impacts are not occurring.
The threat abatement plan for the impacts of marine debris on vertebrate marine life was made under the EPBC Act in 2009. Australia is revising and updating this plan, in consultation with experts. The plan acknowledges the global nature of the problem, but has a domestic focus, as required under the EPBC Act.
The draft threat abatement plan has been released and is available for public comment until 13 April 2017. Further information is available at https://www.environment.gov.au/marine/publications/threat-abatement-plan-impacts-marine-debris-vertebrate-marine-life
The Senate Environment and Communications References Committee held an inquiry into the threat of marine plastic pollution in Australia and Australian waters. Its report "Toxic tide: the threat of marine plastic" was released on 20 April 2016. The Australian Government is preparing a response to the Senate Committee report.
The Great Barrier Reef Marine Park Authority's Guidelines for Managing Visitation to Seabird Breeding Islands can be found at the following website:
http://www.gbrmpa.gov.au/__data/assets/pdf_file/0004/4765/gbrmpa_GuidelinesManagingVisitationSeabirdBreedingIslands.pdf
GBRMPA has policy that guides management of ‘take’ of protected species from the Great Barrier Reef Marine Park. This policy is currently under review as part of a wider permissions system project.
As part of the NSW Government’s flagship threatened species program, Saving our Species, site specific targeted threat abatement management actions are being undertaken to conserve the Little Tern (Sternula albifrons) for the next 100 years. Active management for the Little Tern began under this Program in 2013 and will continue as part of the five-year, $100 million investment in threatened species across the state. Management actions include minimising impacts of human disturbance (recreational activities), reducing impacts of pest species (fox and avian pest control), minimising impacts of domestic cats and dogs, and reducing impacts of tidal/wave activity or storm surges on species habitat.
Environmental watering of key waterbird habitat in NSW is carried out annually to maintain and enhance migratory shorebird habitat in iconic wetlands across five key catchments. These habitats support many migratory bird species including Eastern Great Egret, Cattle Egret, Latham's Snipe and Sharp-tailed Sandpiper. Long-term Watering Plans are being prepared for NSW Murray-Darling Catchments, which will set targets for maintaining habitats for waterbirds within key wetland systems. Maintenance of migratory bird habitat is supported through statutory water sharing plans which aim to maintain system health. This provides important water flow protection for numerous inland habitats.
Further to the NSW examples outlined above, all Australian State and Territory governments undertake a range of activities in their jurisdictions which protect migratory birds and their habitat. Further details can be found in Australia's National Report to the 2016 migratory bird bilateral consultative meetings:
http://www.environment.gov.au/biodiversity/publications/australian-national-report-consultative-meetings-oct-2016

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

Guidelines for Managing Visitation to Seabird Breeding Islands - The Great Barrier Reef Marine Park Authority's guidelines to managing visitation to seabird breeding islands

Ausralia's National Report to the 2016 migratory bird bilateral consultative meetings

Draft Threat Abatement Plan for Marine Debris

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:
› Vagrant to Australia - 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

› The species is considered a vagrant to Australia (Marchant & Higgins 1990)

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

› The species does not regularly occur in the Australian jurisdiction

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

› This species is a listed Marine species 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 in 1986, and has not been recorded since (Birdlife Australia Rarities Committee). As such, Australia does not consider itself a range state for this species.

5. Describe any future activities that are planned for this species:
› N/A

Species name: Tringa guttifer

1. Please provide published distribution reference:
› Vagrant to Australia - Higgins & Davies 1996. Handbook of Australian, New Zealand and Antarctic Birds Vol.3. Oxford University Press, Melbourne.

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

› The species is considered a vagrant to Australia with four accepted records from 2006, 2009, 2011 and 2013 (Birdlife Australia Rarities Committee)

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

› See above, the species is considered a vagrant in the Australian jurisdiction

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 to Australia. As such, Australia does not consider itself a range state for this species.

5. Describe any future activities that are planned for this species:
› N/A

Species name: Calidris canutus rufa

1. Please provide published distribution reference:
› Only Calidris canutus rogersi and C.c.canutus occur in the Australian jurisdiction (Higgins & Davies 1996). C.c.rufa has not been recorded in Australia.

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

› This sub-species does not occur in Australia.

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

☑ unclear

› See above

4. If no activities have been carried out for this species in the reporting period, what has prevented such action being taken?
› Australia does not consider itself a range state for this species.

5. Describe any future activities that are planned for this species:
› N/A

Species name: Numenius madagascariensis

1. Please provide published distribution reference:
› Higgins & Davies 1996. Handbook of Australian, New Zealand and Antarctic Birds Vol.3. Oxford Uni Press, Melbourne.

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

› Past, recent and ongoing declines of 81.4% in 3 generations (30 yrs) based on survey data and habitat loss (Fuller, pers. comm., 2014). Current global estimate is 38 000 individuals (Bamford et al 2008), however this estimate is considered out of date given the severe population declines.

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

› Widespread, but decreasing. The extent of occurrence in Australia is estimated to be 30 000 km2 (stable) and area occupied 8 500 km2 (decreasing; Garnett et al., 2011).

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).
Tracking of Far Eastern Curlew in Darwin Harbour to establish ecological requirements in the non-breeding period. Professor Stephen Garnett, Charles Darwin University
☑ Monitoring

› Australia's National Shorebird Monitoring Program - Shorebird 2020.
☑ Species protection

› All Appendix 1 species are protected under the EPBC Act. The species is now listed as Critically Endangered under the EPBC Act, effective 26 May 2015.
☑ 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:
› The species is now listed as Critically Endangered under the EPBC Act, effective 26 May 2015. The species is also about to be listed as Endangered under Queensland threatened species law.
Australia has also led the development of a Single Species Action Plan for the Far Eastern Curlew. This Plan was endorsed by Partners to the East-Asian Australasian Flyway in January 2017, and will be presented to CoP12 for adoption.
The Australian Government’s Minister for the Environment and Energy recently approved a three year project, starting immediately in 2017, on strategic planning for the Far Eastern Curlew.
The National Environment Science Program’s Threatened Species Recovery Hub will provide approximately $370,000 and Darwin Port $150,000 with in-kind support Charles Darwin University and University of Queensland.
The project summary is as follows:
The Far Eastern Curlew is the largest migratory shorebird in the world. It is listed as critically endangered in Australia with numbers rapidly declining in large part as a result of habitat loss. Recent research has highlighted the importance of high quality non-breeding habitat, but it is difficult to provide strategic guidance to developers and decision-makers because too little is known regarding the exact requirements of the bird. The threat of coastal development affecting Far Eastern Curlew populations in Northern Australia is quite high but the use by Far Eastern Curlew of artificial habitat for roosting demonstrates that some development can

be consistent with the species' needs. This project will analyse Far Eastern Curlew feeding and roosting habitat and the relationship between the two with the aim of developing strategic guidelines for Far Eastern Curlew conservation that will give certainty to Departmental policy decision makers, assessment officers, proponents, developers, planners and regulators about habitat protection and offsets.
The project will be undertaken in close cooperation with Darwin Port who currently manages a high tide roost habitat visited by Far Eastern Curlew and several other migratory bird species. Darwin Port is planning to develop and expand its operations and seeks to understand how it can achieve these objectives in a manner that does not negatively and materially impact the quality of habitats available to migratory birds visiting the Port lands. The project will assess the overall availability of suitable habitats, the impacts of developments within the port and the ways in which these impacts could be mitigated.
The project will also involve the Larrakia traditional owners of the area, working with the ranger group created to support environmental research and monitoring of Darwin Harbour, and with whom the research team have a long-standing relationship.

Species name: Calidris tenuirostris

1. Please provide published distribution reference:
› Higgins & Davies 1996. Handbook of Australian, New Zealand and Antarctic Birds Vol.3. Oxford Uni Press, Melbourne

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

› The global population was previously estimated at c.380 000 individuals (Bamford et al. 2008). The Australian population (number of mature individuals) was revised down by Garnett et al. (2011) to 290 000 (Garnett et al. 2011; BirdLife International 2015). Time series data from directly observed summer counts at a large number of sites across Australia indicate a very severe population decline of 83.1% over 25 years (7.1% per year) which for this species is equal to three generations (Studds et al., submitted).
This population estimate is likely out of date given the ongoing population declines.

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

› For the population visiting Australia, the extent of occurrence is estimated to be 35 000 km2 (stable) and the area of occupancy is 2 800 km2 and decreasing (Garnett et al. 2011).

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

› Platform Terminal Transmitter (PTT) tracking of Great Knot to reveal migration routes and staging sites. Global Flyway Network (GFN).
☑ Monitoring

› BirdLife Australia - Shorebirds 2020 program
☑ Species protection

› The species is listed as Critically Endangered on the EPBC Act, with effect from 5 May 2016.

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:
› Continued population monitoring on the non-breeding grounds (Shorebirds 2020), plus continued tracking work on migration routes and identification of important staging sites in collaboration with Chinese researchers (GFN).
This species is also about to be listed as Endangered in Queensland, under its threatened species law.

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

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 Act 1975. All cetaceans are protected within the Great Barrier Reef Marine Park, which extends to low water.

1a. If the taking of Appendix I aquatic mammals 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 aquatic mammals:
☑ By-catch
☑ Collision with fishing traffic
☑ Pollution
☑ Illegal hunting
☑ Other

› Entanglement, whale watching, noise interference.
Note that Australia considers these as threats to cetaceans, not necessarily obstacles to their migration. Further information can be found under question 3.

3. What are the major pressures to Appendix I aquatic mammals species (transcending mere obstacles to migration)?
☑ Pollution
☑ By-catch
☑ Other

› Whaling, whale watching, entanglement, vessel disturbance, climate variability and change, noise interference, habitat modification, overharvesting of prey.

3a. What actions have been taken to prevent, reduce or control factors that are endangering or are likely to further endanger acuatic mammals species beyond actions to prevent disruption to migrating behaviour?
› Australian States work closely with the Commonwealth Government to ensure ongoing conservation of migratory cetacean species.
FISHERIES INTERACTION INCLUDING BYCATCH
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 and Energy.
In 1999 all Australian fisheries ministers endorsed the National Policy on Fisheries Bycatch. The Commonwealth Policy on Fisheries Bycatch was released in 2000 for application in the Commonwealth's jurisdictional waters (generally from three nautical miles off the coastline to the limit of Australia's economic exclusion zone) building on the national framework.
The Australian Government has reviewed and is currently updating the Commonwealth Policy on Fisheries Bycatch to ensure the management of our marine environment continues to reflect best international practice, including for the minimisation of protected species interactions and mortalities. The revised policy and implementation guidelines will strengthen the existing bycatch management tools and arrangements and include mechanisms that will enhance benchmarking, performance monitoring and reporting.
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.
Most States and Territories maintain disentanglement teams and aim to rescue entangled marine fauna where operationally feasible.
The deployment of additional shark nets in NSW during a trial of additional bather protection measures has included the development of additional entanglement response teams and disentanglement gear to ensure a timely response to entanglements of large cetaceans.
COLLISION WITH FISHING TRAFFIC
The EPBC Regulations and accompanying 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.
The Australian Government is also developing a National Ship Strike Reduction Strategy including improving reporting mechanisms and identification of possible mitigation strategies.

STRANDING and ENTANGLEMENT
Under the Whale and Dolphin Protection Plan, a National Whale Stranding Action Plan has been developed to provide assistance for state and territory government agencies to respond to whale stranding and entanglement events around Australia. In addition the Plan has provided funding for research into strandings and entanglements.
The Australian Large Whale Disentanglement Response 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.
The NSW Government records cetacean stranding and vessel strike information into a long term database (Elements).
NSW has identified and prioritised all threats to threatened species as part of a comprehensive state wide threat and risk assessment of the NSW marine estate. This risk assessment will be developed into a management strategy to address high priority threats. http://www.marine.nsw.gov.au/key-initiatives/threat-and-risk-assessment
A recent paper published relating to strandings is:
Hannah B. Lloyd and Geoffrey A. Ross (2015) Long-term trends in cetacean incidents in New South Wales, Australia. Australian Zoologist: 2015, Vol. 37, No. 4, pp. 492-500.
NOISE IMPACTS
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.
EPBC Act Policy Statement 2.1 – Interaction between offshore seismic exploration and whales. Provides a practical standard to minimise the risk of acoustic injury to whales in the vicinity of seismic operations.
WHALING OPERATIONS within the region target Appendix 1 species that migrate through Australian waters:
The Australian Government opposes commercial and so-called 'scientific whaling', and supports the global moratorium on commercial whaling. Australia is undertaking concerted international efforts, including through the International Whaling Commission, to uphold the moratorium, and bring an end to so-called 'scientific' whaling.
WHALE WATCHING
The Environment Protection and Biodiversity Conservation Regulations 2000 regulates how swimmers, vessels and aircrafts can interact with cetaceans in Commonwealth waters, including minimum approach distances.

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

NSW Marine Estate Management Authority - Threat and Risk Assessment

EPBC Act Policy Statement 2.1 - Interaction between offshore seismic exploration and whales

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

› A review of how the Australian National Guidelines for Whale and Dolphin Watching 2005 are applied in Commonwealth waters is currently underway.
At the most recent International Whaling Commission meeting in October 2016, Australia worked with other likeminded pro-conservation member countries to support conservation initiatives, including resolutions that will help to protect the critically endangered Vaquita porpoise, better understand the contribution whales make to healthy marine ecosystems, and examine levels of mercury in whales. Australia continues to chair the Commission's Working Group on Conservation Management Plans initiative. Significantly, the Commission endorsed the first Conservation Management Plan for a small cetacean - the Franciscana dolphin.
Australia also spearheaded key procedural and governance reforms including sponsoring a resolution that will improve the scrutiny of special permit whaling programs, and a resolution that establishes an independent review of the Commission's institutional and governance arrangements - the first in its 70 year history. Australia provided a voluntary contribution of $AUD200,000 to support the review.
At the meeting, Australia announced a voluntary contribution of $AUD1.5 million to the Commission's Southern Ocean Research Partnership. The Partnership supports non-lethal whale research, and continues to demonstrate that you do not need to kill whales in order to study them.
Dr Daniele Cagnazzi (Southern Cross University, http://scu.edu.au/marine-ecology/index.php/33) and others are progressing projects that contribute towards some of the priorities contained within the Inshore Dolphin Research Framework produced in 2014, including an investigation into the genetic population structure of Australian Snubfin and Indo-Pacific humpback dolphins in Queensland and Australia waters. The Great Barrier Reef Marine Park Authority provides some support to elements of the project occurring in the Great Barrier Reef.
The Great Barrier Reef Marine Park Authority is delivering the Great Barrier Reef Marine Debris Clean-up Project, funded over two years, until 30 June 2017. The project aims to minimise the source and occurrence of marine debris in the Great Barrier Reef World Heritage Area through coordinated on-ground cleanup activities and delivery of a comprehensive public education campaign.
Community action is a major factor in abating the immediate threats posed to wildlife by marine debris. 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 to reduce the flow of problem marine debris items at their source.
In Western Australia, a research program was initiated by the Department of Parks and Wildlife in 2016 to evaluate the swim-with humpback whale tourism trial and included assessing impacts to the whales, risks to people (in partnership with Curtin University and Murdoch University) and visitor satisfaction (in partnership with Murdoch University) in order to inform best practice management.
Research on critical habitat for humpback whales and monitoring techniques is being undertaken in the Kimberley by AIMS through the Western Australian Marine Science Institution and in Ningaloo Region by University of Tasmania.
A research program on critical habitat for inshore dolphin species in the Pilbara has been initiated by the Department of Parks and Wildlife, funded through a Wheatstone Offset program. The research includes aerial surveys to identify high density dolphin areas and assess relative abundance and vessel surveys for finer scale population assessment.
Research on tropical dolphin species has been undertaken by Murdoch University and Curtin University through population genetics, distribution and abundance and developing suitable long term monitoring techniques, including trialling Passive Acoustic Monitoring (PAM).
In the MSC certified Western Rock Lobster Fishery, the humpback whale is the predominant species that interacts with the WCRLF, during both its northward migration from May to August and then during its subsequent southward migration from September to November. Owing to the fishery's historical closed season (July-November), there was a limited period for interaction. There has been a rise in the number of entanglements in commercial rock lobster gear in recent seasons. This is likely due to the combination of an increasing population of humpback whales, and the transition of the WCRLF to a quota fishery with year-round fishing.
Entanglements are reported by industry and other water users to the Western Australian Department of Parks and Wildlife (DPaW) whose specialist teams attempt to disentangle the animal, with a high success rate. The western rock lobster fishing industry has developed a code of practice to minimise the interaction with whales in conjunction with DPaW and the Department of Fisheries. The Minister for Fisheries initiated a ministerial taskforce which included members of the Department, Minister's office, Industry (WRLC, WAFIC), a commercial fisher and representatives of the Department of the Environment and Energy. Its main function has been to identify research projects and provide advice on possible mitigation measures to reduce whale entanglements.
An outcome of this process has been the development of two Fisheries Research and Development Council research projects, which in combination aim to assess the issue of whale entanglements both through the trial of gear modifications and by improving the collection of spatial and temporal data on the whale migration along the West Australian coast. The outputs of these projects have and will continue to feed into future management arrangements to reduce whale entanglements.
For the 2014 whale migration season fishers were required to use modified gear on all fishing gear with ropes greater than 27.4m (15 fathoms). The effectiveness of these modifications is still to be assessed but a significant decline in whale entanglements with rock lobster gear was recorded in 2014, declining from 18 in 2013 to six in 2014. Management measures remained in place for the 2015 whale migration season.

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: Balaenoptera borealis

1. Please provide published distribution reference:
› Burbidge A, Harrison P and Woinarski J (2014) The action plan for Australian Mammals 2012.
Conservation Advice - Balaenoptera borealis - sei whale (2015)
(http://www.environment.gov.au/biodiversity/threatened/species/pubs/34-conservation-advice-01102015.pdf)

2a. Summarise information on population size (if known):
☑ not known

› The total abundance and population trends of sei whales in Australian waters is unknown.

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 avilable 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.
South-east marine region profile 2015 http://www.environment.gov.au/system/files/resources/7a110303-f9c7-44e4-b337-00cb2e4b9fbf/files/south-east-marine-region-profile.pdf
The recovery plan for this species ceased in 2015 and was replaced with approved Conservation Advice (http://www.environment.gov.au/biodiversity/threatened/species/pubs/34-conservation-advice-01102015.pdf)
The action plan for Australian mammals 2012 (2014).
☑ Species restoration
☑ 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 musculus

1. Please provide published distribution reference:
› The 2005 recovery plan for this species ceased to be in effect in 2015 and was replaced with the Conservation Management Plan for the Blue Whale 2015-2025
http://www.environment.gov.au/system/files/resources/9c058c02-afd1-4e5d-abff-11cac2ebc486/files/blue-whale-conservation-management-plan.pdf
The Action Plan for Australian Marine mammals 2012 (2014)

National Conservation Values Atlas (http://www.environment.gov.au/webgis-framework/apps/ncva/ncva.jsf)

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

› Pygmy blue whale: 1999/2000 to 2004/2005 season in the Perth Canyon - between 532 and 1,754 individuals.
Antarctic blue whale: The most recent abundance estimate comes from the circumpolar survey that took place over 1992/1993 – 2003/2004 is 2,280 (95% interval 1,160–4,500) with an average estimated increase of 8.2% per year (95% interval 1.6–14.8

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

› Pygmy blue whales feeding off Australia use the west coast of Australia as part of their migratory route to and from breeding destinations. The pygmy blue whales tend to pass along the shelf edge at depths between 500m to 1000m during their migration. Assuming these movements are representative of the animals that feed off the western Australian area as a whole, pygmy blue whales migrate north from the Perth Canyon / Naturaliste Plateau region in March / April reaching Indonesia by June where they remain until at least September. Southern migration from Indonesia may occur from September and finish by December in the subtropical frontal zone after which the animals may make their way slowly northwards towards the Perth Canyon by March / April.

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

› Miller et al (2015) Validating the reliability of passive acoustic localisation: a novel method for encountering rare and remote Antarctic blue whales
Peel et al (2014) A Simulation Study of Acoustic-Assisted Tracking of Whales for Mark-Recapture Surveys
Bravington et al (2014) Antarctic Blue Whale surveys: augmenting via genetics for close-kin and ordinal age
☑ Identification and establishment of protected areas

› The Bonney Upwelling off the Victorian and South Australian coastlines has been identified in the Blue Whale Conservation Management 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)
☑ 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 CMS 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

› The Conservation Management Plan for the Blue Whale states that the long-term recovery objective for blue whales is to minimise anthropogenic threats to allow for their conservation status to improve so that they can be removed from the EPBC Act threatened species list.
☑ 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 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)

2a. Summarise information on population size (if known):
☑ not known

› The total abundance and population trends of fin whales in Australian waters is unknown.

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

› The full extent of their distribution in Australian waters is uncertain, but they occur within Commonwealth waters and have been recorded in most State waters and from Australian Antarctic Territory waters.

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 avilable 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
☑ 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:
› Woinarski J, Burbridge B and Harrison P (2014) The action plan for Australian Mammals 2012.
Conservation Management Plan for the Southern Right Whale 2011-2021.

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 Austalian 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. There are occasional occurrences further north, with the extremities of range recorded as Hervey Bay and Exmouth.

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

› Monitoring population dynamics of ‘Western’ right whales off southern Australia - John Bannister
☑ 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).
The Australasian Right Whale Photo-identification Catalogue provide valuable information about the abundance, status, movements, productivity and longevity of this species.
(https://data.marinemammals.gov.au/arwpic/)
☑ Education / awareness rising

› The Australian Government has comprehensive information avilable 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

› The Conservation Management Plan for the Southern Right Whale states that the long-term recovery objective are to minimise anthropogenic threats to allow the conservation status of the southern right whale to improve so that it can be removed from the threatened species list under the EPBC Act. The interim recovery objectives include: (1) Demonstrate that the number of southern right whales occurring off south-west Australia (nominally south-west Australian population) is increasing at or near the maximum biological rate; (2) Demonstrate that the number of southern right whales occurring off south-east Australia (nominally south-east Australian population) is showing signs of increase.
☑ 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:
› A southern right whale workshop will be held in March 2017 to investigate whether or not there are two Australian southern right whale populations, how to survey animals in SE Australian waters, as well as discussing the Australian Right Whale Photo Identification Catalogue.

Species name: Megaptera novaeangliae

1. Please provide published distribution reference:
› Woinarski J, Burbridge B and Harrison P (2014) The action plan for Australian Mammals 2012.
Conservation Advice - Humpback Whale (2015)

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

› Peel D, Kelly N, Smith, J, Childerhouse S, Moore TJ, Redfern J (2015) Quantitative assessment of the risk of ship strike to humpback whales in the Great Barrier Reef.
☑ 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.
☑ Education / awareness rising

› The Australian Government has comprehensive information avilable 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

› This species has a current Conservation Advice in place that was approved in 2015: http://www.environment.gov.au/biodiversity/threatened/species/pubs/38-conservation-advice-10102015.pdf
☑ 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: Orcaella brevirostris

1. Please provide published distribution reference:
› Recent research has shown that the Australia/New Guinea population of Irrawaddy Dolphin differs from the Asian populations genetically, morphologically and in their habitat preferences (Beasley et al. 2002) prompting a new species, the Australian Snubfin Dolphin, Orcaella heinsohn.

2a. Summarise information on population size (if known):
☑ not known

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

› Based on the available data the distribution of Australian Snubfin Dolphins covers the coastal waters of Queensland, Northern Territory and north-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

› During the reporting period a multi-year survey monitoring variation in populations of coastal dolphins was undertaken in the Northern Territory. The aim of the project was to assess the regional conservation status of all species of coastal dolphins including Australian humpback dolphin (Sousa sahulensis), Australian snubfin dolphin (Orcaella heinsohni) and bottlenose dolphin (Tursiops sp.).
☑ Monitoring
☑ Species protection

› This species is a listed cetacean and migratory species 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?
› 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: Physeter macrocephalus

1. Please provide published distribution reference:
› Woinarski J, Burbridge B and Harrison P (2014) The action plan for Australian Mammals 2012.

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

☑ not known

› There is no current accepted abundance estimate for sperm whales in Australian waters.

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 avilable 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.

Miscellaneous information or comments on Appendix I marine mammals in general:
› The Australian Marine Mammal Centre (AMMC) was established as the first national research centre focused on understanding, protecting and conserving the whales, dolphins, seals and dugongs in our region.
The Centre coordinates Australia’s marine mammal research expertise to provide scientific research and advice to underpin Australia’s marine mammal conservation and policy initiatives. The Australian Marine Mammal Centre supports an extensive research community throughout Australia, representing over 20 institutions.
The Australian Marine Mammal Centre hosts the National Marine Mammal Data Portal for the collation of national sightings, strandings and entanglement data. The Marine Mammal Centre is also home to the

Secretariat of the Southern Ocean Research Partnership, gathering information about Southern Ocean whale sightings and running the Antarctic blue whale project.

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)?
☑ Yes

If other legislation is relevant, please provide details:
› The protection afforded by the national implementing legislation is complemented by the Great Barrier Reef Marine Park Act 1975 and supporting legislative instruments for all six marine turtle species within the Great Barrier Reef Marine Park.

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):
› The Native Title Act 1993 identifies activities such as hunting and fishing as potential native title rights and interests. Section 211 of the Native Title Act 1993 generally provides that a law which prohibits or restricts persons from carrying out a particular class of activity, other than in accordance with a licence or permit, does not prohibit or restrict native title holders from carrying out that activity for the purpose of personal, domestic or non-commercial communal needs and in exercise of native title rights and interests. This protects the pre-existing legal rights of native title holders.
Many other Commonwealth and state/territory Acts also have specific clauses that identify the right and authority for native title holders to hunt as part of cultural practice.

2. Identify any obstacles to migration that exist in relation to Appendix I reptiles species:
☑ By-catch
☑ Pollution
☑ Other

› Marine debris including ghost nets.
Climate change and variability.
International take (within and outside of Australia’s jurisdiction).
Dredging and trawling - destruction of habitat.

2a. What actions are being undertaken to overcome these obstacles?
› The Australian Government and the relevant State and Territory governments have been and are working on a number of actions in response to marine turtle issues, including (but not limited to):
1. The Dugong and Turtle Protection Plan
2. Development of the draft Threat Abatement Plan for the impacts of marine debris on vertebrate marine life
3. Development of the draft Recovery Plan for Marine Turtles in Australia

2b. Please report on the progress / success of the actions taken.
› 1. The Dugong and Turtle Protection Plan has been implemented since 2014 and includes completed activities such as marine debris clean up, and tripling of penalties for poaching and illegal trade of turtle and dugong meat, and in progress activities such as the development of the draft Recovery Plan for Marine Turtles in Australia and the Specialised Indigenous Ranger Programme which includes a turtle management component.
2. The draft threat abatement plan for the impacts of marine debris on vertebrate marine species provides a national strategy to abate the threat posed by marine debris and guide investment and effort by the Australian Government, jurisdictions, research organisations and non-government organisations in addressing the impacts of marine debris on native species. It is currently out for public comment until 13 April 2017.
3. The draft Recovery Plan for Marine Turtles in Australia is a national recovery plan which provides actions of management to address all threats which were assessed during the development of the plan as ‘high’ or ‘very high’. These threats in priority order include: climate change and variability, marine debris, chemical and terrestrial discharge, international take, terrestrial predation, fisheries bycatch, light pollution, habitat modification (including dredging and trawling) and indigenous take. This plan is expected to be approved and released in mid-2017.
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.
Queensland fisheries recently made a minor change to turtle excluder device requirements for commercial trawl fishers, effective from March 1 2017, to reflect US research findings around flap overlap extents and effectiveness.
Bycatch Reduction Devices (BRDs) are mandatory in the WA prawn trawl fisheries that operate in the Gascoyne and North Coast Bioregions, where marine turtles are generally distributed. In 2014, 42 unidentified turtles, 15 green turtles (Chelonia mydas), 11 loggerhead turtles (Caretta caretta), 1 flat-back turtle (Natator depressus) and 1 hawksbill turtle (Eretmochelys imbricata) were reported to have been released alive from WA commercial fisheries. In addition, one unidentified turtle was also reported to have been released from WA commercial fisheries in an unknown condition.
The Northern Prawn Fishery (NPF) has been using BRDs in trawl nets since 2000 which reduced turtle interactions and fatalities significantly. Incidental captures of marine turtles are required to be reported in logbooks by fishers. NPF Industry Pty Ltd is co-investigator on the CSIRO project 'Monitoring interactions with bycatch species using crew-member observer data collected in the Northern Prawn Fishery'. NPFI manages the Crew Member Observer (CMO) program which monitors interactions with marine turtles and other CMS listed species. Data collected through this program is used in conjunction with AFMA scientific observer data and CSIRO prawn monitoring survey data for the sustainability assessment of bycatch species. This assessment is done every three years and analyses catch trends of these, and other, protected species.
For the 2014 prawn fishing season in the MSC certified Shark Bay Prawn Trawl Fishery, 27 turtles were recorded as caught in nets in the prawn fishery with all being recorded as returned to the sea alive.
In the MSC certified Exmouth Gulf Prawn Fishery, BRDs are mandatory, with all boats required by a condition on the managed fishery licences, to fish with a 'grid' and a secondary fish escape device (FED) fitted in each net. This fishery successfully gained certification from the US Department of State in 2008 and was re-certified in 2012 and reviewed in 2014. This certification allows licensees to export product to the US market. While listed species including dugongs, turtles and sea snakes, occur in the general area, only sea snakes and occasionally turtles are encountered in the trawl catches. Both species are typically returned to the sea alive. Grids are now compulsory, which has largely eliminated the capture of any turtles or other large animals. In addition, secondary bycatch reduction devices (square mesh panels) were implemented in all nets in 2005. There has been a focus on correct reporting of interactions with listed species by fishers. In 2014 20 turtles (all unidentified) were reported as captured in nets and returned to the sea alive. Three sawfish were reported as captured: one returned alive, two dead.
In the MSC certified Western Rock Lobster Fishery, turtle deaths as a direct result of interaction with the lobster fishery are very rare. Given the significant reductions in effort and hence pot ropes in the water since this assessment was completed, the current risk is probably now even lower. During the 2014 fishing season there was one interaction with a turtle and no deaths reported.
The performance measure for the fishery is that there is no increase in interactions with turtles. In 2014 one leatherback turtle were reported to have been entangled in lobster fishing gear. This incident rate is below the historical range of between two and five entanglements per season over the preceding five seasons.

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

› Light pollution

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?
› Indigenous harvest of eggs and turtle meat occurs across northern Australia and is managed by communities themselves. A range of initiatives have been undertaken to assist Indigenous communities manage their land and sea country including marine turtles. These initiatives include management of a range of threats including collection and predation of eggs.
- Traditional Use of Marine Resources Agreements (TUMRAs) are developed by Traditional Owners and accredited by the Great Barrier Reef Marine Park Authority. The aim of TUMRAs is to encourage a cooperative approach to the management of the Marine Park that benefits Traditional Owners and the government, achieves sustainable levels of harvesting that will benefit species conservation generally, and is consistent and transparent. Each TUMRA has set harvest limits that have been assessed for their sustainability against the latest science and monitoring information. A compliance management plan and traditional permits system then underpins each TUMRA. Currently one quarter of the Great Barrier Reef Marine Park is covered by TUMRAs. Similarly, the Torres Strait Regional Authority supports the development of Torres Strait Islander community based management plans, which serve a similar purpose.
- The Specialised Indigenous Ranger Program provides compliance training to Indigenous Rangers which

directly contributes to the Dugong and Turtle Protection Plan. It supports better outcomes for the wider community through strengthened environmental management (including traditional hunting systems), species protection and connects local Indigenous people to country. Funding has enabled the training of 26 participants in Certificate IV in Government Investigations (Regulatory Compliance). Rangers who complete the program are eligible and supported to apply for consideration to be appointed as authorised officers (Inspectors) under Marine Park legislation – and help protect the Reef from illegal activities.
- 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.
A number of the above mentioned programs include predation management. In addition, Australia is currently implementing the Nest to Ocean Turtle Protection Program which aims to develop collaborative partnerships across governments and the community to enhance the incubation success of turtle eggs in Queensland through active predator control and other nest protection measures. The types of projects the program supports includes control options that use a combination of ground and aerial shooting, ground and aerial baiting and installation of nest protection devices at strategic locations. The focus of all operations is on critical egg laying and hatching times. It is important to note that with currently available technology, it is not possible to achieve eradication except on islands and in some highly managed local areas. Consequently, management is aimed at sustainable control of the damage caused by predators.
Australia also has a number of Threat Abatement Plans in place including: Predation by European Red Fox; Reduction in Impacts of Tramp Ants on Biodiversity in Australia and its Territories and Predation, habitat degradation, competition and disease transmission by feral pigs.
Coastal infrastructure such as ports and marinas, aquaculture facilities, marine energy production, reclamation of swamp land, the presence of jetties or armouring of beaches can reduce the availability of important marine turtle habitat. Under Australian national environmental law, any action that is likely to have a significant impact on a nationally threatened or migratory species (such as marine turtles) needs to be assessed to determine if approval is required and if so what conditions are required to ensure minimal impacts to those species and important habitats. This includes any impacts to important nesting beaches such as direct removal of habitat or light pollution.
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.
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 to develop and implement 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.
Within the Great Barrier Reef Marine Park, the Great Barrier Reef Marine Park Authority:
- Sets specific targets for marine turtle nesting, inter-nesting and foraging habitat protection as part of implementing the Representative Areas Program for the Great Barrier Reef Marine Park Zoning Plan 2003.
- Works with the Queensland Government to reduce the risk of shark control nets to marine turtles and other bycatch species. As of early 2017 all nets had been removed from the Great Barrier Reef Marine Park. Baited drumlines are still in use.
- Implements targeted campaigns to raise public awareness about marine turtle conservation issues.
- Supports research into marine turtle conservation issues including monitoring in the Great Barrier Reef.
In addition to the above, Western Australia imposes conditions on developers to ensure adequate monitoring and control of pressures. These are also developed to include additional environmental offsets resulting in either net benefit or additional understanding.

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

› All of the above mentioned programs are currently active.
Since the commencement of the Nest to Ocean Turtle Protection Program, aggregate data collected shows that 93% of nests monitored in treatment areas were not predated and produced hatchlings. The low level of predation (7%) demonstrates the effectiveness of targeted predator control and exclusion activities at turtle rookeries in mitigating the threat of nest predation.

3c. Describe any factors that may limit action being taken in this regard:
› Due to the extensive range of marine turtles across northern Australia, they often occur in remote and inaccessible areas.

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: 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
It is anticipated that an updated recovery plan with distribution maps will be available prior to COP12.

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

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

› There are two genetically distinct stocks of loggerhead turtles nesting in Australia, one in Queensland (known as the south-west Pacific stock) and one in Western Australia. Loggerhead turtles forage in all coastal states and the Northern Territory, but are uncommon in South Australia, Victoria and 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

› 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.
Research is ongoing throughout their range.
☑ Identification and establishment of protected areas

› Species protection also occurs 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

› In Western Australia, turtle monitoring programs are ongoing at Dirk Hartog and Murion Islands, Ningaloo Marine Park and at Ashmore Reef National Nature Reserve. The main areas for loggerhead turtle monitoring are Dirk Hartog Island and Gnaraloo.
Surveys, tagging, beach track counts, 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. This also includes monitoring of nesting green, hawksbill, loggerhead and flatback turtles.
A state tagging database has been developed and 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 Parks and Wildlife.
Long term monitoring is also ongoing at Mon Repos in Queensland (30+ years).
☑ Education/awareness rising

› The Indigenous Ranger Programs mentioned above include providing education, public awareness and training in marine turtle biology, behaviour and management to many indigenous groups within the Great Barrier Reef.
☑ Species protection

› The species is afforded protection under the EPBC Act.
The Nest to Ocean Program as mentioned above has resulted in a number of projects being undertaken in Queensland to manage egg predation by exotic animals, in particular, feral pigs.
☑ Control hunting / poaching

› On 23 February 2015, the Environment Legislation Amendment Act 2015 was passed by the Australian Parliament which increased protection for turtles and dugong by tripling penalties for killing or injuring these species.
A number of traditional use of marine resource agreements (described above) have been signed during this period.
☑ Species restoration

› Recovery of the species is addressed in the new Recovery Plan for Marine Turtles in Australia (2017) which is expected to be available mid 2017. 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 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 Recovery Plan for Marine Turtles in Australia 2017.

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
It is anticipated that an updated recovery plan with distribution maps will be available prior to COP12.

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

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

› Green turtles nesting in Australia are distributed across nine genetically distinct stocks including newly identified Cobourg and the Cocos Keeling stocks. The remaining stocks are found at the North West Shelf, Ashmore Reef, Scott Reef-Browse Island, Gulf of Carpentaria, northern Great Barrier Reef and Torres Strait, Coral Sea and southern Great Barrier Reef. In addition, there are green turtles that feed in Australia that are part of stocks that breed in other countries (e.g. Indonesia, Papua New Guinea and New Caledonia). Green turtles are predominantly found in Australian waters off the Northern Territory, Queensland, and Western Australian coastlines with more limited numbers in New South Wales, Victoria and South 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

› 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 Girringun, 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.
There is concern that reproductive output at Raine Island has decreased with low nesting success and hatchling production and large numbers of adult turtles dying on the island as a result of heat exhaustion and cliff falls. The cause of the low hatchling production is not fully understood, although changes to the landscape of the island and changes in extreme weather causing tidal inundation, and ocean acidification due to climate change may be affecting the availability of suitable nesting habitat. The Queensland Government has initiated the Raine Island Recovery Project (2015-2020) aimed at addressing these issues.
☑ Identification and establishment of protected areas

› Species protection also occurs 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

› Long-term monitoring of marine turtle nesting and foraging populations occurs in the Great Barrier Reef Marine Park and adjacent Queensland waters. In particular there is extensive monitoring at Raine Island in the Great Barrier Reef as mentioned above.
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. This also includes monitoring of nesting green, hawksbill, loggerhead and flatback turtles. The main census for green turtles takes place at Ningaloo.
A state tagging database has been developed and 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.
☑ Education/awareness rising

› The Indigenous Ranger Programs mentioned above includes providing education, public awareness and training in marine turtle biology, behaviour and management to many indigenous groups within the Great Barrier Reef.
☑ Species protection

› The species is afforded protection under the EPBC Act.
The Nest to Ocean Program as mentioned above has resulted in a number of projects being undertaken in Queensland to manage egg predation by exotic animals, in particular, feral pigs.
☑ 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 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. A number of traditional use of marine resource agreements (described above) have been signed during this period.
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.
On 23 February 2015, the Environment Legislation Amendment Act 2015 was passed by the Australian Parliament which increase protection for turtles and dugong by tripling penalties for killing or injuring these species.
(end)
☑ Species restoration

› Recovery of the species is addressed in the new Recovery Plan for Marine Turtles in Australia (2017) which is expected to be available mid 2017. This plan sets out recovery objectives and the actions required to achieve

those objectives.
☑ 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.
☑ Habitat restoration
☑ 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 Recovery Plan for Marine Turtles in Australia 2017.

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
It is anticipated that an updated recovery plan with distribution maps will be available prior to COP12.

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

2b. Summarise information on distribution (if known):
☑ not known

› There are potentially three leatherback turtle genetic stocks in the Indo-Pacific. Genetic linkages are yet to be determined between areas where leatherback turtles are known to nest/occur, and those found in Australian waters.

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 is ongoing throughout their range.
☑ Identification and establishment of protected areas

› Species protection also occurs 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

› Aerial surveys are undertaken on ad hoc basis in the Northern Territory.
☑ Education/awareness rising

› The Indigenous Ranger Programs mentioned above includes providing education, public awareness and training in marine turtle biology, behaviour and management to many indigenous groups within the Great Barrier Reef.
☑ Species protection

› The species is afforded protection through the EPBC Act.
The Nest to Ocean Program as mentioned above has resulted in a number of projects being undertaken in Queensland to manage egg predation by exotic animals, in particular, feral pigs.

☑ Control hunting / poaching

› On 23 February 2015, the Environment Legislation Amendment Act 2015 was passed by the Australian Parliament which increase protection for turtles and dugong by tripling penalties for killing or injuring these species.
A number of traditional use of marine resource agreements (described above) have been signed during this period.
☑ Species restoration

› Recovery of the species is addressed in the new Recovery Plan for Marine Turtles in Australia (2017) which is expected to be available mid 2017. 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, as guided by the Recovery Plan for Marine Turtles in Australia 2017.

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
It is anticipated that an updated recovery plan with distribution maps will be available prior to COP12.

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

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

› There are three hawksbill turtle stocks, one in the northern Great Barrier Reef and Torres Strait and one in Arnhem Land, which is differentiated by temporal variation in breeding. A third is found on the north-west shelf of Western Australia. Nesting hawksbill turtles from the northern Great Barrier Reef migrate to the Northern Territory, the southern coast of West Papua (formerly Irian Jaya) and Papua New Guinea. Hawksbill turtles that forage on the Great Barrier Reef migrate to neighbouring countries including Papua New Guinea, Vanuatu, and the Solomon Islands. It is not known from which stock hawksbill turtles foraging in New South Wales originate. The genetic relatedness of hawksbill turtles nesting in the Kimberley to hawksbill turtles nesting elsewhere in Western Australia is currently unknown.

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 is ongoing throughout their range.
☑ Identification and establishment of protected areas

› Species protection also occurs 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

› 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. This also includes monitoring of nesting green, hawksbill, loggerhead and flatback turtles. The main census for hawksbill turtles takes place at Rosemary Island.
A state tagging database has been developed and 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 Parks and Wildlife.
The only monitoring undertaken in Queensland for hawksbill turtles is at Milman Island, during 1991-2010. This data indicates a steady decline in the nesting turtles in this area, however it is not known if this is representative of the entire Queensland stock. Further surveys are currently being undertaken at this site.
☑ Education/awareness rising

› The Indigenous Ranger Programs mentioned above includes providing education, public awareness and training in marine turtle biology, behaviour and management to many indigenous groups within the Great Barrier Reef.
☑ Species protection

› The species is afforded protection through the EPBC Act.
The Nest to Ocean Program as mentioned above has resulted in a number of projects being undertaken in Queensland to manage egg predation by exotic animals, in particular, feral pigs.
☑ Control hunting / poaching

› On 23 February 2015, the Environment Legislation Amendment Act 2015 was passed by the Australian Parliament which increase protection for turtles and dugong by tripling penalties for killing or injuring these species.
A number of traditional use of marine resource agreements (described above) have been signed during this period.
☑ Species restoration

› Recovery of the species is addressed in the revised Recovery Plan for Marine Turtles in Australia (2017) which is expected to be available mid 2017. 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 and Pulu Keeling National Park.
☑ Habitat restoration
☑ 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, as guided by the Recovery Plan for Marine Turtles in Australia 2017.

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
It is anticipated that an updated recovery plan with distribution maps will be available prior to COP12.

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

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

› There are two olive ridley turtle stocks in Australia, one that nests in the Northern Territory and one that nests on western Cape York near Weipa. Low density nesting has also been described on the Kimberley coast, but genetic relatedness is unknown. There is limited tag recovery data for olive ridley turtles, but satellite tracking data indicates that they appear to remain on the Australian continental shelf into waters 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

› See Australia's National Report to the Indian Ocean and South-east Asia Turtle MoU at: http://www.ioseaturtles.org/
Research is ongoing throughout their range.
☑ Identification and establishment of protected areas

› Species protection also occurs 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).
☑ Monitoring

› Indigenous ranger groups in the Northern Territory are monitoring nesting in their local areas as part of land and sea management activities.
☑ Education/awareness rising

› The Indigenous Ranger Programs mentioned above includes providing education, public awareness and training in marine turtle biology, behaviour and management to many indigenous groups within the Great Barrier Reef.
☑ Species protection

› The species is afforded protection through the EPBC Act.
The Nest to Ocean Program as mentioned above has resulted in a number of projects being undertaken in Queensland to manage egg predation by exotic animals, in particular, feral pigs.
☑ Control hunting / poaching

› On 23 February 2015, the Environment Legislation Amendment Act 2015 was passed by the Australian Parliament which increase protection for turtles and dugong by tripling penalties for killing or injuring these species.
A number of traditional use of marine resource agreements (described above) has been signed during this period.
☑ Species restoration

› Recovery of the species is addressed in the revised Recovery Plan for Marine Turtles in Australia (2017) which is expected to be available mid 2017. This plan sets out recovery objectives and the actions required to achieve those objectives.
☑ Habitat protection
☑ 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, as guided by the Recovery Plan for Marine Turtles in Australia 2017.

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

If other legislation is relevant, please provide details:
› Any species listed as Migratory under the Environment Protection and Biodiversity Conservation Act 1999 is also afforded total protection from take or injury under the Great Barrier Reef Marine Park Act 1975 within the Great Barrier Reef Marine Park. All CMS Appendix I species are listed as Migratory in Australia.

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):
› In October 2016 the NSW Government applied for a national interest exemption under section 158 of the EPBC Act to implement their North Coast Shark Meshing Trial, following three shark attacks in the region over approximately a six-week period in September-October 2016. The exemption was granted by the Minister for the Environment and Energy on 16 November 2016 and is effective until 17 November 2017. It is limited to the deployment of up to ten nets at coastal beaches and other tidal waters in the Ballina Shire and Richmond Valley Local Government Areas for a total of six months within the exemption period. In the first three months of the trial (8 December 2016 to 7 March 2017), the mesh nets have caught two White Sharks (1 released alive, 1 dead). The nets have also caught a number of mobula/manta rays (6 released alive and 9 dead). On 20 December 2016, the Secretariat to the Convention on the Conservation of Migratory Species of Wild Animals was informed of the national interest exemption, in regard to potential impacts on the white shark.

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

☑ Other

› 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 the implementation of a Threat Abatement Plan for the Impacts of Marine Debris on Vertebrate Marine Life, which was released in 2009. (Available at: https://www.environment.gov.au/marine/publications/threat-abatement-plan-impacts-marine-debris-vertebrate-marine-life). This Plan is currently under review and a revised Plan is available for public comment until 13 April 2017.

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

http://
Draft Threat Abatement Plan for Marine Debris 2017 - Available for public comment until 13 April 2017

2b. Please report on the progress / success of the actions taken.
› Please see section above in relation to aquatic mammals.

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

› 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 and Energy.
The Department of the Environment and Energy 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.

Commercial fishers in Western Australia are required to report interactions with protected species in statutory returns, which are reported in the Department of Fisheries annual State of the Fisheries reports. In 2014, WA-managed commercial fishers reported catching: 40 green sawfish (29 released alive), 25 narrow sawfish (13 released alive), 18 unidentified sawfish and 12 white sharks (9 released alive).
In 2014, the WA demersal gillnet and demersal longline fisheries reported an annual catch of ca. 3 tonnes (live weight) of shortfin mako shark (Isurus oxyrinchus), about one tonne less than the annual mean between 2006 and 2014.

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: 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.
Recovery Plan for the White Shark 2013

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

Recovery Plan for the White Shark 2013

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

› In 2014, CSIRO and partners through the NESP reported the first ever empirical estimate of adult white shark abundance – provisionally 750 to 1,200 adult white sharks for the eastern Australia population. Additional data and more recent refinements to these analyses suggest that the figure is more likely to be at the lower end of this scale.
There have been a number of research papers released recently regarding white sharks, which also contribute to our understanding of white shark population status in Australian waters:
Bradford R and Robbins R (2013). A rapid assessment technique to assist management of the white shark (Carcharodon carcharias) cage dive industry, South Australia. Open Fish Science Journal, vol. 6: 13 – 18.
Bruce BD (2015). White Shark population and abundance trends. pp. 44–45. In Bax NJ and Hedge P (eds.) (2015). Marine Biodiversity Hub, National Environmental Research Program, Final report 2011–2015. Report to Department of the Environment, Canberra, Australia.
Pethybridge HR, Parrish CC, Bruce BD, Young JW, and Nichols PD (2014). Lipid, Fatty Acid and Energy Density Profiles of White Sharks: Insights into the Feeding Ecology and Ecophysiology of a Complex Top Predator. PLoS ONE, vol. 9(5): e97877.
Robbins R, Bruce B and Fox A (2014). First reports of proliferative lesions in the great white shark, Carcharodon carcharias L., and bronze whaler shark, Carcharhinus brachyurus Günther. Journal of Fish Diseases, vol. 37(11): 997 – 1000.

You have attached the following documents to this answer.

Robbins_et_al_(2014)_-_proliferative_lesions_in_white_sharks.pdf
Pethybridge_et_al_(2014)_-_feeding_ecology_of_white_sharks.pdf
Bruce_(2015)_-_white_shark_population_trends.pdf
Bradford_and_Robbins_(2013)_-_rapid_assessment_of_white_shark.pdf

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.

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.
Research is being conducted to increase 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. Observer programs in Commonwealth and State and Territory fisheries are also used to gather information on interactions with protected species, and to validate reporting.
☑ Education/awareness rising

› The Department of the Environment and Energy 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

› The 2013 Recovery Plan for White Shark includes a range of research actions, including actions which will assist in understanding the population status and trends of this species to determine whether it is recovering. Australian waters include an eastern and western population of the species divided by Bass Strait. Research projects on the east and west coasts of Australia support the implementation of the recovery plan.
☑ Habitat protection
☑ Habitat restoration
☑ Other

› The Second National Plan of Action for the Conservation and Management of Sharks 2012 (Shark-plan 2) is Australia's overarching policy for guiding and coordinating engagement in shark conservation and management. The second iteration of this plan was released in July 2012 following a review of Shark-plan 1, reaffirming Australia's commitment to shark conservation. Shark-plan 2 identifies how Australia will manage and conserve sharks, and ensure that Australia meets international conservation and management obligations.
Shark-plan 2 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. Shark-plan 2 was developed with state, Northern Territory and Australian Government agencies in consultation with key non-government stakeholders. A Shark Representative Group oversees and reports on the implementation of the operational strategy for Shark-Plan 2. A copy of Shark-plan 2 can be accessed at:
http://www.agriculture.gov.au/fisheries/environment/sharks

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

SharkPlan - 2

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:
› The work towards a national population assessment for the species is ongoing.
The National Environmental Science Program's Marine Biodiversity Hub is currently undertaking a project

titled – “Towards a national population assessment for white sharks”. The project aims to combine novel genetic and electronic tagging techniques to develop an estimate of the abundance of white sharks in eastern Australian waters, so that population trends can be effectively monitored into the future. This project was extended in 2014 to include gathering information on the western population, with the intention of developing a population estimate of the west coast population, leading to a national estimate. This project is due to be completed in 2017. These tools will provide a framework for similarly assessing the population status of other shark species of conservation concern, such as sawfish species.

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 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 also occurs 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: 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 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

Species name: Anoxypristis cuspidata

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

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

› Known from Northern Australia, from the Pilbara in Western Australia around to Broad Sound in Queensland. There is no information that this is changing.

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

› Xiao Chen, Peter M. Kyne, Richard D. Pillans & Pierre Feutry (2016) Complete mitochondrial genome of the Endangered Narrow Sawfish Anoxypristis cuspidata (Rajiformes: Pristidae), Mitochondrial DNA Part A, 27:6, 4172-4173
☑ Other

› There have been a number of projects carried out for other sawfish species occurring in Australian waters and these would have indirect benefits to Narrow Sawfish.

You have attached the following documents to this answer.

Complete_mitochondrial_genome_of_the_Endangered_Narrow_Sawfish_Anoxypris....pdf

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

Species name: Pristis clavata

1. Please provide published distribution reference:
› Last, P. R., Stevens, J. D. 2009. Sharks and Rays of Australia – Second Edition. CSIRO Publishing Australia. Sawfish and River Sharks Multispecies Recovery Plan: (Pristis pristis, Pristis zijsron, Pristis clavata, Glyphis glyphis and Glyphis garricki) 2015

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

2015 Multi-species Recovery Plan for Sawfish and River Shark

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

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

› The dwarf sawfish’s Australian distribution has been considered to extend from the Pilbara coast in Western Australia across northern Australia and into the Gulf of Carpentaria. Distribution on the east coast of the Cape

York Peninsula is contested.

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 National Environmental Science Program is undertaking the project – Northern Australian hotspots for the recovery of threatened euryhaline species, the focus of which is three sawfish species which occur in Australian waters, dwarf sawfish, largetooth sawfish and green sawfish, and two river shark species (Glyphis spp.). The aim of this project is to develop a novel and modern assessment and monitoring strategy for these species to assess population status, distribution and current management effectiveness. This project is due to be completed in 2017. Key findings so far for sawfish include:
• strong population structuring of largetooth sawfish across northern Australia, however the very low CPUE of individuals aged above one year suggests that few juveniles survive above this age and limited capacity for recolonisation of depleted local populations
• only limited numbers of dwarf sawfish have been caught during the project, however, records from mid-reaches of rivers demonstrate the use of this habitat as nursery for juveniles.
A number of research papers on sawfish have been released during the reporting period. The majority of these are relevant to all sawfish species, not just Pristis clavata. Please see attached documents for further information.
☑ Monitoring

› Kyne PM and Pillans RD (2014). Protocols for surveying and tagging sawfishes and River Sharks. CSIRO Brisbane and CDU Darwin.
☑ Species protection

› All Appendix 1 species are protected under the EPBC Act.
☑ Other

› A number of projects investigating the genetics of sawfish have been undertaken to inform better decision making about its protection:
Chen X, Kyne PM, Pillans RD and Feutry P (2015). Complete mitochondrial genome of the Endangered Narrow Sawfish Anoxypristis cuspidata (Rajiformes: Pristidae). Mitochondrial DNA, 1 – 2.
Faria VV, McDavitt MT, Charvet P, Wiley TR, Simpendorfer CA and Naylor GJP (2013). Species delineation and global population structure of Critically Endangered sawfishes (Pristidae). Zoological Journal of the Linnean Society, vol. 167: 136 – 164.
Feutry P, Kyne PM, Pillans RD, Chen X, Marthick JR, Morgan DL and Grewe PM (2015). Whole mitogenome sequencing refines population structure of the Critically Endangered sawfish Pristis pristis. Marine Ecology Progress Series, vol. 533: 237 – 244.
Feutry P, Kyne PM, Grewe PM, Chen X and Liu M (2013). Whole mitogenome of the Endangered dwarf sawfish Pristis clavata (Rajiformes: Pristidae). Mitochondrial DNA, vol. 26(2): 329 – 330.
Phillips N (2012). Conservation genetics of Pristis sawfishes in Australian waters. PhD Thesis. Murdoch University. 247 pp.

You have attached the following documents to this answer.

Faria_et_al_(2013)_-_global_pop_structure_of_sawfish.pdf
Kyne_and_Pillans_(2014)_-_protocols_for_surveying_sawfish.pdf
Feutry_et_al_(2013)_-_mitogenome_of_dwarf_sawfish.pdf

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

Phillips, Nicole (2012) Conservation genetics of Pristis sawfishes in Australian waters. PhD thesis, Murdoch University.

5. Describe any future activities that are planned for this species:
› A number of the projects referred to above are ongoing.

Species name: Pristis pristis

1. Please provide published distribution reference:
› Last, P. R., Stevens, J. D. 2009. Sharks and Rays of Australia – Second Edition. CSIRO Publishing Australia. Sawfish and River Sharks Multispecies Recovery Plan: (Pristis pristis, Pristis zijsron, Pristis clavata, Glyphis glyphis and Glyphis garricki) 2015

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

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

› The majority of records for largetooth sawfish in Australia are of juvenile and sub-adult animals from rivers.

They have been recorded in numerous drainage systems in northern Australia in fresh and saline water including the Fitzroy, Durack, Robinson and Ord rivers (Western Australia), the Adelaide, Victoria, Daly, East and South Alligator, Goomadeer, Roper, McArthur, Wearyan and Robinson rivers (Northern Territory), and the Gilbert, Mitchell, Normanby, Wenlock, Mission, Embley and Leichhardt rivers (Queensland).

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

› 3. Feutry P, Kyne PM, Pillans RD, Chen X, Marthick JR, Morgan DL and Grewe PM (2015). Whole mitogenome sequencing refines population structure of the Critically Endangered sawfish Pristis pristis. Marine Ecology Progress Series, vol. 533: 237 – 244.
For other research projects, please refer to information provided for Pristis clavata.
☑ Monitoring

› Please refer to information provided for Pristis clavata.
☑ Species protection

› All Appendix 1 species are protected under the EPBC Act.
☑ Other

› Please refer to information provided for Pristis clavata.

You have attached the following documents to this answer.

Feutry_et_al_(2015)_-_mitogenome_sequencing_largetooth.pdf

5. Describe any future activities that are planned for this species:
› A number of projects are ongoing.

Species name: Pristis zijsron

1. Please provide published distribution reference:
› Last, P. R., Stevens, J. D. 2009. Sharks and Rays of Australia – Second Edition. CSIRO Publishing Australia. Sawfish and River Sharks Multispecies Recovery Plan: (Pristis pristis, Pristis zijsron, Pristis clavata, Glyphis glyphis and Glyphis garricki) 2015

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

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

› Green sawfish are currently distributed from about the Whitsundays in Queensland across northern Australian waters to Shark Bay in Western Australia. Individuals have been recorded in inshore coastal environments and estuaries but the species does not penetrate into freshwater. There are also records of green sawfish hundreds of kilometres offshore in relatively deep 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):
☑ Research

› Please refer to information provided for Pristis clavata.
☑ Monitoring

› Please refer to information provided for Pristis clavata.
☑ Species protection

› Please refer to information provided for Pristis clavata.
☑ Other

› Please refer to information provided for Pristis clavata.

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:
› A number of projects are ongoing.

Species name: Manta alfredi

1. Please provide published distribution reference:
› Peter Last, William White, Marcelo de Carvalho, Bernard Séret, Matthias Stehmann, Gavin Naylor 2016. Rays of the World. CSIRO Publishing Australia

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.

Species name: Mobula japanica

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):
☑ unclear

› Known to occur in Australian waters based on isolated records from Fraser Island (QLD) and Lake Macquarie (NSW).

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.

Species name: Mobula thurstoni

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):
☑ unclear

› Known from Australian waters from isolated sightings off Mackay and Port Douglas (Qld) and Ningaloo Reef (WA).

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.

Species name: Mobula tarapacana

1. Please provide published distribution reference:
› This species is not recognised as occurring in Australian waters, and as such, Australia does not consider itself to be a range state.

Species name: Mobula eregoodootenkee

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

› Known off Northern Australia from Brisbane, Queensland around to Port Hedland, Western Australia.
☑ 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.

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:
› Last report submitted in 2014.

You have attached the following documents to this answer.

2014_National_Report.docx

Period covered:
› 2012 - 2014

ACAP (2001)

Date of last report:
› May 2015 (Meeting of the Parties) and May 2016 (Advisory Committee)

You have attached the following documents to this answer.

2016_Australia's_report_to_AC9.pdf
2015_Australia's_report_to_MoP5.pdf

Period covered:
› 2015-2017

Pacific Islands Cetaceans MoU (2006)

Date of last report:
› 2012

Period covered:
› 2009 - 2012

Dugong MoU (2007)

Date of last report:
› 13 February 2017

You have attached the following documents to this answer.

Australia_-_CMS_Dugong_MOU_National_Report.docx

Period covered:
› 2007 - 2016

Sharks MoU (2010)

Date of last report:
› February 2016

Period covered:
› 2012 - 2016

You have attached the following documents to this answer.

CMS_Sharks_MoU_-_National_Report_-_Australia_-_MOS2.docx - Australia's report on shark conservation 2016

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 ?

☑ Yes

If Yes, what is the current state of development?
› The Department of the Environment and Energy has worked closely with the East Asian-Australasian Flyway Partnership to develop a single species action plan for the Far Eastern Curlew. The Australian government presented the draft Plan to the 9th Meeting of Partners of the EAAFP in January 2017 where it was unanimously endorsed. It is anticipated that the single species action plan will be presented to the 2nd Sessional Committee of the Scientific Council meeting for consideration and to the 12th 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 Bird Species ?
☑ No

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 instrumentâ□□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 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 ?
☑ 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 Turtle Species ?
☑ No

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 ?
☑ No

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

1. Is your country a Range State for any migratory species that has an unfavourable conservation status, but is not currently listed in Appendix II and could benefit from the conclusion of an Agreement for its conservation?

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

1a. Is your country taking any steps to propose the listing of this/these species in Appendix II?
☑ No

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 Australian Government’s Wildlife Conservation Plan for Migratory Shorebirds covers 35 species of migratory shorebird that regularly visit Australia. The plan outlines a national framework identifying research and management actions to protect migratory shorebirds in Australia. All 35 species covered by the plan are listed migratory species under the EPBC Act as they are listed on the appendices to the CMS and Australia’s migratory bird agreements with Japan, China and the Republic of Korea. The plan includes a summary of Australia’s commitments under international conventions and agreements and outlines key aspects of identifying ‘important habitat’ as described in the EPBC Act Policy Statement 3.21 – Industry Guidelines for avoiding, assessing and mitigating impacts on EPBC Act listed migratory shorebird species. The plan also outlines national actions to support migratory shorebird conservation, and will be used to ensure these activities are integrated and remain focused on the long-term survival of migratory shorebird populations and their habitat. The plan will be used to engage bilaterally with Japan, China and the Republic of Korea on how threats in the Yellow Sea region can be managed through practical action and community participation. The plan was made in consultation with all state and territory agencies, BirdLife Australia and the research community. There was widespread support for the new plan amongst key stakeholders. Actions included in the Wildlife Conservation Plan for Migratory Shorebirds will also benefit a number of shorebird species that were listed as threatened in 2015 and 2016.
The Australian Government's Threatened Species Strategy is a plan for how Australia will prioritise effort and work in partnership with the community and state and territory governments over the next five years (2015-2020). The Strategy sets out a road map and highlights how Australia’s approach of science, action and partnership can be used to achieve the long-term goal of reversing species declines and supporting species recovery.
The Action Plan 2015-16 is the first instalment of a five-year Australian Government response to the risk of species extinction. Based on principles for prioritisation outlined in the Strategy, the best available knowledge and technology, and the immediate needs of Australia’s threatened species, this plan sets out areas where the Australian Government will focus its efforts to achieve significant, positive impacts. The plan includes key action areas and targets to measure success. It is flexible and adaptive and will be monitored and reviewed annually by the Department of the Environment and Energy in consultation with delivery partners.
The Action Plan 2015-16 identifies 10 threatened mammals and 10 threatened birds for action that will grow their populations by 2020. A further two mammals and two birds have been identified for emergency intervention. The remaining eight mammals and eight birds, including Far Eastern Curlew, were announced on 22 January 2016 as part of Year 1 commitments under the Strategy. An Additional Initiative for the Christmas Island Frigatebird (Fregata andrewsi) was also announced.
The Australian Government is partnering with states and territories to deliver $6.6 million for threatened species projects that will contribute to the targets and action areas identified in the Threatened Species Strategy. The projects focus on tackling feral cats, improving habitat, creating safe havens and intervening in emergencies to protect our rare and remarkable animals and plants.
The Australian Government develops and implements recovery plans for threatened species, which may also be migratory, listed under the EPBC Act. Recovery plans set out the research and management actions necessary to stop the decline of, and support the recovery of, listed threatened species. The aim of a recovery plan is to maximise the long term survival in the wild of a threatened species. Recovery Plans relevant to migratory species include the Recovery Plan for Marine Turtles in Australia 2017. This recovery plan will be available mid 2017. The white shark is the focus of a national recovery plan which was implemented in 2013,

the "Recovery plan for the White Shark (Carcharodon carcharias)".
Further information on recovery plans can be found at:
http://environment.gov.au/biodiversity/threatened/recovery-plans

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

Recovery Plans - Information about Australian Government Recovery Plans

Australian National Report to the 18th JAMBA, 12th CAMBA and 5th ROKAMBA Consultative Meetings, October 2016 - Australia has three bilateral migratory bird agreements with Japan (JAMBA), China (CAMBA) and the Republic of Korea (ROKAMBA). These agreements provide a basis for cooperation on activities for the conservation of migratory birds that move between each country. Meetings occur between all four countries every two years. By rotation, Australia hosted the 18th JAMBA, 12th CAMBA and 5th ROKAMBA consultative meetings in October 2016. At each meeting, Australia delivers a national report which outlines activities that have contributed to the domestic implementation of the migratory bird agreements.

EPBC Act Policy Statement 3.21 - Industry guidelines for avoiding, assessing and mitigating impacts on EPBC Act listed migratory shorebird species - Thirty-seven international migratory shorebird species regularly visit Australia each year. These species are listed as migratory under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). Listed migratory species are a matter of national environmental significance.

Australia State of the Environment - SoE 2016 builds on SoE 2011, which was widely praised for breaking new ground on the scope and depth of its reporting, and for setting a baseline for future comparisons over time. SoE 2016 continues the ‘report card’ assessments of pressures, condition and trends; discussions of risk and resilience; and future projections or ‘outlooks’ that were first implemented in SoE 2011. Additional information has been provided on the methodology and evidence used to make each 2016 assessment, and the comparability of the assessments between 2016 and 2011. SoE 2016 strengthens the ability to track change over time, and the transparency and repeatability of the report-card assessments.

Australian Government's Threatened Species Strategy - The Australian Government has established a new national approach to threatened species. The Threatened Species Strategy is a plan for how we will prioritise effort and work in partnership with the community and state and territory governments over the next five years.

Wildlife Conservation Plan for Migratory Shorebirds - This Wildlife Conservation Plan for Migratory Shorebirds outlines national activities to support migratory shorebird conservation initiatives and provides a strategic framework to ensure these activities plus future research and management actions are integrated and remain focused on the long-term survival of migratory shorebird populations and their habitats. The Plan outlines the statutory elements as legislated by the EPBC Act by addressing topics relevant to the conservation of migratory shorebirds, including a summary of Australia’s commitments under international conventions and agreements, and identification of important habitat.

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

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

If Yes, please provide details
› As noted above, recovery plans set out the research and management actions necessary to stop the decline of, and support the recovery of, listed threatened species. The type of issues addressed will be dependant on the species concerned.
For example, the Recovery Plan for Marine Turtles in Australia addresses the issue of subsistence take of turtles and eggs. It was determined that there are only three turtle stocks with a high level of egg take. The plan advocates supporting Indigenous communities to undertake management of these stocks.

Economic development
☑ Yes

Land-use planning
☑ Yes

Pollution control
☑ Yes

If Yes, please provide details
› The Recovery Plan for Marine Turtles in Australia has assessed marine debris and chemical and terrestrial discharge as high risk threats. There are a number of actions listed in the plan to abate these threats.

Designation and development of protected areas
☑ Yes

Development of ecological networks
☑ Yes

Planning of power lines
☑ Yes

Planning of fences
☑ No

Planning of dams
☑ Yes

Other
☑ No

4. Results - please describe the positive outcomes of any actions taken
› Please see the links provided 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 3.3 million square kilometres (including the Great Barrier Reef Marine Park and Heard and McDonald Island Reserve). 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 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.
To ensure appropriate management of Commonwealth marine reserves into the future, the Director of National Parks has commenced the statutory process to prepare new management plans for reserves in the South-west, North-west, North and Temperate East Networks and the Coral Sea. It is expected that management plans for these reserves will be finalised in 2017. A management plan is already in place for marine reserves in the South-east.
Further information about Australia’s Commonwealth Marine Reserves can be found at:
http://www.environment.gov.au/marinereserves
Since May 2014, South Australia has added two new parks to the network of protected areas to benefit conservation of migratory species - the Adelaide Bird Sanctuary (AIBS)- Winaityinaityi Pangkara (2455 ha) and Paranki Lagoon Conservation Park (530ha).
AIBS - a total of 23 species listed under international migratory bird agreements have been recorded in the broader Sanctuary area. It is a key terminal site for the East Asian-Australasian Flyway. The AIBS has recently been declared a partner of the east Asian-Australasian Flyway partnership in recognition of the site's global significance for migratory shorebirds.
Western Australia has several new and proposed marine parks in the Kimberley region. Preliminary surveys have been undertaken in partnerships between Parks and Wildlife and several Indigenous groups across this region. More detailed surveys have occurred on Eighty Mile Beach since 2012.
In Western Australia, a number of current marine park management plans specifically reference migratory species. For example, the Lalang-garram Camden Sound Marine Park management plan 73 2013-2023 identifies humpback whales as a species of special conservation interest and includes critical habitat for calving as a key ecological value. Additional species covered under this plan include dugongs, dolphins and

turtles.
Lalang-garram/Horizontal Falls and North Lalang-garram marine parks Joint Management Plan 2016 Management Plan 88 identifies humpback whales, dugongs and snubfin dolphins.
Yawuru Nagulagun Roebuck Bay Marine Park Joint Management plan 2016 Management Plan 86 identifies snubfin dolphins (Orcaella heinsohni) and dugongs as key ecological values.
Management Plan for the Ningaloo Marine Park and Muiron Islands Marine Management Area 2005-2015 Management Plan 52 identifies whale sharks, manta rays, dugongs and cetaceans (20 species).
North Kimberley Marine Park Joint Management Plan 2016 Uunguu, Balanggarra, Miriuwung Gajerrong, and Wilinggin management areas Management Plan 89 identifies dugongs.
Management plan for the Montebello/Barrow Islands Marine Conservation Reserves 2007-2017 Management Plan 55 takes into account dugongs, cetaceans (10 species) including humpback whales and humpback dolphins (Sousa sahulensis formerly known as chinensis).
Rowley Shoals Marine Park Management Plan 2007-2017 Management Plan No 56 identifies humpback whales.

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

http://
Adelaide International Bird Sanctuary - Further information about Adelaide International Bird Sanctuary
Australia's Commonwealth Marine Reserves - Further information about Commonwealth Marine Reserves in Australia

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 managed by State and Territory Government protected area management agencies (for further details refer to http://www.environment.gov.au/land/nrs/getting-involved/agencies).
Further details on protected areas managed by the Australian Government can be found at: http://www.environment.gov.au/topics/national-parks

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

Protected areas managed by the Australian Government - Further information about the range of national parks managed by the Australian Government
Parks and Reserves across Australia - Information on the various agencies involved in managing parks and reserves around Australia

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 10,591 protected areas, covering a total of 150,918,375 hectares, which is 19.63% of Australia.
Since May 2014, South Australia has added a total of 24,212ha to its network of protected areas (this includes the AIBS and Paranki Lagoon CP reported in Q1 and 376ha added to three other existing parks that also support conservation of migratory species).
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. All breeding sites for southern giant petrels within the Australian Antarctic Territory have also been declared Antarctic Specially Protected Areas.

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 3,254,700 km2 - representing about 36.4 per cent of Australian waters, excluding Antarctic waters.
Of this, 3,101,100km2 of marine reserves occur in Commonwealth waters, with the remaining 153,600 km2 occurring in State and Territory waters. Australia currently has the largest representative network of marine protected areas in the world.
Within the reporting period, the Australian Government established the South-east Commonwealth Marine Reserves Network and is actively implementing the South-east Commonwealth Marine Reserves Network Management Plan 2013-2023.
For albatrosses and petrels (ACAP listed species) the Exclusive Economic Zone (EEZ) adjacent to Heard Island, Macquarie Island and the Australian continent 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.
The waters adjacent to all breeding sites for southern giant petrels within the Australian Antarctic Territory are protected under the Protocol on Environmental Protection under the Antarctic Treaty.

1c. Identify the agency, department or organization responsible for leading on this action in your country:
› The Australian Government Department of the Environment and Energy

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. Recently commenced projects include the first tracking of Latham's Snipe (Gallinago hardwickii) from their overwintering grounds in south-east Australia to their breeding grounds in Japan; and tracking of Far Eastern Curlew (Numenius madagascariensis) from Darwin in the Northern Territory to ascertain ecological requirements in the non-breeding season. These projects are both ongoing.
Queensland is planning a project to track endangered Herald Petrel from Raine Island to study at-sea dispersal strategies and feeding patterns.
There has been a long term study of waders and terns in South Australia and Victoria. Species involved are the Ruddy Turnstone, Grey Plover, Bar-tailed Godwit, Pacific Golden Plover and Common Greenshank. A paper was presented at the Australasian Shorebird Conference in New Zealand in 2016 by Tony Flaherty (South Australia) titled: Satellite Tracking of Grey Plover from South Australia to Russia.
ALBATROSSES AND PETRELS
Satellite and other (e.g. geolocators) tracking of albatrosses and petrels continues as an action under the recovery plan for threatened albatrosses and giant petrels. These studies improve knowledge on at-sea distribution and interactions with fisheries. The Tasmanian DPIPWE has undertaken further tracking of albatrosses and petrels in Tasmania, including Macquarie Island, and is working on determining the degree of overlap in the foraging distribution with fishing effort.
Australia continues to contribute the results of its albatross and petrel tracking studies to BirdLife International's global tracking database for all procellariforms.
CETACEANS
The Australian Government is responsible for issuing permits that involve the disturbance of cetaceans in Commonwealth waters. During the reporting period a number of permits have been issued that involve attaching satellite tags to cetaceans.
MARINE TURTLES
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/
Projects have included tracking of 51 green turtles and 1 adult female hawksbill turtle in their foraging areas, 6 adult female greens, 6 adult female loggerhead turtles and 1 adult female hawksbill at nesting beaches.
Two recent marine turtle publications describe data from satellite tracking in Queensland:
Shimada T, Limpus C, Jones R, Hazel J, Groom R, Hamann M (2016a) Sea turtles return home after intentional displacement from coastal foraging areas. Marine Biology 163:1-14. http://dx.doi.org/10.1007/s00227-015-2771-0
Shimada T, Jones R, Limpus C, Groom R, Hamann M (2016c) Long-term and seasonal patterns of sea turtle home ranges in warm coastal foraging habitats: implications for conservation. Marine Ecology Progress Series 562:163-179. https://doi.org/10.3354/meps11972
The Western Australian Department of Parks and Wildlife is tracking flatback turtles within the Northwest Shelf Flatback Turtle Conservation Program. Additional projects have included hawksbills, greens and loggerheads.
SHARKS
The Australian Institute of Marine Science (AIMS), CSIRO 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. A review on scarring and potential impact of tagging on whale sharks has also been conducted by AIMS on behalf of the Western Australian government which has been used by the Western Australian government to produce guiding principles for assessing licence applications for research on whale sharks using satellite telemetry.
The Australian Government, through its National Environmental Science Programme, is funding a project that seeks to define the connectivity of Australia's hammerhead sharks. The project applies genetic and satellite telemetry to examine the movement and connectivity of hammerhead sharks, as there is a clear data gap in the connectivity of hammerhead shark populations across national and international jurisdictional boundaries.

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

Turtle Tracking in Queensland - Further information about tracking marine turtles by Queensland Department of Environment and Heritage Protection

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 shorebird, albatross, cetacean, dugong and shark and turtle research projects will utilise satellite, or other telemetry, subject to rigorous ethical examination.
Specifically, in Queensland a project to radio-track eastern curlews from Moreton Bay up to breeding grounds in northern hemisphere has been proposed. The Queensland Department of Environment and Heritage Protection has purchased purpose built GPS satellite tags for tracking humpback dolphins, Sousa.

3. Results - please describe the positive outcomes of any actions taken
› The tracking of Latham's Snipe and Far Eastern Curlew have only recently commenced, and results are still to be collated, analysed and published. However the first tracks of Latham's Snipe have begun to reveal the migration strategy as the birds move from the south-east into northern parts of Australia by utilising inland waterways and wetlands as staging locations.

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.)
› Australia is always encouraging when it speaks with other countries that are not Parties to CMS, seeking to describe the many benefits of the Convention and its varying obligations.

1a. Identify the agency, department or organization responsible for leading on this action in your country:
› - IOSEA MoU - Australian Government Department of the Environment and Energy
- ACAP - Australian Government Department of the Environment and Energy
- Dugong MoU - Australian Government Department of the Environment and Energy
- Pacific Cetaceans MoU – Australian Government Department of the Environment and Energy
- Sharks MoU - Australian Government Department of the Environment and Energy

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 and Energy was a key driver in the development of a single species action plan for the Far Eastern Curlew. It is anticipated that the draft single species action plan will be submitted to CoP12 for adoption.

2. Identify the agency, department or organization responsible for leading on this action in your country:
› Australian Government Department of the Environment and Energy.

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 towards projects benefiting migratory species through its National Environmental Science Programme, National Landcare Programme, the Reef 2050 Plan and Reef Trust.
These initiatives are meeting both national and international objectives.
Migratory Birds
Habitat protection and restoration in Australia has been advanced by the approval of approximately $26 million under the National Landcare Programme for projects that directly benefit migratory birds and their habitats. The Commonwealth Environmental Water Office, Parks Australia and Great Barrier Reef Marine Park Authority are also working to improve the habitats of migratory birds and reduce or eliminate known threats to these birds such as invasive weeds and feral cats.
Cetaceans
Since 2014, approximately $1.75 million has been directed towards research into cetaceans. The Australian Marine Mammal Centre funded a 'quantitative assessment of the risk of ship strike to humpback whales in the GBR'.
The National Environmental Science Program has funded a number of projects including 'monitoring southern right whales', and 'scoping potential species for ship strike risk analysis'.
Turtles and Dugongs
Since 2014, approximately $10.7 million has been directed towards research and management projects associated with turtles and dugongs. Projects include seagrass mapping, monitoring and protection of key coastal rookeries of marine turtles and funding of specialised indigenous rangers to address illegal poaching and strengthen compliance and enforcement.
Sharks
Since 2014, approximately $4.9 million has been directed towards research projects for migratory sharks. This has included a number of projects that contribute to the habitat protection and management for sawfish, population assessment and monitoring strategies for sawfish and a national population estimate for white sharks in Australian waters.

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:
- $AU100,000 to facilitate implementation of the Single Species Action Plan for Loggerhead Turtles in the South Pacific Ocean;
- $AU20,000 to the IOSEA for marine turtle conservation plan implementation;
- $AU20,000 for the Single Species Action Plan for the Far Eastern Curlew;
- $AU5,000 to the Dugong MoU for conservation activities;
- $AU20,000 to the Sharks MoU for conservation plan implementation.

4. Has your country provided technical and/or scientific assistance to developing countries to facilitate initiatives for the benefit of migratory species?
☑ No

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:

Strategic and Institutional Matters

Strategic Plan for Migratory Species 2015-2023 (Res. 11.2)
› Australia has continued to implement many aspects of the Strategic Plan nationally. This report contains highlights of these activities.

Relationship between the CMS Family and the Civil Society (Res. 11.11)
› Australia provided input to a questionnaire on this subject circulated by the CMS Secretariat.

World Migratory Bird Day (Res. 11.9)
› Australia participates in World Migratory Bird Day each year, with a number of events occurring around the country.

Concerted and Cooperative Actions (Res. 11.13)
› Australia has led the development of a Single Species Action Plan for the Far Eastern Curlew; a species identified for Concerted Action. See Section II for further information.

Avian Species and Issues

Southern Hemisphere Albatross Conservation (Res. 6.3)
› Australia was a leading advocate for the establishment of the Agreement on the Conservation of Albatrosses and Petrels, and continues to support international efforts to achieve and maintain a favourable conservation status for albatrosses and petrels as a Party to the Agreement. ACAP recently celebrated its 10th year since entry into force.
Australia continues to take action to assess changes to the conservation status of and to address the threats facing albatrosses and petrels populations the breed and forage in Australian jurisdiction.

Global Flyway Conservation (Res. 10.10 / Res. 11.14)
› Please see Section Ia) and II for information.

Aquatic Species and Issues

Migratory Marine Species (Res. 9.9 / Res. 10.15)
› Please see Section Ia) and II for information.

Conservation of Migratory Sharks and Rays (Res. 11.20)
› Please see Section Ia) and II for information.

Live capture of Cetacean from the Wild (Res. 11.22)
› Australia provided input to a questionnaire on the subject circulated by the CMS Secretariat.

Loggerhead Turtle in the South Pacific Ocean (Res. 11.21)
› Queensland recently made a minor change to turtle excluder device requirements for commercial trawl fishers, effective from March 1 2017, to reflect US research findings around flap overlap extents and effectiveness.
Australia is currently implementing the Nest to Ocean program which aims to develop collaborative partnerships across governments and the community to enhance the incubation success of turtle eggs in Queensland through active predator control and other nest protection measures.
The Dugong and Turtle Protection Plan has been implemented since 2014 and includes completed activities such as marine debris clean up, and tripling of penalties for poaching and illegal trade of turtle and dugong meat, and in progress activities such as the development of the draft Recovery Plan for Marine Turtles in Australia and the Specialised Indigenous Ranger Programme which includes a turtle management component.
The new draft Recovery Plan for Marine Turtles in Australia (2017) sets out actions of management for a number of threats including terrestrial predation, light pollution, fisheries bycatch, habitat modification (dredging and coastal infrastructure), marine debris, climate change and variability, chemical and terrestrial discharge, international take and indigenous take. This plan is expected to be available mid 2017.
In addition, Australia has developed a National Strategy for Mitigating Vessel Strike of Marine Mega-fauna and an updated Threat abatement plan for the impacts of marine debris on vertebrate marine life, both of which final documents are expected to be available during 2017.
Australia continues to engage in all the relevant International Conventions and Agreements, and organisations

as referred to in the Single Species Action Plan for the Loggerhead Turtle (Caretta caretta) in the South Pacific Ocean.

Improving the Conservation Status of the Leatherback Turtle (Dermochelys coriacea) (Rec. 7.6)

› While Leatherback turtles have been known to sporadically nest in low numbers in Australia, they have not been recorded nesting on the east coast since 1996,or in the Northern Territory since 2011, although one nesting track was observed in the Gulf of Carpentaria in 2016. It is likely that this nesting aggregation is functionally extinct. It is currently unknown which genetic stock(s) these turtles represent, further work is being planned to provide clarification on their genetic relationships.

Annex: Updating Data on Appendix II Species

1. The drop-down lists below contain the list of all species listed in Appendix II. Parties which did not submit a National Report in 2014 are requested to complete the entire form. Parties that did submit a report in 2014 are requested to review and update the data (e.g. new published distribution references and details concerning species added to Appendix II at COP11).

Carcharhiniformes

Carcharhinus falciformis

Please choose the one that applies.
☑ Range State

Published distribution reference
› Last, P and Stevens, J. 2009. Sharks and Rays of Australia. Second edition, CSIRO Publishing.

Pristiformes

Anoxypristis cuspidata

Please choose the one that applies.
☑ Range State

Published distribution reference
› Last, P and Stevens, J. 2009. Sharks and Rays of Australia. Second edition, CSIRO Publishing.

Pristis clavata

Please choose the one that applies.
☑ Range State

Published distribution reference
› Last, P and Stevens, J. 2009. Sharks and Rays of Australia. Second edition, CSIRO Publishing.

Pristis pectinata

Please choose the one that applies.
☑ Not a Range State

Pristis zijsron

Please choose the one that applies.
☑ Range State

Published distribution reference
› Last, P and Stevens, J. 2009. Sharks and Rays of Australia. Second edition, CSIRO Publishing.

Pristis pristis

Please choose the one that applies.
☑ Range State

Published distribution reference
› Otherwise known as Pristis microdon. Last, P and Stevens, J. 2009. Sharks and Rays of Australia. Second edition, CSIRO Publishing.

Myliobatiformes

Manta alfredi

Please choose the one that applies.
☑ Range State

Published distribution reference
› Marshall, A.D., Compagno, L.J.V. and Bennett, M.B. 2009. Redescription of the genus Manta with resurrection of Manta alfredi (Krefft, 1868) (Chondrichthyes; Myliobatoidei; Mobulidae). Zootaxa 2301: 1-28

Mobula mobular

Please choose the one that applies.
☑ Not a Range State

Mobula japanica

Please choose the one that applies.
☑ Range State

Published distribution reference
› Last, P and Stevens, J. 2009. Sharks and Rays of Australia. Second edition, CSIRO Publishing.

Mobula thurstoni

Please choose the one that applies.
☑ Range State

Published distribution reference
› Last, P and Stevens, J. 2009. Sharks and Rays of Australia. Second edition, CSIRO Publishing.

Mobula tarapacana

Please choose the one that applies.
☑ Not a Range State

Mobula eregoodootenkee

Please choose the one that applies.
☑ Range State

Published distribution reference
› Last, P and Stevens, J. 2009. Sharks and Rays of Australia. Second edition, CSIRO Publishing.

Mobula kuhlii

Please choose the one that applies.
☑ Not a Range State

Mobula hypostoma

Please choose the one that applies.
☑ Not a Range State

Mobula rochebrunei

Please choose the one that applies.
☑ Not a Range State

Mobula munkiana

Please choose the one that applies.
☑ Not a Range State