



**MEMORANDUM OF UNDERSTANDING
ON THE CONSERVATION OF
MIGRATORY SHARKS**

CMS/Sharks/MOS4/National
Report/Australia
01/02/2023
Original: English

4th Meeting of the Signatories (Sharks MOS4)
Bonn, 28 February – 2 March 2023

Australia National Report

Page number	Item
1 - 4	Completed National Reporting Form
5 – 34	Completed National Reporting Spreadsheet

Sharks MOS4: National Reporting Format (Offline version)

Purpose: Evaluate the status of how Signatories are meeting the objective of the Memorandum of Understanding: "*to achieve and maintain a favorable conservation status for migratory sharks based on the best available scientific information, taking into account current management and conservation actions, the socio-economic, and other values of these species for the people of the Signatories*" and to report on implementation of the Conservation Plan.

Report submitted by

1. Name*
Lesley Gidding-Reeve
2. Position*
Director, Marine and Freshwater Species Conservation Section
3. Institution*
Department of Climate Change, Energy, the Environment and Water
4. Email*
Lesley.Gidding-Reeve@dcceew.gov.au
5. Contributors

N/A

Species in your area of national jurisdiction

6. Signatory*

Australia
7. Please open the [excel spreadsheet](#) that you were provided for your country by the Secretariat. Use the spreadsheet to review the status of Annex 1-listed species in your national jurisdiction. Once complete, please email the spreadsheet, along with this word document, to the Secretariat (fenella.wood@cms.int)

 I have downloaded the spreadsheet successfully
 I could not download the spreadsheet
8. Do your vessels catch (landed, transhipped, or discarded) any Annex 1-listed species WITHIN your area of national jurisdiction? *

 Yes
 No
9. If yes, please report species-specific catch information within your area of national jurisdiction on the **spreadsheet** provided.

- I have added species-specific information to the spreadsheet
- Not applicable

10. Do your vessels catch (landed, transhipped, or discarded) any Annex 1-listed species OUTSIDE of your area of national jurisdiction? *

- Yes
- No

11. If yes, please report species-specific catch information outside of your area of national jurisdiction on the **spreadsheet** provided.

- I have added species-specific information to the spreadsheet
- Not applicable

Management and conservation measures

12. Are any Annex 1-listed species protected or have a managed fishery? *

- Yes
- No

13. If yes, please include details of protection measures or managed fisheries for each species in the **spreadsheet** provided.

- I have added species-specific information to the spreadsheet
- Not applicable

14. Are there any regulations concerning Annex 1-listed species currently in the process of being proposed or implemented? *

- Yes
- No

15. If yes, please include details of the proposed or in the process of implementation in the **spreadsheet** provided.

- I have added species-specific information to the spreadsheet
- Not applicable

16. Have you established other conservation measures for Annex 1-listed species in your area of national jurisdiction? *

- Yes

No

17. If yes, please include details of the conservation measures in the **spreadsheet** provided.

I have added species-specific information to the spreadsheet

Not applicable

Cooperation

18. Are you cooperating with other Signatories or NGOs on the implementation of the Sharks MOU and its Conservation Plan? *

Internationally, Australia has encouraged the adoption of best practice shark management in Regional Fisheries Management Organisations (RFMOs). This includes promoting internationally anti-finning measures, such as encouraging the full utilization of harvested sharks. Australia also strongly advocates for improving the understanding of the markets for and trade in shark products. through RFMOs. Australia engages with the following RFMOs, and that engagement includes issues related to shark conservation and management: Commission for the Conservation of Southern Bluefin Tuna (CCSBT); Indian Ocean Tuna Commission (IOTC); Southern Indian Ocean Fisheries Agreement (SIOFA); South Pacific Regional Fisheries Management Organisation (SPRFMO); Western & Central Pacific Fisheries Management Commission (WCPFC).

Australia is a metropolitan member of the Secretariat of the Pacific Environment Programme (SPREP). The seven Oceania MOU Signatories are also members (or metropolitan members) of SPREP, as are a further 16 Pacific island range states. In June 2022 Secretariat of the SPREP launched the Pacific Islands Regional Marine Species Programme 2022-2026, a component of which is the Pacific islands Sharks and Rays Action Plan 2022-2026 ([LINK](#)). The overarching goal of the Pacific islands Sharks and Rays Action Plan is “to conserve sharks, rays, and their habitats, ensuring healthy populations in the long term, recognising the traditions and aspirations of the peoples of the Pacific islands region”. This revised action plan was developed by SPREP in consultation with SPREP members and metropolitan members, and supports and complements both the goals of the FAO-IPOA Sharks and the objectives of the CMS Sharks MOU Conservation Plan. The implementation of SPREP marine species action plans are the collective responsibility of SPREP member states, the SPREP Secretariat, partner non-governmental and inter-governmental organisations (NGOs and IGOs), and private sector organisations. SPREP also acknowledges and coordinates with other partner organisations with relevant technical expertise, including the Convention on the International Trade in Endangered Species (CITES), the International Whaling Commission (IWC), the CMS, and its daughter agreements and memorandums of understanding (MOUs).

19. Have you identified the need, or do you have a request for cooperation with other Signatories or Cooperating Partners to implement the Conservation Plan within your country/region? For example a relevant Regional Fisheries Body. *

As per point 18 above.

20. Have you identified any barriers preventing cooperation and partnership to implement the Sharks MOU and its Conservation Plan? *

Nil

Capacity and materials

21. What capacity needs have you identified in your country? Please provide details. *

Not applicable

22. What regional (or national) identification guides, and safe handling and release guidelines do you use? *

*State and territory fishery management agencies publish their own guides for species identification and handling practices relevant to their jurisdiction. For example, in Australia's federally managed fisheries, the Australian Fisheries Management Authority has published the Shark and Ray Handling Practises:
<https://www.afma.gov.au/sites/default/files/uploads/2014/11/Shark-Handling-Guide-2016-Update.pdf>*

23. Please send any documents related to the conservation and management of Annex 1-listed species that should be included in the Info Hub (<https://www.cms.int/sharks/en/sharks-mou-infohub>) to fenella.wood@cms.int.

- Relevant documents for the Info Hub have been emailed to the Secretariat
 Not Applicable

Species		Status of species in your area of national jurisdiction according to IUCN	Status of species in your area of national jurisdiction	Species that your vessels catch WITHIN your area of national jurisdiction ¹	Any supporting documentation for catches within your area of national jurisdiction	Species that your flag vessels catch OUTSIDE of your national jurisdiction limits ²	Any supporting documentation for catches within your area of national jurisdiction
Scientific name	Common name (English)						
<i>Alopias pelagicus</i>	Pelagic Thresher Shark	Extant (Resident)	Extant (Resident)	Taking occurs		Not applicable	
<i>Alopias superciliosus</i>	Bigeye Thresher Shark	Extant (Resident)	Extant (Resident)	Taking occurs		Not applicable	
<i>Alopias vulpinus</i>	Common Thresher Shark	Extant (Resident)	Extant (Resident)	Taking occurs		Not applicable	
<i>Anoxypristis cuspidata</i>	Narrow Sawfish	Extant (Resident)	Extant (Resident)	Taking occurs		Not applicable	
<i>Carcharhinus falciformis</i>	Silky Shark	Extant (Resident)	Extant (Resident)	Taking occurs		Not applicable	
<i>Carcharhinus longimanus</i>	Oceanic Whitetip Shark	Extant (Resident)	Extant (Resident)	Taking occurs		Not applicable	
<i>Carcharhinus obscurus</i>	Dusky Shark	Extant (Resident)	Extant (Resident)	Taking occurs	https://fish.gov.au/report/304-Dusky-Whaler-2020	Not applicable	https://fish.gov.au/report/304-Dusky-Whaler-2020
<i>Carcharodon carcharias</i>	Great White Shark	Extant (Resident)	Extant (Resident)	Taking does not occur	No take species	Not applicable	No take species
<i>Cetorhinus maximus</i>	Basking Shark	Extant (Resident)	Extant (Resident)	Unknown	Not applicable	Not applicable	Not applicable
<i>Isurus oxyrinchus</i>	Shortfin Mako Shark	Extant (Resident)	Extant (Resident)	Taking occurs		Not applicable	
<i>Isurus paucus</i>	Longfin Mako Shark	Extant (Resident)	Extant (Resident)	Taking occurs		Not applicable	
<i>Lamna nasus</i>	Porbeagle	Extant (Resident)	Extant (Resident)	Taking occurs		Not applicable	
<i>Manta alfredi</i> (<i>Mobula alfredi</i>)	Reef Manta Ray	Extant (Resident)	Extant (Resident)	Taking occurs		Not applicable	
<i>Manta birostris</i> (<i>Mobula birostris</i>)	Manta Ray	Extant (Resident)	Extant (Resident)	Taking occurs		Not applicable	

¹ Species that your vessels catch (landed, transhipped or discarded) WITHIN your area of national jurisdiction.

² Species that your flag vessels are engaged in catching (landed, transhipped or discarded) OUTSIDE of your national jurisdiction limits. This also includes those vessels with the potential to take these species.

Species		Status of species in your area of national jurisdiction according to IUCN	Status of species in your area of national jurisdiction	Species that your vessels catch WITHIN your area of national jurisdiction ¹	Any supporting documentation for catches within your area of national jurisdiction	Species that your flag vessels catch OUTSIDE of your national jurisdiction limits ²	Any supporting documentation for catches within your area of national jurisdiction
Scientific name	Common name (English)						
<i>Mobula eregoodootenkee</i> (<i>Mobula eregoodoo</i>)	Longhorned Pygmy Devil Ray	Extant (Resident)	Extant (Resident)	Taking occurs		Not applicable	
<i>Mobula hypostoma</i>	Atlantic Devil Ray	Doesn't Occur	Doesn't Occur			Not applicable	
<i>Mobula japonica</i> (Please enter information under <i>Mobula mobular</i>)	Japanese Devil Ray	Extant (Resident)					
<i>Mobula kuhlii</i>	Shortfin Devil Ray	Extant (Resident)	Extant (Resident)	Taking potentially occurs		Not applicable	
<i>Mobula mobular</i>	Giant Devil Ray	Extant (Resident)	Extant (Resident)	Unknown		Not applicable	
<i>Mobula munkiana</i>	Pygmy Devil Ray	Doesn't Occur					
<i>Mobula rochebrunei</i> (Please enter information under <i>Mobula hypostoma</i>)	Lesser Guinean Devil Ray	Doesn't Occur					
<i>Mobula tarapacana</i>	Sicklefin Devil Ray	Possibly Extant	Possibly Extant	Unknown		Not applicable	
<i>Mobula thurstoni</i>	Bentfin Devil Ray	Extant (Resident)	Extant (Resident)	Taking potentially occurs		Not applicable	
<i>Pristis clavata</i>	Dwarf Sawfish	Extant (Resident)	Extant (Resident)	Taking occurs		Not applicable	
<i>Pristis pectinata</i>	Smalltooth Sawfish	Doesn't Occur					

Species		Status of species in your area of national jurisdiction according to IUCN	Status of species in your area of national jurisdiction	Species that your vessels catch WITHIN your area of national jurisdiction ¹	Any supporting documentation for catches within your area of national jurisdiction	Species that your flag vessels catch OUTSIDE of your national jurisdiction limits ²	Any supporting documentation for catches within your area of national jurisdiction
Scientific name	Common name (English)						
<i>Pristis pristis</i>	Large-tooth Sawfish	Extant (Resident)	Extant (Resident)	Taking occurs		Not applicable	
<i>Pristis zijsron</i>	Green Sawfish	Extant (Resident)	Extant (Resident)	Taking occurs		Not applicable	
<i>Rhincodon typus</i>	Whale Shark	Extant (Resident)	Extant (Resident)	Taking potentially occurs		Not applicable	
<i>Rhinobatos rhinobatos</i>	Common Guitarfish	Doesn't Occur					
<i>Rhynchobatus australiae</i>	Bottlenose Wedgefish	Extant (Resident)	Extant (Resident)	Taking occurs		Not applicable	
<i>Rhynchobatus djiddensis</i>	Whitespotted Wedgefish	Doesn't Occur					
<i>Rhynchobatus laevis</i>	Smoothnose Wedgefish	Doesn't Occur					
<i>Sphyrna lewini</i>	Scalloped Hammerhead Shark	Extant (Resident)	Extant (Resident)	Taking occurs		Not applicable	
<i>Sphyrna mokarran</i>	Great Hammerhead Shark	Extant (Resident)	Extant (Resident)	Taking occurs		Not applicable	
<i>Sphyrna zygaena</i>	Smooth Hammerhead Shark	Extant (Resident)	Extant (Resident)	Taking occurs		Not applicable	
<i>Squalus acanthias</i>	Spiny Dogfish	Extant (Resident)	Extant (Resident)	Taking occurs		Not applicable	
<i>Squatina squatina</i>	Angelshark	Doesn't Occur					

Species		Details of protection measures or managed fisheries for each species	Details of regulations currently being proposed or implemented for each species	Details of conservation measures for each species	Comments, including sources of information, resources and links
Scientific name	Common name (English)				
<i>Alopias pelagicus</i>	Pelagic Thresher Shark	Australian fisheries undertake risk assessments of various fishing activities to Thresher Sharks as part of ecological risk assessments. Jurisdictions in Australia have systems in place for collecting data on recreational fishing of shark species, including through recreational fishing surveys undertaken by state and territory governments.	Fishery rules - Fisheries Management Act 1991		It is a bycatch species of Australian longline fisheries, but catches are low. Mortality rates are high on commercial fishing gear. While population trend data are not available for Australian waters, global analysis estimated a population reduction of ~75% over the last three generations (56 years). This analysis included data from both the Pacific and Indian Oceans. International cooperation and conservation instruments will be vital to allow the recovery of the species in Australia. ³
<i>Alopias superciliosus</i>	Bigeye Thresher Shark	Australian fisheries undertake risk assessments of various fishing activities to Thresher Sharks as part of ecological risk assessments. Jurisdictions in Australia have systems in place for collecting data on recreational fishing of shark species, including through recreational fishing surveys undertaken by state and territory governments.	Fishery rules - Fisheries Management Act 1991		It is a bycatch of Australian longline fisheries, but catches are low. Mortality rates are high on commercial fishing gear. While population trend data are not available for Australian waters, global analysis estimated a population reduction of >30% over the last three generations (56 years). This analysis included data from the North Atlantic, Pacific, and Indian Oceans. International co-operation and conservation instruments will be vital to allow the recovery of the species in Australia. ³

³ Source: the Action Plan for Australian Sharks and Rays 2021 <https://www.nespmarine.edu.au/node/4406>

Species		Details of protection measures or managed fisheries for each species	Details of regulations currently being proposed or implemented for each species	Details of conservation measures for each species	Comments, including sources of information, resources and links
Scientific name	Common name (English)				
<i>Alopias vulpinus</i>	Common Thresher Shark	Australian fisheries undertake risk assessments of various fishing activities to Thresher Sharks as part of ecological risk assessments. Jurisdictions in Australia have systems in place for collecting data on recreational fishing of shark species, including through recreational fishing surveys undertaken by state and territory governments.	Fishery rules - Fisheries Management Act 1991		It is a byproduct of the Commonwealth-managed Southern and Eastern Scalefish and Shark Fishery, where most of the catch was historically retained. It is also caught in Commonwealth and state longline and gillnet fisheries (with high mortality rates). Under the assumption of connectivity with the regional subpopulation(s), declines are inferred in Australia, but not to the extent seen in the Atlantic. It is inferred that the Australian population has undergone a reduction approaching 30% over the last three generations (77 years). International co-operation and conservation instruments will be vital to ensure the species does not become threatened in Australia. ³
<i>Anoxypristis cuspidata</i>	Narrow Sawfish	Listed as 'Migratory' under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act), making the species a Matter of National Environmental Significance. This means that it is offence to cause the unintentional death, injury, trading, taking, keeping or moving of the species, unless it is done in accordance with an accredited management plan or regime. The Federal Department of Climate Change,		In 2015 The Australian Government released a National Multispecies Sawfish Recovery Plan. The recovery plan sets out the research and management actions necessary to stop the decline of, and support the recovery of, the species in Australian waters. https://www.dcceew.gov.au/environment/biodiversity/threatened/publi	This species remains the most regularly caught sawfish in the Commonwealth-managed Northern Prawn Fishery (NPF), as well as in state and territory-managed trawl and gillnet fisheries. Estimates of fishing mortality rates for the species in the NPF are reportedly below a rate that would lead to significant population declines, although when combined with gillnet catches, it is inferred to exceed

Species		Details of protection measures or managed fisheries for each species	Details of regulations currently being proposed or implemented for each species	Details of conservation measures for each species	Comments, including sources of information, resources and links
Scientific name	Common name (English)				
		<p>Energy, the Environment and Water undertakes the assessment and accreditation of fishery management arrangements to ensure that measures are in place to avoid capture and mortality of, or injuries to, listed species. All Commonwealth managed fisheries, and all state based fisheries that export product have been assessed and accredited under the EPBC Act on the basis that the management plan or regime includes all reasonable steps to ensure that members of protected species are not adversely affected by the fishing operation. Currently under assessment for potential threatened species listing status under EPBC Act. The species is protected in Australian waters under state/territory and/or national legislative mechanisms.</p>		<p>cations/recovery/sawfish-river-sharks-multispecies-recovery-plan</p> <p>Currently under assessment for potential listing as a threatened species under the EPBC Act.</p>	<p>sustainable levels. The significant population reduction in the Narrow Sawfish largely occurred prior to the last three generations (pre-2000s), noting that protection and management measures have reduced mortality over the last 1–2 decades. Over the last three generations (18 years), it is suspected that the population has undergone a reduction of >30%. Although threatened here, Australia represents the most significant remaining global location for this species.³</p>
<i>Carcharhinus falciformis</i>	Silky Shark	Listed as 'Migratory' under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act), making the species a Matter of National Environmental Significance. This means that it is offence to cause the unintentional death, injury, trading, taking, keeping or moving of the species, unless it is done in accordance with an accredited management	Fishery rules - Fisheries Management Act 1991		It is a bycatch of Australian longline fisheries (including the Eastern Tuna and Billfish Fishery and Western Tuna and Billfish Fishery) but interaction levels are generally low with management of shark catches in place. However, while population trend data are not available for Australian waters, global analysis estimated a population reduction of 47–54%

Species		Details of protection measures or managed fisheries for each species	Details of regulations currently being proposed or implemented for each species	Details of conservation measures for each species	Comments, including sources of information, resources and links
Scientific name	Common name (English)				
		<p>plan or regime. The Federal Department of Climate Change, Energy, the Environment and Water undertakes the assessment and accreditation of fishery management arrangements to ensure that measures are in place to avoid capture and mortality of, or injuries to, listed species. All Commonwealth managed fisheries, and all state based fisheries that export product have been assessed and accredited under the EPBC Act on the basis that the management plan or regime includes all reasonable steps to ensure that members of protected species are not adversely affected by the fishing operation.</p> <p>It is a bycatch of Australian longline fisheries (including the Eastern Tuna and Billfish Fishery and Western Tuna and Billfish Fishery) but interaction levels are generally low with management of shark catches in place.</p>			<p>over the last three generations (45 years). This analysis included data from the Western Central Pacific. International co-operation and conservation instruments will be vital to allow the recovery of the species in Australia.³</p>
<i>Carcharhinus longimanus</i>	Oceanic Whitetip Shark	Listed as 'Migratory' under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act), making the species a Matter of National Environmental Significance. This means that it is offence to cause the unintentional death, injury, trading, taking,	Fishery rules - Fisheries Management Act 1991		It is a bycatch of Australian longline fisheries (including the Eastern Tuna and Billfish Fishery and Western Tuna and Billfish Fishery) at low levels. While population trend data are not available for Australian waters, global analysis estimated a

Species		Details of protection measures or managed fisheries for each species	Details of regulations currently being proposed or implemented for each species	Details of conservation measures for each species	Comments, including sources of information, resources and links
Scientific name	Common name (English)				
		<p>keeping or moving of the species, unless it is done in accordance with an accredited management plan or regime. The Federal Department of Climate Change, Energy, the Environment and Water undertakes the assessment and accreditation of fishery management arrangements to ensure that measures are in place to avoid capture and mortality of, or injuries to, listed species. All Commonwealth managed fisheries, and all state based fisheries that export product have been assessed and accredited under the EPBC Act on the basis that the management plan or regime includes all reasonable steps to ensure that members of protected species are not adversely affected by the fishing operation.</p> <p>It is a bycatch of Australian longline fisheries (including the Eastern Tuna and Billfish Fishery and Western Tuna and Billfish Fishery) but interaction levels are generally low with management of shark catches in place.</p>			<p>population reduction of >98% over the last three generations (62 years). This analysis included data from the Western Central Pacific and Indian Oceans. The Australian assessment of the Oceanic Whitetip Shark reflects the global category of Critically Endangered under the assumption of connectivity with the regional subpopulation(s). International cooperation and conservation instruments will be vital to allow the recovery of the species in Australia.³</p>
<i>Carcharhinus obscurus</i>	Dusky Shark	When the species was added to Appendix II in 2017, Australia lodged a reservation to avoid unintended consequences in domestic law that arise	Fishery rules - Fisheries Management Act 1991		It is a commercially important target species in Western Australia where catch-per-unit-effort data between 1975 and 2015 revealed annual rates of reduction of 3.8%

Species		Details of protection measures or managed fisheries for each species	Details of regulations currently being proposed or implemented for each species	Details of conservation measures for each species	Comments, including sources of information, resources and links
Scientific name	Common name (English)				
		<p>automatically upon listing in Appendix II. Australia supports conservation efforts for the species and will continue to cooperate in international efforts.</p> <p>All Commonwealth managed fisheries and state based fisheries that have an export component have been assessed against the <i>Guidelines for the ecologically sustainable management of fisheries- edition 2</i> (under the EPBC Act) to determine the extent to which management arrangements will ensure the fishery is managed in an ecologically sustainable way.⁴</p>			(>90% population reduction when scaled to three generations; 114 years). However, the long-term estimate is based on considerable projection of the data and is indicative of historic declines rather than a stable and increasing trend since 2006 when major management measures were introduced. The Western Australian decline is not representative of the entire range as apart from New South Wales where commercial whaler shark catches are now relatively low and stable, considerable areas of its range are not subject to significant threats. ³
<i>Carcharodon carcharias</i>	Great White Shark	Listed as 'Migratory' and 'Vulnerable' under the EPBC Act, making the species a Matter of National Environmental Significance. This means that it is offence to cause the unintentional death, injury, trading, taking, keeping or moving of the species, unless it is done in accordance with an accredited management plan or regime. The Federal Department of Climate Change, Energy, the Environment and Water undertakes the assessment	Fishery rules - Fisheries Management Act 1991	<p>In 2013 The Australian Government released National Recovery Plan for the species.</p> <p>The recovery plan sets out the research and management actions necessary to stop the decline of, and support the recovery of, the white shark in Australian waters.⁵</p>	Although protected, it is a target of shark control programs in some states and is a bycatch of southern gillnet fisheries (post-release survivorship requires examination). Application of close-kin mark-recapture estimated population sizes of 750 (range: 470–1,030) mature individuals for Eastern Australasia, and 1,460 (760–2,250) for Southern-Western Australia. Combined, the point estimate for the Australasian population size (2,210) is below

⁴ <https://www.dcceew.gov.au/environment/marine/publications/guidelines-ecologically-sustainable-management-fisheries>

⁵ <https://www.dcceew.gov.au/environment/biodiversity/threatened/recovery-plans/recovery-plan-white-shark-carcharodon-carcharias>

Species		Details of protection measures or managed fisheries for each species	Details of regulations currently being proposed or implemented for each species	Details of conservation measures for each species	Comments, including sources of information, resources and links
Scientific name	Common name (English)				
		and accreditation of fishery management arrangements to ensure that measures are in place to avoid capture and mortality of, or injuries to, listed species. All Commonwealth managed fisheries, and all state based fisheries that export product have been assessed and accredited under the EPBC Act on the basis that the management plan or regime includes all reasonable steps to ensure that members of protected species are not adversely affected by the fishing operation.			the Endangered criterion C threshold (<2,500 mature individuals). However, there is evidence of no continuing decline. Historical population reductions have been documented on the east coast from the 1950s onwards. Some analyses suggesting declines of >90% are considered overestimates. The causes of the population reduction are clearly reversible, understood, and have ceased (threats are ongoing but mortality is not likely to be at levels causing additional population reduction). It is inferred that the population has undergone a reduction of >50% over the last three generations (81 years). ³
<i>Cetorhinus maximus</i>	Basking Shark	Listed as 'Migratory' under EPBC Act, making the species a Matter of National Environmental Significance. This means that it is offence to cause the unintentional death, injury, trading, taking, keeping or moving of the species, unless it is done in accordance with an accredited management plan or regime. The Federal Department of Climate Change, Energy, the Environment and Water undertakes the assessment and accreditation of fishery management arrangements to ensure that measures are in place	Fishery rules - Fisheries Management Act 1991		There are very few local records or sightings suggesting that it rarely interacts with Australian fisheries or may primarily be a vagrant or occasional visitor. It is a bycatch of the Commonwealth-managed Southern and Eastern Scalefish and Shark Fishery and is susceptible to ship strike given its surface-swimming behaviour. The global population is suspected to have undergone a reduction of >50% over the last three generations (102 years). This is partially based on steep decline estimates in waters adjacent to

Species		Details of protection measures or managed fisheries for each species	Details of regulations currently being proposed or implemented for each species	Details of conservation measures for each species	Comments, including sources of information, resources and links
Scientific name	Common name (English)				
		to avoid capture and mortality of, or injuries to, listed species. All Commonwealth managed fisheries, and all state based fisheries that export product have been assessed and accredited under the EPBC Act on the basis that the management plan or regime includes all reasonable steps to ensure that members of protected species are not adversely affected by the fishing operation.			Australia (i.e., New Zealand). In various regions, there are some signs of stabilisation and possible slow recovery with the ending of target fishing and high levels of protection. The Australian assessment of the Basking Shark reflects the global category of Endangered. International co-operation and conservation instruments will be vital to allow the recovery of the species in Australia. ³
<i>Isurus oxyrinchus</i>	Shortfin Mako Shark	Listed as 'Migratory' under EPBC Act, making the species a Matter of National Environmental Significance. This means that it is offence to cause the unintentional death, injury, trading, taking, keeping or moving of the species, unless it is done in accordance with an accredited management plan or regime. The Federal Department of Climate Change, Energy, the Environment and Water undertakes the assessment and accreditation of fishery management arrangements to ensure that measures are in place to avoid capture and mortality of, or injuries to, listed species. All Commonwealth managed fisheries, and all state based fisheries that export product have been assessed and accredited	Fishery rules - Fisheries Management Act 1991		It is a bycatch of the Commonwealth-managed Eastern Tuna and Billfish Fishery, and to a lesser extent, in other Australian line fisheries (with high mortality rates). Global trend analysis estimated a population reduction of ~50% over the last three generations (72 years). This analysis included a population reduction of 48% over the last three generations in the Indian Ocean, but also an increasing trend in New Zealand. While there is some uncertainty over the species' Australian population status, this assessment reflects a balance between the Indian Ocean and New Zealand trends, with an inferred population reduction of ~30% over the last three generations (72 years).

Species		Details of protection measures or managed fisheries for each species	Details of regulations currently being proposed or implemented for each species	Details of conservation measures for each species	Comments, including sources of information, resources and links
Scientific name	Common name (English)				
		under the EPBC Act on the basis that the management plan or regime includes all reasonable steps to ensure that members of protected species are not adversely affected by the fishing operation.			International co-operation and conservation instruments will be vital to allow the recovery of the species in Australia. ³
<i>Isurus paucus</i>	Longfin Mako Shark	Listed as 'Migratory' under the EPBC Act, making the species a Matter of National Environmental Significance. This means that it is offence to cause the unintentional death, injury, trading, taking, keeping or moving of the species, unless it is done in accordance with an accredited management plan or regime. The Federal Department of Climate Change, Energy, the Environment and Water undertakes the assessment and accreditation of fishery management arrangements to ensure that measures are in place to avoid capture and mortality of, or injuries to, listed species. All Commonwealth managed fisheries, and all state based fisheries that export product have been assessed and accredited under the EPBC Act on the basis that the management plan or regime includes all reasonable steps to ensure that members of protected species are not adversely affected by the fishing	Fishery rules - Fisheries Management Act 1991		It is a bycatch of the Commonwealth-managed Eastern Tuna and Billfish Fishery and the Southern and Eastern Scalefish and Shark Fishery. Population trend data are not available for Australia, indeed time-series are lacking from all areas except for the Atlantic United States (which shows a severe population reduction). Given a lack of data from the Pacific or Indian Oceans, the population status of the Shortfin Mako is used to infer the status of the Longfin Mako. Global analysis estimated a population reduction of ~50% over the last three generations (72 years) for the Shortfin Mako. This analysis included data from the Indian Ocean indicating a population reduction of 48% over the last three generations, but also data from New Zealand indicating an increasing trend. Balancing these trends resulted in an inferred population reduction of ~30% over the last three generations (72

Species		Details of protection measures or managed fisheries for each species	Details of regulations currently being proposed or implemented for each species	Details of conservation measures for each species	Comments, including sources of information, resources and links
Scientific name	Common name (English)				
		operation. An exemption under law allows recreational fishers to retain the species in accordance with state/territory regulated bag limits. Commercial fishers are permitted to retain the species if the species is dead when brought up to the boat however live individuals are required to be released. Australian government researchers, and researchers funded by the government, have studied and published data on the details marked above for this species.			years). International co-operation and conservation instruments will be vital to allow the recovery of the species in Australia. ³
<i>Lamna nasus</i>	Porbeagle	Listed as 'Migratory' under the EPBC Act, making the species a Matter of National Environmental Significance. This means that it is offence to cause the unintentional death, injury, trading, taking, keeping or moving of the species, unless it is done in accordance with an accredited management plan or regime. The Federal Department of Climate Change, Energy, the Environment and Water undertakes the assessment and accreditation of fishery management arrangements to ensure that measures are in place to avoid capture and mortality of, or injuries to, listed species. All Commonwealth managed fisheries, and all state based	Fishery rules - Fisheries Management Act 1992		It is a bycatch of the Commonwealth-managed Eastern Tuna and Billfish Fishery, and to a lesser extent, in other Commonwealth line fisheries (with generally low catch levels in these fisheries). Catch rate indicators showed generally stable or increasing catches across most of the Southern Hemisphere and trend analysis of modelled relative abundance for 1962–2015 revealed only modest annual rates of reduction (the equivalent of <20% population reduction over the last three generations; 115 years). The species is globally threatened (due to its North Atlantic status); therefore, the Southern Hemisphere including

Species		Details of protection measures or managed fisheries for each species	Details of regulations currently being proposed or implemented for each species	Details of conservation measures for each species	Comments, including sources of information, resources and links
Scientific name	Common name (English)				
		<p>fisheries that export product have been assessed and accredited under the EPBC Act on the basis that the management plan or regime includes all reasonable steps to ensure that members of protected species are not adversely affected by the fishing operation.</p> <p>Australian fisheries undertake risk assessments of various fishing activities to Mako and Porbeagle sharks as part of ecological risk assessments. An exemption under law allows recreational fishers to retain the species in accordance with state/territory regulated bag limits. Commercial fishers are permitted to retain the species if the species is dead when brought up to the boat however live individuals are required to be released. Australian government researchers, and researchers funded by the government, have studied and published data on the details marked above for this species.</p>			Australia represents a global refuge. ³
<i>Manta alfredi</i> (<i>Mobula alfredi</i>)	Reef Manta Ray	Listed as 'Migratory' under EPBC Act, making the species a Matter of National Environmental Significance. This means that it is offence to cause the unintentional death, injury, trading, taking, keeping or moving of the species,	Fishery rules - Fisheries Management Act 1993		It does not regularly interact with Australian fisheries due to habitat, behaviour, and limited catchability. Many key local aggregation sites are protected in marine reserves. The overall population trend is suspected to be stable. There is

Species		Details of protection measures or managed fisheries for each species	Details of regulations currently being proposed or implemented for each species	Details of conservation measures for each species	Comments, including sources of information, resources and links
Scientific name	Common name (English)				
		<p>unless it is done in accordance with an accredited management plan or regime. The Federal Department of Climate Change, Energy, the Environment and Water undertakes the assessment and accreditation of fishery management arrangements to ensure that measures are in place to avoid capture and mortality of, or injuries to, listed species. All Commonwealth managed fisheries, and all state based fisheries that export product have been assessed and accredited under the EPBC Act on the basis that the management plan or regime includes all reasonable steps to ensure that members of protected species are not adversely affected by the fishing operation.</p>			<p>nothing to infer or suspect population reduction at this time and the Reef Manta Ray is assessed as Least Concern. This species is globally threatened; therefore, Australia represents a global refuge.³</p>
<i>Manta birostris</i> (<i>Mobula birostris</i>)	Manta Ray	<p>Listed as 'Migratory' under the EPBC Act, making the species a Matter of National Environmental Significance. This means that it is offence to cause the unintentional death, injury, trading, taking, keeping or moving of the species, unless it is done in accordance with an accredited management plan or regime. The Federal Department of Climate Change, Energy, the Environment and Water undertakes the assessment</p>	<p>Fishery rules - Fisheries Management Act 1994</p>		<p>It does not regularly interact with Australian fisheries due to habitat, behaviour, and limited catchability. Many key local aggregation sites are protected in marine reserves. The overall population trend is suspected to be stable. There is nothing to infer or suspect population reduction at this time and the Reef Manta Ray is assessed as Least Concern. This species is globally threatened;</p>

Species		Details of protection measures or managed fisheries for each species	Details of regulations currently being proposed or implemented for each species	Details of conservation measures for each species	Comments, including sources of information, resources and links
Scientific name	Common name (English)				
		and accreditation of fishery management arrangements to ensure that measures are in place to avoid capture and mortality of, or injuries to, listed species. All Commonwealth managed fisheries, and all state based fisheries that export product have been assessed and accredited under the EPBC Act on the basis that the management plan or regime includes all reasonable steps to ensure that members of protected species are not adversely affected by the fishing operation.			therefore, Australia represents a global refuge. ³
<i>Mobula eregoodootenkee</i> (<i>Mobule eregoodoo</i>)	Longhorned Pygmy Devil Ray	Listed as 'Migratory' under the EPBC Act, making the species a Matter of National Environmental Significance. This means that it is offence to cause the unintentional death, injury, trading, taking, keeping or moving of the species, unless it is done in accordance with an accredited management plan or regime. The Federal Department of Climate Change, Energy, the Environment and Water undertakes the assessment and accreditation of fishery management arrangements to ensure that measures are in place to avoid capture and mortality of, or injuries to, listed species. All Commonwealth managed	Fishery rules - Fisheries Management Act 1995		The Long-horned Pygmy Devilray is a poorly-known ray with a wide northern Australian range. The extent of its Australian range is poorly-defined due to confusion with Kuhl's Devilray. Pygmy devil ray species are a bycatch of shark control programs, particularly in New South Wales, and of the Northern Territory Offshore Net and Line Fishery (and likely in some other state fisheries). The species-specific catch composition remains unresolved. Primarily susceptible to gillnet fisheries, these species do not appear to interact regularly with fisheries across most of their wide Australian range, and overall

Species		Details of protection measures or managed fisheries for each species	Details of regulations currently being proposed or implemented for each species	Details of conservation measures for each species	Comments, including sources of information, resources and links
Scientific name	Common name (English)				
		fisheries, and all state based fisheries that export product have been assessed and accredited under the EPBC Act on the basis that the management plan or regime includes all reasonable steps to ensure that members of protected species are not adversely affected by the fishing operation.			fishing mortality is expected to be low. Population trend is unknown, although it is suspected to be stable based on the levels of fishing effort within their range. There is nothing to infer or suspect population reduction at this time and the Long-horned Pygmy Devilray is assessed as Least Concern. This species is globally threatened; therefore, Australia represents a global refuge. ³
<i>Mobula hypostoma</i>	Atlantic Devil Ray				
<i>Mobula japonica</i> (Please enter information under <i>Mobula mobular</i>)	Japanese Devil Ray				
<i>Mobula kuhlii</i>	Shortfin Devil Ray	Listed as 'Migratory' under EPBC Act, making the species a Matter of National Environmental Significance. This means that it is offence to cause the unintentional death, injury, trading, taking, keeping or moving of the species, unless it is done in accordance with an accredited management plan or regime. The Federal	Fishery rules - Fisheries Management Act 1995		Kuhl's Devilray is a poorly-known ray with a wide northern Australian range. Outside of Australian waters, it has a wide tropical Indo-West Pacific distribution. The extent of its Australian range is poorly-defined due to confusion with the Long-horned Pygmy Devilray. Pygmy devil ray species are a bycatch of shark control

Species		Details of protection measures or managed fisheries for each species	Details of regulations currently being proposed or implemented for each species	Details of conservation measures for each species	Comments, including sources of information, resources and links
Scientific name	Common name (English)				
		<p>Department of Climate Change, Energy, the Environment and Water undertakes the assessment and accreditation of fishery management arrangements to ensure that measures are in place to avoid capture and mortality of, or injuries to, listed species. All Commonwealth managed fisheries, and all state based fisheries that export product have been assessed and accredited under the EPBC Act on the basis that the management plan or regime includes all reasonable steps to ensure that members of protected species are not adversely affected by the fishing operation.</p>			<p>programs, particularly in New South Wales, and of the Northern Territory Offshore Net and Line Fishery (and likely in some other state fisheries). The species specific catch composition remains unresolved. Primarily susceptible to gillnet fisheries, these species do not appear to interact regularly with fisheries across most of their wide Australian range, and overall fishing mortality is expected to be low. Population trend is unknown, although it is suspected to be stable based on the levels of fishing effort within their range. There is nothing to infer or suspect population reduction at this time and Kuhl's Devilray is assessed as Least Concern. This species is globally threatened; therefore, Australia represents a global refuge.³</p>
<i>Mobula mobular</i>	Giant Devil Ray	<p>Listed as 'Migratory' under the EPBC Act, making the species a Matter of National Environmental Significance. This means that it is offence to cause the unintentional death, injury, trading, taking, keeping or moving of the species, unless it is done in accordance with an accredited management plan or regime. The Federal Department of Climate Change, Energy, the Environment and</p>	<p>Fishery rules - Fisheries Management Act 1995</p>		<p>The Giant Devilray is a rarely-encountered ray with a wide but patchy Australian range. It is likely to be wider ranging in Australian waters than currently documented. It is not likely to regularly interact with Australian fisheries due to habitat, behaviour, and limited catchability. However, the global population has undergone a severe population reduction, and given that the species is highly-</p>

Species		Details of protection measures or managed fisheries for each species	Details of regulations currently being proposed or implemented for each species	Details of conservation measures for each species	Comments, including sources of information, resources and links
Scientific name	Common name (English)				
		Water undertakes the assessment and accreditation of fishery management arrangements to ensure that measures are in place to avoid capture and mortality of, or injuries to, listed species. All Commonwealth managed fisheries, and all state based fisheries that export product have been assessed and accredited under the EPBC Act on the basis that the management plan or regime includes all reasonable steps to ensure that members of protected species are not adversely affected by the fishing operation.			mobile, the decline is likely to have affected the portion of the population occurring in, or visiting, Australian waters. Balancing global declines with a lack of local threats, it is suspected that the population has undergone a reduction approaching 30% over the last three generations (38 years). International co-operation and conservation instruments will be vital to ensure the species does not become threatened in Australia. ³
<i>Mobula munkiana</i>	Pygmy Devil Ray				
<i>Mobula rochebrunei</i> (Please enter information under <i>Mobula hypostoma</i>)	Lesser Guinean Devil Ray				
<i>Mobula tarapacana</i>	Sicklefin Devil Ray	All Commonwealth managed fisheries and state based fisheries that have an export component have been assessed against the	Fishery rules - Fisheries Management Act 1995		The Chilean Devilray is a rarely-encountered and poorly-known ray with a relatively restricted southeast Australian range

Species		Details of protection measures or managed fisheries for each species	Details of regulations currently being proposed or implemented for each species	Details of conservation measures for each species	Comments, including sources of information, resources and links
Scientific name	Common name (English)				
		Guidelines for the ecologically sustainable management - edition 2 (under EPBC Act) to determine the extent to which management arrangements will ensure the fishery is managed in an ecologically sustainable way.			(although with an extent of occurrence >20,000 km ²). However, it is known only from a limited number of local records and most certainly occurs more widely than presently recorded. Outside of Australian waters, it has a wide but patchy global tropical and temperate distribution. This viviparous species has limited biological productivity (estimated GL, 12.8 years; reproductive cycle possibly 1–3 years like other devilrays; litter size, 1 pup). It is not likely to regularly interact with Australian fisheries due to habitat, behaviour, and limited catchability. However, the global population has undergone a severe population reduction, and given that the species is highly-mobile, the decline is likely to have affected the portion of the population occurring in, or visiting, Australian waters. International co-operation and conservation instruments will be vital to ensure the species does not become threatened in Australia. ³
<i>Mobula thurstoni</i>	Bentfin Devil Ray	Listed as 'Migratory' under EPBC Act, making the species a Matter of National Environmental Significance. This means that it is offence to cause the unintentional death, injury, trading, taking,	Fishery rules - Fisheries Management Act 1995		The Bentfin Devilray is a rarely-encountered and poorly-known ray with a wide but separated northwest and northeast Australian range. However, it is known only from a limited number of local

Species		Details of protection measures or managed fisheries for each species	Details of regulations currently being proposed or implemented for each species	Details of conservation measures for each species	Comments, including sources of information, resources and links
Scientific name	Common name (English)				
		keeping or moving of the species, unless it is done in accordance with an accredited management plan or regime. The Federal Department of Climate Change, Energy, the Environment and Water undertakes the assessment and accreditation of fishery management arrangements to ensure that measures are in place to avoid capture and mortality of, or injuries to, listed species. All Commonwealth managed fisheries, and all state based fisheries that export product have been assessed and accredited under the EPBC Act on the basis that the management plan or regime includes all reasonable steps to ensure that members of protected species are not adversely affected by the fishing operation.			records and most certainly occurs more widely than presently recorded. Outside of Australian waters, it has a wide but patchy global tropical and warm-temperate distribution. It is not likely to regularly interact with Australian fisheries due to habitat, behaviour, and limited catchability. However, the global population has undergone a severe population reduction, and given that the species is highly-mobile, the decline is likely to have affected the portion of the population occurring in, or visiting, Australian waters. International co-operation and conservation instruments will be vital to ensure the species does not become threatened in Australia. ³
<i>Pristis clavata</i>	Dwarf Sawfish	Listed as 'Migratory' and 'Vulnerable' under the EPBC Act, making the species a Matter of National Environmental Significance. This means that it is offence to cause the unintentional death, injury, trading, taking, keeping or moving of the species, unless it is done in accordance with an accredited management	Fishery rules - Fisheries Management Act 1995	In 2015 The Australian Government released a National Multispecies Sawfish Recovery Plan. The recovery plan sets out the research and management actions necessary to stop the decline of, and support the recovery of, the species in Australian waters. ⁶	The Dwarf Sawfish is a rare ray with a wide northern Australian range. All Australian sawfish populations were depleted historically with the development of gillnet and trawl fisheries due to their high catchability. This species remains a bycatch of the Commonwealth-managed Northern Prawn Fishery, as well as

⁶ <https://www.dcceew.gov.au/environment/biodiversity/threatened/publications/recovery/sawfish-river-sharks-multispecies-recovery-plan>

Species		Details of protection measures or managed fisheries for each species	Details of regulations currently being proposed or implemented for each species	Details of conservation measures for each species	Comments, including sources of information, resources and links
Scientific name	Common name (English)				
		plan or regime. The Federal Department of Climate Change, Energy, the Environment and Water undertakes the assessment and accreditation of fishery management arrangements to ensure that measures are in place to avoid capture and mortality of, or injuries to, listed species. All Commonwealth managed fisheries, and all state based fisheries that export product have been assessed and accredited under the EPBC Act on the basis that the management plan or regime includes all reasonable steps to ensure that members of protected species are not adversely affected by the fishing operation.			state and territory-managed trawl and gillnet fisheries. Because of its preference for shallow nearshore waters, it is caught much less regularly in trawl fisheries than other sawfish species, and its major threat are inshore gillnet fisheries. The significant population reduction in the Dwarf Sawfish largely occurred prior to the last three generations (pre-1970), noting that protection and management measures have reduced mortality over the last 1–2 decades. Although threatened here, Australia represents the most significant remaining global location for this species. ³
<i>Pristis pectinata</i>	Smalltooth Sawfish				
<i>Pristis pristis</i>	Largetooth Sawfish	Listed as 'Migratory' and 'Vulnerable' under the EPBC Act, making the species a Matter of National Environmental Significance. This means that it is offence to cause the unintentional death, injury, trading, taking, keeping or moving of the species, unless it is done in accordance with an accredited management plan or regime. The Federal Department of Climate Change,	Fishery rules - Fisheries Management Act 1996	In 2015 The Australian Government released a National Multispecies Sawfish Recovery Plan. The recovery plan sets out the research and management actions necessary to stop the decline of, and support the recovery of, the species in Australian waters. ⁶	The Largetooth Sawfish was a historically common euryhaline ray with a wide northern Australian range. Outside of Australian waters, it once had a wide global tropical distribution. All Australian sawfish populations were depleted historically with the development of gillnet and trawl fisheries due to their high catchability. It is a bycatch of the Commonwealth managed Northern Prawn Fishery

Species		Details of protection measures or managed fisheries for each species	Details of regulations currently being proposed or implemented for each species	Details of conservation measures for each species	Comments, including sources of information, resources and links
Scientific name	Common name (English)				
		<p>Energy, the Environment and Water undertakes the assessment and accreditation of fishery management arrangements to ensure that measures are in place to avoid capture and mortality of, or injuries to, listed species. All Commonwealth managed fisheries, and all state based fisheries that export product have been assessed and accredited under the EPBC Act on the basis that the management plan or regime includes all reasonable steps to ensure that members of protected species are not adversely affected by the fishing operation. Currently being reassessed under the EPBC Act for potential up listing to a higher threatened species category.</p>			(NPF), as well as state and territory-managed trawl and gillnet fisheries. Estimates of fishing mortality rates for the species in the NPF are reportedly below a rate that would lead to significant population declines, although when combined with gillnet catches in northern Australia, it is inferred to exceed sustainable levels. Although threatened here, Australia represents the most significant remaining global location for this species. ³
<i>Pristis zijsron</i>	Green Sawfish	Listed as 'Migratory' and 'Vulnerable' under the EPBC Act, making the species a Matter of National Environmental Significance. This means that it is offence to cause the unintentional death, injury, trading, taking, keeping or moving of the species, unless it is done in accordance with an accredited management plan or regime. The Federal Department of Climate Change, Energy, the Environment and	Fishery rules - Fisheries Management Act 1997	In 2015 The Australian Government released a National Multispecies Sawfish Recovery Plan. The recovery plan sets out the research and management actions necessary to stop the decline of, and support the recovery of, the species in Australian waters. ⁶	The Green Sawfish was a historically common ray with a wide Australian range (except for southern waters). Outside of Australian waters, it once had a wide Indo-West Pacific distribution. All Australian sawfish populations were depleted historically with the development of gillnet and trawl fisheries due to their high catchability. Once found south to Sydney, its east coast range has contracted to north Queensland. It

Species		Details of protection measures or managed fisheries for each species	Details of regulations currently being proposed or implemented for each species	Details of conservation measures for each species	Comments, including sources of information, resources and links
Scientific name	Common name (English)				
		Water undertakes the assessment and accreditation of fishery management arrangements to ensure that measures are in place to avoid capture and mortality of, or injuries to, listed species. All Commonwealth managed fisheries, and all state based fisheries that export product have been assessed and accredited under the EPBC Act on the basis that the management plan or regime includes all reasonable steps to ensure that members of protected species are not adversely affected by the fishing operation.			is a bycatch of the Commonwealth managed Northern Prawn Fishery (NPF), as well as state and territory-managed trawl and gillnet fisheries. Estimates of fishing mortality rates for the species in the NPF are reportedly below a rate that would lead to significant population declines, although when combined with gillnet catches it is inferred to exceed sustainable levels. Although threatened here, Australia represents the most significant remaining global location for this species. ³
<i>Rhincodon typus</i>	Whale Shark	Listed as 'Migratory' and 'Vulnerable' under EPBC Act, making the species a Matter of National Environmental Significance. This means that it is offence to cause the unintentional death, injury, trading, taking, keeping or moving of the species, unless it is done in accordance with an accredited management plan or regime. The Federal Department of Climate Change, Energy, the Environment and Water undertakes the assessment and accreditation of fishery management arrangements to ensure that measures are in place to avoid capture and mortality of,	Fishery rules - Fisheries Management Act 1998		The Whale Shark is a common planktivorous shark with a wide Australian range. Outside of Australian waters, it has a circumglobal tropical and warm-temperate distribution. Ningaloo Reef in Western Australia is a locally important aggregation site. This is a highly-mobile species with genetic results indicating distinct Indo-Pacific and Atlantic subpopulations. The species does not regularly interact with Australian fisheries although it is susceptible to ship strike given its surface-swimming behaviour. The Indo-Pacific subpopulation is inferred to have undergone a

Species		Details of protection measures or managed fisheries for each species	Details of regulations currently being proposed or implemented for each species	Details of conservation measures for each species	Comments, including sources of information, resources and links
Scientific name	Common name (English)				
		or injuries to, listed species. All Commonwealth managed fisheries, and all state based fisheries that export product have been assessed and accredited under the EPBC Act on the basis that the management plan or regime includes all reasonable steps to ensure that members of protected species are not adversely affected by the fishing operation.			reduction of 63% over the last three generations (75 years). This is based on decline estimates, and past, and in some cases, ongoing levels of exploitation. International co-operation and conservation instruments will be vital to allow the recovery of the species in Australia. ³
<i>Rhinobatos rhinobatos</i>	Common Guitarfish				
<i>Rhynchobatus australiae</i>	Bottlenose Wedgefish	When the species was added to Appendix II in 2017, Australia lodged a reservation to avoid unintended consequences in domestic law that arise automatically upon listing in Appendix II. Australia supports conservation efforts for the species and will continue to cooperate in international efforts. All Commonwealth managed fisheries and state based fisheries that have an export component have been assessed against the Guidelines for the ecologically sustainable management of fisheries - edition 2 (under EPBC Act) to determine the extent to which management arrangements	Fishery rules - Fisheries Management Act 2000		The Bottlenose Wedgefish is a common ray with a wide northern Australian range. Outside of Australian waters, it has a wide tropical Indo-West Pacific distribution. <i>Rhynchobatus</i> species are a bycatch of the Commonwealth-managed Northern Prawn Fishery (NPF). Turtle Exclusion Devices, which are mandatory, have been shown to reduce the catch of large rays by 94% (although they are not as effective at excluding smaller individuals). Estimates of fishing mortality rates for wedgefishes in the NPF are below those that would lead to significant population declines. It is retained in some

Species		Details of protection measures or managed fisheries for each species	Details of regulations currently being proposed or implemented for each species	Details of conservation measures for each species	Comments, including sources of information, resources and links
Scientific name	Common name (English)				
		will ensure the fishery is managed in an ecologically sustainable way. https://www.dcceew.gov.au/environment/marine/publications/guidelines-ecologically-sustainable-management-fisheries			New South Wales and Queensland fisheries. International co-operation and conservation instruments will be vital to ensure the species does not become threatened in Australia. ³
<i>Rhynchobatus djiddensis</i>	Whitespotted Wedgefish				
<i>Rhynchobatus laevis</i>	Smoothnose Wedgefish				
<i>Sphyrna lewini</i>	Scalloped Hammerhead Shark	When the species was added to Appendix II in 2014, Australia lodged a reservation to avoid unintended consequences in domestic law that arise automatically upon listing in Appendix II. Australia supports conservation efforts for the species and will continue to cooperate in international efforts. Listed as 'Conservation Dependant' under the EPBC Act. Listed as 'Conservation Dependant' under the EPBC Act. This means that catch is allowed provided it done in accordance with an approved management plan in place under law. The management plan must provide actions necessary to stop the decline of, and support the	Fishery rules - Fisheries Management Act 2003		The Scalloped Hammerhead is a common shark with a wide Australian range (except for southern waters). Outside of Australian waters, it has a wide global tropical and warm-temperate distribution. It is a mobile species, with recent genetic results demonstrating two possible subpopulations (Western Australia; the rest of Australia) with the non-Western Australian subpopulation connected to Papua New Guinea and Indonesia. The species is a bycatch or byproduct of a variety of Australian fisheries, especially juveniles. Analysis of catches in the Queensland Shark Control Program (1964–2004) showed the equivalent of a 99.8% population reduction over three generations

Species		Details of protection measures or managed fisheries for each species	Details of regulations currently being proposed or implemented for each species	Details of conservation measures for each species	Comments, including sources of information, resources and links
Scientific name	Common name (English)				
		recovery of, the species so that its chances of long-term survival in nature are maximised. Currently being reassessed under the EPBC Act for potential up listing to a higher threatened species category.			(72 years). Global trend analysis estimated a population reduction of >80% over the last three generations. International co-operation and conservation instruments will be vital to allow the recovery of the species in Australia. ³
<i>Sphyrna mokarran</i>	Great Hammerhead Shark	When the species was added to Appendix II in 2014, Australia lodged a reservation to avoid unintended consequences in domestic law that arise automatically upon listing in Appendix II. Australia supports conservation efforts for the species and will continue to cooperate in international efforts. All Commonwealth managed fisheries and state based fisheries that have an export component have been assessed against the Guidelines for the ecologically sustainable management of fisheries- edition 2 (under EPBC Act) to determine the extent to which management arrangements will ensure the fishery is managed in an ecologically sustainable way. ⁷	Fishery rules - Fisheries Management Act 2004		The Great Hammerhead is a common shark with a wide Australian range (except for southern waters). Outside of Australian waters, it has a wide global tropical and warm-temperate distribution. It is a mobile species which can be considered one connected population in the Indo-Pacific. The species is a bycatch or byproduct of a variety of Australian fisheries, but in lower numbers than the Scalloped Hammerhead. A global analysis of Great Hammerhead extinction risk status suggested a population reduction of >80% over the last three generations (71 years) for the Indo-Pacific. While data are lacking from Australia, the congeneric and cooccurring Scalloped Hammerhead has undergone severe declines, inferring declines are likely for the Great Hammerhead. International

⁷ <https://www.dcceew.gov.au/environment/marine/publications/guidelines-ecologically-sustainable-management-fisheries>

Species		Details of protection measures or managed fisheries for each species	Details of regulations currently being proposed or implemented for each species	Details of conservation measures for each species	Comments, including sources of information, resources and links
Scientific name	Common name (English)				
					co-operation and conservation instruments will be vital to allow the recovery of the species in Australia. ³
<i>Sphyrna zygaena</i>	Smooth Hammerhead Shark		Fishery rules - Fisheries Management Act 2005		The Smooth Hammerhead is a common shark with a wide southern Australian range. Outside of Australian waters, it has a wide global tropical and temperate distribution. There is no evidence of connectivity between the Atlantic and the Indo-Pacific, but regional connectivity is poorly-known. The species is a bycatch or byproduct of a variety of state-managed fisheries particularly in New South Wales and Western Australia. Analysis of hammerhead catches (comprised mostly of Smooth Hammerhead) in the New South Wales Shark Control Program showed an ~85% decline over the period 1973–2008. This contrasts with stable or increasing catch rates in commercial gillnetting off southwest Western Australia, International co-operation and conservation instruments will likely be vital to ensure the species does not become threatened in Australia. ³
<i>Squalus acanthias</i>	Spiny Dogfish	Under the Sharks MOU, only the Northern Hemisphere populations of Spiny Dogfish are included on Appendix 1.	Fishery rules - Fisheries Management Act 2006		The Whitespotted Spurdog/Spiny Dogfish is a common shark with a wide southern Australian range. Outside of Australian waters, it has

Species		Details of protection measures or managed fisheries for each species	Details of regulations currently being proposed or implemented for each species	Details of conservation measures for each species	Comments, including sources of information, resources and links
Scientific name	Common name (English)				
		All Commonwealth managed fisheries and state based fisheries that have an export component have been assessed against the Guidelines for the ecologically sustainable management of fisheries - edition 2 (under EPBC Act) to determine the extent to which management arrangements will ensure the fishery is managed in an ecologically sustainable way. ⁷			a wide but patchy global boreal and temperate distribution. It is a byproduct of the Commonwealth-managed Southern and Eastern Scalefish and Shark Fishery, where most of the catch has historically been retained. Despite having a wide depth range, locally it primarily occurs in bays and estuaries at depths of <30 m, which provides some refuge from major fishing gears which do not operate close inshore. This habitat does expose it to recreational fishing, for example it is taken in substantial amounts by recreational gillnet in Tasmania. Where the species has been targeted in other regions, it has collapsed in the absence of management. However, it remains abundant in southern Australia, is not suspected to be close to reaching the population reduction threshold. This species is globally threatened; therefore, Australia represents a global refuge. ³
<i>Squatina squatina</i>	Angelshark				

General comments on shark conservation measures in Australia

The Australian Government affords sharks protection through a suite of complementary measures. 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. The plan met Australia's commitment as a member of the United Nations Food and Agriculture Organization, to the International Plan of Action for the Conservation and Management of Sharks (IPOA-Sharks).

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-plan Representative Group (SRG) 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>

The Australian Government Department of the Climate Change, Energy, the Environment and Water works closely with Commonwealth and state fisheries management agencies to ensure that fishing activities do not have an unsustainable impact on sharks. All Commonwealth-managed fisheries and those state fisheries which export product or operate in Commonwealth waters are required to be assessed under the EPBC Act.

In 2021 'The Action Plan for Australian Sharks and Rays 2021' was published, providing a comprehensive risk review of the extinction risk of chondrichthyans in Australian waters. It contains specific actions required to address knowledge gaps, and outlines conservation objectives for each species. It can be accessed at <https://www.nespmarine.edu.au/document/action-plan-australian-sharks-and-rays-2021>

Shark finning is not permitted in Commonwealth managed fisheries. Similar measures are in place to encourage full retention in state and territory managed fisheries. The Australian Government advocates at Regional Fisheries Management Organisations for sustainable management practices for shark fishing, including banning the use of wire traces and the implementation of anti-finning measures such as landing sharks with their fins naturally attached.