

Non-detriment findings for CITESlisted shark and ray species harvested in Australian export fisheries

Requiem sharks (Carcharhinidae), hammerhead sharks (Sphyrnidae), giant guitarfishes (Glaucostegidae), guitarfishes (Rhinobatidae), and wedgefishes (Rhinidae)

Prepared by Australia's CITES Scientific Authority in the Australian Government Department of Climate Change, Energy, the Environment and Water



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Acknowledgement of Country

Our department recognises the First Peoples of this nation and their ongoing connection to culture and country. We acknowledge Aboriginal and Torres Strait Islander Peoples as the Traditional Owners, Custodians and Lore Keepers of the world's oldest living culture and pay respects to their Elders past, and present.

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Summary

The 19th meeting of the Conference of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) was held from 14 to 25 November 2022. Proposals to include all species of hammerhead sharks (Sphyrnidae), guitarfish (Rhinobatidae) and requiem sharks (Carcharhinidae) in CITES Appendix II were adopted. The listings for hammerhead sharks and guitarfish took effect from 23 February 2023. The requiem shark listing was delayed and took effect on 25 November 2023.

The implications of these listings include that:

- a positive CITES non-detriment finding (NDF) must be made by Australia's CITES Scientific Authority (the department) certifying that the harvest of the species will not be detrimental to its survival in the wild
- a CITES export permit issued by Australia's CITES Management Authority under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) is required
- listed species must be sourced from a fishery with an approved Wildlife Trade Operation (WTO) declaration that is current at the time of harvest.

Obligations under CITES are given effect domestically by the EPBC Act. The EPBC Act requires that, *inter alia*, an export permit for a CITES Appendix II listed species may only be issued by the Minster for the Environment and Water, or the Minister's delegate, if satisfied that the export will not be detrimental to, or contribute to trade which is detrimental to, the survival or recovery of the species. This assessment is known as an NDF and underpins the assessment and approval of WTOs for Australian fisheries harvesting CITES Appendix II listed species. WTO approvals are issued in accordance with Part 13A of the EPBC Act and are valid for a maximum term of 3 years.

Australia's CITES Scientific Authority commissioned leading elasmobranch scientists Dr Colin Simpfendorfer and Dr Cassandra Rigby to provide independent expert advice to inform the NDFs for CITES-listed sharks and rays caught in Australian fisheries. The scientific advice used the CITES electronic NDF (e-NDF) portal for sharks and rays to generate a series of species-specific reports. Therse assessments used the best available information on species' range, population structure, and stock status in Australian waters; an analysis of Australian commercial fisheries interacting with the listed species, including an assessment of existing management measures; and consideration of regional and global management measures, threats, stocks, status and harvests. This document is a consolidation of the expert advice and considers 34 CITES-listed shark and ray species including requiem sharks (Carcharhinidae), hammerhead sharks (Sphyrnidae¹), giant guitarfishes (Glaucostegidae), guitarfishes (Rhinobatidae) and wedgefishes (Rhinidae) (Table 1).

¹ The existing NDF for scalloped hammerhead (*Sphyrna lewini*) has not been updated as part of this assessment as the species' listing under the EPBC Act is being reassessed. The existing NDF for this species still applies.

The expert advice found the current management arrangements in place in Australian-managed fisheries mostly meet the requirements that Australia's CITES Scientific Authority must consider in the making of these NDFs. Recommendations for the staged improvement of management arrangements will be considered by Australia's CITES Scientific Authority and incorporated as part of the ongoing fishery assessment and export approval process under the EPBC Act. Australian export fisheries affected by these CITES listings and the species they harvest are listed in Table 2. Table 2 reflects fisheries with export approvals for the listed shark species at the time of publication of this NDF which may change over time if unlisted fisheries begin to export or if currently approved fisheries cease to export. This will be monitored and managed by the Sustainable Fisheries section and will not alter the currency of this NDF.

Table 1 NDF advice for shark and ray species harvested in Australian export fisheries

Species	CITES Appendix II listing date	Recommended NDF status	NDF assessed in this report	Notes
Requiem sharks (Carcharhinidae)				
Silvertip shark (Carcharhinus albimarginatus)	25/11/2023	Positive	Yes	
Bignose shark (Carcharhinus altimus)	25/11/2023	Positive	Yes	
Graceful shark (Carcharhinus amblyrhynchoides)	25/11/2023	Positive	Yes	
Grey reef shark (Carcharhinus amblyrhynchos)	25/11/2023	Positive	Yes	
Pigeye shark (Carcharhinus amboinensis)	25/11/2023	Positive	Yes	
Copper shark (Carcharhinus brachyurus)	25/11/2023	Positive (conditional)	Yes	
Spinner shark (Carcharhinus brevipinna)	25/11/2023	Positive	Yes	
Nervous shark (Carcharhinus cautus)	25/11/2023	Positive	Yes	
Australian blackspot shark (Carcharhinus coatesi)	25/11/2023	Positive	Yes	
Silky shark (Carcharhinus falciformis)	25/11/2023	N/A	No	Protected under the EPBC Act
Creek whaler (Carcharhinus fitzroyensis)	25/11/2023	Positive	Yes	
Galapagos shark (Carcharhinus galapagensis)	25/11/2023	Positive	Yes	
Bull shark (Carcharhinus leucas)	25/11/2023	Positive	Yes	
Common blacktip shark (Carcharhinus limbatus)	25/11/2023	Positive	Yes	

Species	CITES Appendix II listing date	Recommended NDF status	NDF assessed in this report	Notes
Oceanic whitetip shark (Carcharhinus longimanus)	14/09/2014	N/A	No	Protected under the EPBC Act
Hardnose shark (Carcharhinus macloti)	25/11/2023	Positive	Yes	
Blacktip reef shark (Carcharhinus melanopterus)	25/11/2023	Positive	Yes	
Dusky shark (Carcharhinus obscurus)	25/11/2023	Positive	Yes	
Sandbar shark (Carcharhinus plumbeus)	25/11/2023	Positive	Yes	
Spot-tail shark (Carcharhinus sorrah)	25/11/2023	Positive	Yes	
Australian blacktip shark (Carcharhinus tilstoni)	25/11/2023	Positive	Yes	
Northern river shark (Glyphis garricki)	25/11/2023	N/A	N/A	Protected under the EPBC Act
Speartooth shark (Glyphis glyphis)	25/11/2023	N/A	N/A	Protected under the EPBC Act
Sliteye shark (Loxodon macrorhinus)	25/11/2023	Positive	Yes	
Sharptooth lemon shark (Negaprion acutidens)	25/11/2023	Positive	Yes	
Blue shark (<i>Prionace glauca</i>)	25/11/2023	Positive	Yes	
Milk shark (Rhizoprionodon acutus)	25/11/2023	Positive	Yes	
Grey sharpnose shark (Rhizoprionodon oligolinx)	25/11/2023	Positive	Yes	
Australian sharpnose shark (Rhizoprionodon taylori)	25/11/2023	Positive	Yes	
Whitetip reef shark (Trienodon obesus)	25/11/2023	Positive	Yes	
Hammerhead sharks (Sphyrnidae	e)			
Scalloped hammerhead ^a (Sphyrna lewini)	14/09/2014	Positive (conditional)	No	Published NDF available at: DCCEEW 2014
				Conservation dependent listing advice available at: DoE 2018 ^a
Great hammerhead (Sphyrna mokarran)	14/09/2023	Positive (conditional)	Yes	
Smooth hammerhead (Sphyrna zygaena)	14/09/2023	Positive (conditional)	Yes	

Species	CITES Appendix II listing date	Recommended NDF status	NDF assessed in this report	Notes
Winghead shark	23/02/2023	Positive	Yes	
(Eusphyra blochii)		(conditional)		
Giant guitarfishes (Glaucostegid	ae)			
Giant shovelnose ray	26/08/2019	Positive	Yes	
(Glaucostegus typus)				
Guitarfishes (Rhinobatidae)				
Goldeneye shovelnose ray	23/02/2023	Positive	Yes	
(Rhinobatus sainsburyi)				
Wedgefishes (Rhinidae)				
Whitespotted guitarfish/ bottlenose wedgefish	26/08/2019	Positive	Yes	
(Rhynchobatus australiae)				
Eyebrow wedgefish	26/08/2019	Positive	Yes	
(Rhynchobatus palpebratus)				

^aThe EPBC Act listing category for this species is currently being reviewed by Minister for the Environment and Water.

Table 2 WTO-approved fisheries and the CITES-listed shark and ray species typically targeted or retained in each fishery

Fishery	CITES-listed species
Commonwealth Coral Sea Fishery	Silvertip shark (<i>Carcharhinus albmimarginatus</i>), Grey reef shark (<i>C. amblyrhynchos</i>), Bronze whaler (<i>C. brachyurus</i>), Common blacktip shark (<i>C. limbatus</i>), Blacktip reef shark (<i>C. melanopterus</i>), Australian blacktip shark (<i>C. tilstoni</i>) and Whitetip reef shark (<i>Triaenodon obesus</i>)
Commonwealth Eastern Tuna and Billfish Fishery	Grey reef shark (<i>Carcharhinus amblyrhynchos</i>), Bronze whaler (<i>C. brachyurus</i>), Bull shark (<i>C. leucas</i>), Common blacktip shark (<i>C. limbatus</i>), Blacktip reef shark (<i>C. melanopterus</i>), Dusky shark (<i>C. obscurus</i>), Sandbar shark (<i>C. plumbeus</i>), Australian blacktip shark (<i>C. tilstoni</i>), Blue shark (<i>Prionace glauca</i>), Whitetip reef shark (<i>Triaenodon obesus</i>) and Smooth hammerhead (<i>Sphyrna zygaena</i>)
Commonwealth Southern and Eastern Scalefish and Shark Fishery	Silvertip shark (<i>Carcharhinus albmimarginatus</i>), Grey reef shark (<i>C. amblyrhynchos</i>), Bronze whaler (<i>C. brachyurus</i>), Bull shark (<i>C. leucas</i>), Common blacktip shark (<i>C. limbatus</i>), Blacktip reef shark (<i>C. melanopterus</i>), Dusky shark (<i>C. obscurus</i>), Sandbar shark (<i>C. plumbeus</i>), Australian blacktip shark (<i>C. tilstoni</i>), Blue shark (<i>Prionace glauca</i>), Scalloped hammerhead (<i>Sphyrna lewini</i>) and Smooth hammerhead (<i>S. zygaena</i>)
Commonwealth Southern Bluefin Fishery	Blue shark (<i>Prionace glauca</i>)
Commonwealth Western Tuna and Billfish Fishery	Bronze whaler (<i>Carcharhinus brachyurus</i>), Dusky shark (<i>C. obscurus</i>) and Blue shark (<i>Prionace glauca</i>)
New South Wales Ocean Trawl Fishery	Common blacktip shark (<i>Carcharhinus limbatus</i>), Australian blacktip shark (<i>C. tilstoni</i>), Bignose shark (<i>C. altimus</i>), Bronze whaler (<i>C. brachyurus</i>), Spinner shark (<i>C. brevipinna</i>), Bull shark (<i>C. leucas</i>), Dusky shark (<i>C. obscurus</i>), Sandbar shark (<i>C. plumbeus</i>), Sliteye shark (<i>Loxodon macrorhinus</i>), Sicklefin lemon shark/Sharptooth lemon shark (<i>Negaprion acutidens</i>), Blue shark (<i>Prionace glauca</i>), Whitespotted guitarfish/bottlenose wedgefish (<i>Rhynchobatus australiae</i>), Shark ray (<i>Rhina ancylostoma</i>), and Smooth hammerhead (<i>Sphyrna zygaena</i>)
New South Wales Ocean Trap and Line Fishery	Common blacktip shark (<i>Carcharhinus limbatus</i>), Australian blacktip shark (<i>C. tilstoni</i>), Bignose shark (<i>C. altimus</i>), Bronze whaler (<i>C. brachyurus</i>), Spinner shark (<i>C. brevipinna</i>), Bull shark (<i>C. leucas</i>), Dusky shark (<i>C. obscurus</i>), Sandbar shark (<i>C. plumbeus</i>), Sliteye shark

Fishery	CITES-listed species
	(Loxodon macrorhinus), Sicklefin lemon shark/Sharptooth lemon shark (Negaprion acutidens), Blue shark (Prionace glauca), Whitespotted guitarfish/bottlenose wedgefish (Rhynchobatus australiae), Shark ray (Rhina ancylostoma), and Smooth hammerhead (Sphyrna zygaena)
Northern Territory Offshore Net and Line Fishery	Silvertip shark (<i>Carcharhinus albimarginatus</i>), Graceful shark (<i>C. amblyrhynchoides</i>), Grey reef shark (<i>C. amblyrhynchos</i>), Pigeye shark (<i>C. amboinensis</i>), Spinner shark (<i>C. brevipinna</i>), Nervous shark (<i>C. cautus</i>), Creek whaler (<i>C. fitzroyensis</i>), Bull shark (<i>C. leucas</i>), Common blacktip shark (<i>C. limbatus</i>), Blacktip reef shark (<i>C. melanopterus</i>), Dusky shark (<i>C. obscurus</i>), Sandbar shark (<i>C. plumbeus</i>), Spot-tail shark (<i>C. sorrah</i>), Australian blacktip shark (<i>C. tilstoni</i>), Winghead shark (<i>Eusphyra blochii</i>), Sicklefin lemon shark/Sharptooth lemon shark (<i>Negaprion acutidens</i>), Goldeneye shovelnose ray (<i>Rhinobatos sainsburyi</i>), Milk shark (<i>Rhizoprionodon acutus</i>), Grey sharpnose shark (<i>Rhizoprionodon oligolinx</i>), Australian sharpnose shark (<i>Rhizoprionodon taylori</i>), Whitetip reef shark (<i>Triaenodon obesus</i>), Giant shovelnose ray (<i>Glaucostegus typus</i>), Whitespotted guitarfish/bottlenose wedgefish (<i>Rhynchobatus australiae</i>), Eyebrow wedgefish (<i>R. palpebratus</i>), Shark ray (<i>Rhina ancylostoma</i>), Scalloped hammerhead (<i>Sphyrna lewini</i>) and Great hammerhead (<i>S. mokarran</i>)
Northern Territory Coastal Line Fishery	Grey reef shark (<i>Carcharhinus amblyrhynchos</i>), Creek whaler (<i>C. fitzroyensis</i>), Bull shark (<i>C. leucas</i>), Common blacktip shark (<i>C. limbatus</i>), Blacktip reef shark (<i>C. melanopterus</i>), Milk shark (<i>Rhizoprionodon acutus</i>), and Whitetip reef shark (<i>Triaenodon obesus</i>)
Queensland Aquarium Fish Fishery	Silvertip shark (<i>Carcharhinus albimarginatus</i>), Bignose shark (<i>C. altimus</i>), Graceful shark (<i>C. amblyrhynchoides</i>), Grey reef shark (<i>C. amblyrhynchos</i>), Pigeye shark (<i>C. amboinensis</i>), Spinner shark (<i>C. brevipinna</i>), Nervous shark (<i>C. cautus</i>), Australian blackspot shark (<i>C. coatesi</i>), Creek whaler (<i>C. fitzroyensis</i>), Bull shark (<i>C. leucas</i>), Common blacktip shark (<i>C. limbatus</i>), Hardnose shark (<i>C. macloti</i>), Blacktip reef shark (<i>C. melanopterus</i>), Dusky shark (<i>C. obscurus</i>), Sandbar shark (<i>C. plumbeus</i>), Spot-tail shark (<i>C. sorrah</i>), Australian blacktip shark (<i>C. tilstoni</i>), Winghead shark (<i>Eusphyra blochii</i>), Sicklefin lemon shark/Sharptooth lemon shark (<i>Negaprion acutidens</i>), Milk shark (<i>Rhizoprionodon acutus</i>), Australian sharpnose shark (<i>R. taylori</i>), Whitetip reef shark (<i>Triaenodon obesus</i>), Giant shovelnose ray (<i>Glaucostegus typus</i>), Whitespotted guitarfish/bottlenose wedgefish (<i>Rhynchobatus australiae</i>), Eyebrow wedgefish (<i>R. palpebratus</i>), Shark ray (<i>Rhina ancylostoma</i>), Scalloped hammerhead (<i>S. phyrna lewini</i>), Great hammerhead (<i>S. mokarran</i>), and Smooth hammerhead (<i>S. zygaena</i>)
South Australian Lakes and Coorong Fishery	Bronze whaler (Carcharhinus brachyurus)
Western Australian Temperate Demersal Gillnet and Demersal Longline Fisheries	Bronze whaler (<i>Carcharhinus brachyurus</i>), Spinner shark (<i>C. brevipinna</i>), Bull shark (<i>C. leucas</i>), Common blacktip shark (<i>C. limbatus</i>), Australian blacktip shark (<i>C. tilstoni</i>), Dusky shark (<i>C. obscurus</i>), Sandbar shark (<i>C. plumbeus</i>), Sicklefin lemon shark/Sharptooth lemon shark (<i>Negaprion acutidens</i>), Blue shark (<i>Prionace glauca</i>), Scalloped hammerhead (<i>Sphyrna lewini</i>), Great hammerhead (<i>S. mokarran</i>), and Smooth hammerhead (<i>S. zygaena</i>)

Introduction

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is an international agreement between governments that aims to ensure international trade in specimens of wild animals and plants does not threaten the survival of the species. Australia is one of 184 Parties to the Convention.

Appendix I, II and III to CITES are lists of species that are afforded different levels or types of protection from over-exploitation (<u>CITES</u> 2023). Appendix II listed species are not necessarily threatened with extinction now but may become so unless trade is controlled (<u>CITES</u> 2023). Appendix II also includes 'look-alike species', that is, species whose specimens in trade look like those of species listed for conservation reasons.

Before a species listed in Appendix II may be exported, the CITES Scientific Authority of the State of export must determine that the proposed export will not be detrimental to the survival of the species. This is called a non-detriment finding (NDF) and is typically based on assessment of status, population structure, threats, management measures, and national and international harvests and trends. A positive NDF for harvest and export of a species can be made when the sum of all harvests of the species is sustainable, meaning that it does not result in a change to the population in a way that might be expected to lead to species' decline.

The Department of Climate Change, Energy, the Environment and Water (the department) has primary responsibility for the implementation of Australia's requirements for international trade of species listed under CITES. These requirements are given effect through the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The department acts as Australia's CITES Management Authority and CITES Scientific Authority. As the CITES Management Authority, the department is responsible for implementing the Convention by granting import and export permits on behalf of Australia, as well as engaging with the CITES Secretariat and other countries about CITES matters. The CITES Scientific Authority provides technical and scientific advice to its Management Authority. In particular, the CITES Scientific Authority determines whether the export of a CITES listed species will be detrimental to the survival of the species in the wild.

Within the department, the role of the CITES Scientific Authority for marine species is enacted by the Sustainable Fisheries section. This section is responsible for assessing the environmental performance of fisheries managed under Commonwealth legislation and state export fisheries in accordance with the EPBC Act. Part 13A of the EPBC Act allows for export from a fishery with an approved Wildlife Trade Operation (WTO).

A WTO can only be approved by the Minister for the Environment and Water or their delegate. These instruments specify that the declaration only applies during a particular period (up to 3 years) or when certain circumstances apply or certain conditions complied with. In effect, WTO approvals are the instruments to which NDFs are applied in Australian fisheries.

To support the development of NDFs for CITES-listed shark and ray species, the department commissioned independent scientific advice. The reports prepared by Dr Colin Simpfendorfer and Dr

Cassandra Rigby follow the CITES electronic NDF portal for sharks and rays. This tool is guided by the requirements outlined in <u>CITES Resolution Conf. 16.7 Non-detriment findings</u>. The expert findings and the Australian Scientific Authority's NDFs are summarised below.

Important information links

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

- Learn more about CITES
- The 19th Conference of the Parties to CITES (CoP19) DCCEEW
- About the CITES electronic Non-Detriment Finding (e-NDF) for sharks and rays (cites-endf.org)
- CITES Resolution Conf. 16.7 Non-detriment findings (<u>Rev. CoP17</u>)

Scientific advice

 The independent 'Scientific advice to inform the non-detriment findings for CITES listed sharks and rays harvested in Australian export fisheries' reports (Simpfendorfer and Rigby 2023) are available at: Wildlife trade resources - DCCEEW

Legislation

Environment Protection and Biodiversity Conservation Act 1999 (legislation.gov.au)

Fishery information - Environmental assessments under the EBPC Act

 Assessments and export approvals for fisheries undertaken in accordance with the EPBC Act are viewable by jurisdiction at: <u>Fisheries and the environment - DCCEEW</u>

1 Management actions in response to key NDF findings

The scientific advice for most species found that while current harvest levels are sustainable and therefore support positive NDFs (see Table 1), recommendations should be considered to improve sustainability in the event that harvest levels increase in the future. Across all species assessed, recommendations were focused on the following key areas:

- Fisheries monitoring: Improvements should be made to species-specific data collection and reporting for catches (including discards) of CITES-listed sharks and rays. Implementation of species-specific data collection and reporting will allow for improved monitoring of total mortality and trends. Changes in catch from year to year or over the effective duration of NDFs (typically 3 or 5 years) could be used as triggers to consider or implement further management actions.
- **Trade:** CITES-listed shark and ray species must only be exported from WTO-approved fisheries, and international trade volumes should be monitored.

For a small number of species 'Positive (conditional)' NDFs were recommended, meaning that additional species-specific recommendations should be considered to further support the positive NDF. Species-specific recommendations will be considered when the relevant fisheries' WTO is next reassessed by the department. These WTO re-assessments will occur within the next 3 years. Fisheries that do not currently have WTO approval or do not export any of the listed shark and ray species have not been considered in this assessment.

The CITES Scientific Authority will continue to communicate with fisheries management agencies and industry in implementing any recommendations for future management arrangements for relevant fisheries and species.

The timeframe for the implementation of recommendations is between 1-5 years, with the expert advice recommending an effective duration for NDFs of 3 years for higher risk species or 5 years for lower risk species.

1.1 Fisheries monitoring (species-specific data collection and reporting)

Since many shark and ray species are susceptible to overfishing due to their biological characteristics, ongoing monitoring of catches and population trends are required. The expert advice recommended that improved data on total mortality (catches and discards) at a species level will enable the monitoring of catch levels at a national or stock level to ensure catches stay within sustainable bounds.

As a result of this recommendation, the department has negotiated WTO conditions for each affected fishery that require species-specific data collection and reporting for CITES-listed sharks and rays. Where possible, this includes a requirement to collect information on both catches and discards. However, collection of information on discards can be challenging, particularly in fisheries in which sharks and rays may be cut from the line while still in the water or may be released when

brought over or through gears. In these situations, the department has sought assurances from management agencies that estimates of discards (and thus total mortality) could be made using other means (for example, extrapolation of studies on catch/discard composition and/or information on post capture mortality). In general, the ability to identify catches of sharks and rays to a species level is high and all fisheries have identification guides in place. Australia also has 'fins naturally attached' conditions in place in all jurisdictions, meaning that sharks must be landed with the fins attached to the carcass to aid in species identification on landing.

WTO conditions also include a requirement to ensure information on total catches of CITES-listed sharks and rays is reported annually to the department. If catches or total mortality increase substantially, this would trigger the department to investigate the reasons for the increase and determine whether any management intervention, for example via updating the NDF or WTO, was required.

1.2 Monitoring volume and characteristics of domestic and international trade

The expert advice recommended that domestic and international trade should be monitored using CITES permits for any trade in products (fins and meat) from these species. Exports could be compared to catches reported from fisheries to ensure export levels do not exceed reported catch levels. The department will routinely analyse data on trade in shark and ray products and take management action (e.g. updating NDFs or WTOs) where required.

2 Requiem sharks (Carcharhinidae)

2.1 Silvertip shark (Carcharhinus albimarginatus)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Least Concern	IUCN Red List global assessment	Vulnerable
National stock assessment sta	tus		Sustainable
Approved export fisheries Commonwealth Coral Sea Fishery, Commonwealth Southern and Eastern Scalefis Shark Fishery, Northern Territory Offshore Net and Line Fishery, Queensland Aqu Fish Fishery			

Silvertip shark (*Carcharhinus albimarginatus*) is a coral reef-associated species that occurs throughout tropical Australia in coastal and offshore waters. It is mostly taken by commercial, charter and recreational line fishing on and around coral reefs. All are relatively minor catches in these fisheries. This species has been assessed as Least Concern in national Red List assessments and as Sustainable in the Shark and Ray Report Card (Status of Australian Fish Stocks aligned assessment) to be published in 2023. Export is possible without conditions provided that catch levels remain at about their current levels.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for Coral Reef Carcharhinidae species' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation	concern		
Intrinsic vulnerability			Medium
Conservation concern			Medium
Trade pressures			Management
Legal trade	Low risk	Medium confidence	Effective
Illegal trade	Low risk	High confidence	N/A
Fishing pressures			
Fishing mortality (retained catch)	Low risk	High confidence	N/A
Discard mortality	Medium risk	Medium confidence	Effective
Size/age/sex selectivity	Medium risk	High confidence	Effective
Illegal, unreported and unregulated fishing	Low risk	Medium confidence	Effective

2.2 Bignose shark (Carcharhinus altimus)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Least Concern	IUCN Red List global assessment	Near Threatened
National stock assessment stat	us		Sustainable
Approved export fisheries New South Wales Ocean Trawl Fishery, New South Wales Oce Queensland Aquarium Fish Fishery			cean Trap and Line Fishery,

Bignose shark (*Carcharhinus altimus*) is incidentally caught commercially in mainly gillnet fisheries and to a lesser extent line and trawl fisheries. Catches of this species are low, they are minor components of the fisheries, and they have significant refuge from fishing pressure across their ranges where fishing effort is low or there is no fishing, and also within marine parks. This species is assessed within Australia as Sustainable through national assessments aligned to the Status of Australian Fish Stocks process (<u>FRDC</u> 2019). This is supported by the national Red List assessment of this species as Least Concern. Management measures are effective at mitigating risks to this species in Australian waters. Export of this species from Australian waters is considered to be non-detrimental to the survival of the species.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for large coast Carcharhinidae species' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation of	oncern		
Intrinsic vulnerability			Medium
Conservation concern			Low
Trade pressures			Management
Legal trade	Low risk	Medium confidence	Effective
Illegal trade	Low risk	High confidence	N/A
Fishing pressures			
Fishing mortality (retained catch)	Low risk	High confidence	N/A
Discard mortality	Medium risk	Medium confidence	Effective
Size/age/sex selectivity	Medium risk	Low confidence	Effective
Illegal, unreported and unregulated fishing	Low risk	High confidence	N/A

2.3 Graceful shark (Carcharhinus amblyrhynchoides)

Summary

Non-Detriment Finding	Positive		
IUCN Red List national assessment	Least Concern	IUCN Red List global assessment	Vulnerable
National stock assessment st	atus		Sustainable
Approved export fisheries	Northern Territory Of	ffshore Net and Line Fishery, Queensland	d Aquarium Fish Fishery

Graceful shark (*Carcharhinus* amblyrhynchoides) occurs across tropical Australia and is assessed within Australia as Sustainable through a national assessment aligned to the Status of Australian Fish Stocks process. This is supported by the national Red List assessment of this species as Least Concern. The species is targeted and incidentally caught in mainly gillnet fisheries, to a lesser extent in longline fisheries, and with negligible catches in trawl fisheries. The species is caught in low numbers with a suspected stable population, the fisheries in which the species is taken are well managed and low effort, and the species has significant refuge from fishing pressure across parts of it range where there is no fishing. Management measures are effective at mitigating risks to the species in Australian waters. Export of this species from Australian waters is considered to be non-detrimental to the survival of the species.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for graceful sharks (*Carcharhinus amblyrhynchoides*) (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation	concern		
Intrinsic vulnerability			Medium
Conservation concern			Low
Trade pressures			Management
Legal trade	Low risk	High confidence	Effective
Illegal trade	Low risk	High confidence	Effective
Fishing pressures			
Fishing mortality (retained catch)	Low risk	High confidence	Effective
Discard mortality	Medium risk	Low confidence	Effective
Size/age/sex selectivity	Medium risk	Medium confidence	Effective
Illegal, unreported and unregulated fishing	Low risk	High confidence	Effective

2.4 Grey reef shark (Carcharhinus amblyrhynchos)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Near Threatened	IUCN Red List global assessment	Endangered
National stock assessment sta	tus		Sustainable
Approved export fisheries	Commonwealth Southe	Sea Fishery, Commonwealth Eastern To rn and Eastern Scalefish and Shark Fish e Fishery, Northern Territory Coastal Li	ery, Northern Territory

Grey reef shark (*Carcharhinus amblyrhynchos*) occurs throughout tropical Australia in coastal and offshore waters. The species is mostly taken by commercial, charter and recreational line fishing on and around coral reefs and make up relatively minor catches in these fisheries. This species is assessed as Near Threatened in the national IUCN Red List assessment and Sustainable through a national assessment aligned to the Status of Australian Fish Stocks process (<u>FRDC</u> 2019). Export is possible without conditions provided that catch levels remain at about their current levels.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for coral reef Carcharhinidae species' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation of	oncern		
Intrinsic vulnerability			Medium
Conservation concern			Medium
Trade pressures			Management
Legal trade	Low risk	Medium confidence	Effective
Illegal trade	Low risk	High confidence	N/A
Fishing pressures			
Fishing mortality (retained catch)	Low risk	High confidence	N/A
Discard mortality	Medium risk	Medium confidence	Effective
Size/age/sex selectivity	Medium risk	High confidence	Effective
Illegal, unreported and unregulated fishing	Low risk	Medium confidence	Effective

2.5 Pigeye shark (Carcharhinus amboinensis)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Least Concern	IUCN Red List global assessment	Vulnerable
National stock assessment sta	tus		Sustainable
Approved export fisheries	Northern Territory Of	ffshore Net and Line Fishery, Queenslan	d Aquarium Fish Fishery

Pigeye shark (*Carcharhinus amboinensis*) occurs throughout tropical Australia. It is taken mostly in commercial gillnet and longline fisheries, and in recreational fisheries. It is a minor catch of these fisheries. This species is assessed as Least Concern in the national IUCN Red List assessment and Sustainable in the Shark and Ray Report Card (Status of Australian Fish Stocks aligned assessment) to be published in 2023. Export is possible without conditions provided that catch levels remain at about their current levels.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for pigeye sharks (*Carcharhinus amboinesis*)' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation concern			
Intrinsic vulnerability			Medium
Conservation concern			Low
Trade pressures			Management
Legal trade	Low risk	Medium confidence	Effective
Illegal trade	Low risk	High confidence	N/A
Fishing pressures			_
Fishing mortality (retained catch)	Low risk	High confidence	N/A
Discard mortality	Low risk	Medium confidence	Effective
Size/age/sex selectivity	Low risk	High confidence	N/A
Illegal, unreported and unregulated fishing	Low risk	Medium confidence	Effective

2.6 Copper shark/Bronze whaler (*Carcharhinus brachyurus*)

Summary

Non-Detriment Finding			Positive (conditional) ^a
IUCN Red List national assessment	Least Concern	IUCN Red List global assessment	Vulnerable
National stock assessment stat	us		Sustainable
Approved export fisheries	Commonwealth Sout Western Tuna and	l Sea Fishery, Commonwealth Easterr hern and Eastern Scalefish and Shar Billfish Fishery, South Australian Lal emperate Demersal Gillnet and Deme	k Fishery, Commonwealth kes and Coorong Fishery,

The Australian stock of Copper shark/Bronze whaler (*Carcharhinus brachyurus*) is currently assessed as Undefined, but with little evidence of significant population decline. The species has a national IUCN Red List assessment of Least Concern. An improved understanding of the status of the species would increase confidence that this species is being fished sustainably. Should catches of larger Copper shark increase then the validity of the non-detriment finding should be revisited.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for copper sharks (*Carcharhinus brachyurus*)' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive (conditional ^a)
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation concer	n		
Intrinsic vulnerability			High
Conservation concern			High
Trade pressures			Management
Legal trade	Low risk	Medium confidence	Effective
Illegal trade			
megar trade	Low risk	Medium confidence	Effective
Fishing pressures	Low risk	Medium confidence	Effective
· · · ·	Low risk	Medium confidence High confidence	Effective N/A
Fishing pressures			
Fishing pressures Fishing mortality (retained catch)	Low risk	High confidence	N/A

^a See the scientific advice for recommended conditions relating to this species, noting that these recommendations will be considered when the relevant fisheries' Wildlife Trade Operation is next assessed by the department.

2.7 Spinner shark (Carcharhinus brevipinna)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Least Concern	IUCN Red List global assessment	Vulnerable
National stock assessment state	tus		Sustainable
Approved export fisheries	Northern Territory Of	ean Trawl Fishery, New South Wales Ocean ffshore Net and Line Fishery, Queensland emperate Demersal Gillnet and Demersal	Aquarium Fish Fishery,

Spinner shark (*Carcharhinus brevipinna*) occurs throughout tropical and warm temperate Australia and is assessed as Sustainable through a national assessment aligned to the Status of Australian Fish Stocks process. This is supported by the national IUCN Red List assessment of this species as Least Concern. The species is targeted and incidentally caught in mainly gillnet fisheries, to a lesser extent in line fisheries, and with negligible catches in trawl fisheries. The majority of the catch is taken in Western Australia in the gillnet sector of the Temperate Demersal Gillnet and Demersal Longline Fishery, which is strictly managed and monitored. Most of the fishing effort on this species across Australia is focused on the juvenile age class with fishing mortality limited for the mature sharks that are then able to contribute to population growth through strong levels of recruitment and maintain sustainability. The species also has significant refuge from fishing pressure across parts of it range where effort is low or there is no fishing. Management measures are effective at mitigating risks to the species in Australian waters. Any export of this species from Australian waters is considered to be non-detrimental to the survival of the species.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for spinner sharks (*Carcharhinus brevipinna*)' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation	concern		
Intrinsic vulnerability			Medium
Conservation concern			Low
Trade pressures			Management
Legal trade	Medium risk	High confidence	Effective
Illegal trade	Low risk	High confidence	Effective
Fishing pressures			
Fishing mortality (retained catch)	Low risk	High confidence	Effective
Discard mortality	Low risk	Medium confidence	Effective
Size/age/sex selectivity	Low risk	High confidence	Effective
Illegal, unreported and unregulated fishing	Low risk	High confidence	Effective

2.8 Nervous shark (Carcharhinus cautus)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Least Concern	IUCN Red List global assessment	Least Concern
National stock assessment sta	tus		Sustainable
Approved export fisheries	Northern Territory Of	ffshore Net and Line Fishery, Queenslar	nd Aquarium Fish Fishery

Nervous shark (*Carcharhinus cautus*) is a medium sized coastal carcharhinid that is assessed within Australia as Sustainable through national assessments aligned to the Status of Australian Fish Stocks process. This is supported by the national IUCN Red List assessment of this species as Least Concern. This species is targeted and incidentally caught commercially in mainly gillnet fisheries and to a lesser extent line and trawl fisheries. This species is mostly caught in Western Australia. Catches of all this species are low and represent minor components of the fisheries. This species has significant refuge from fishing pressure across its range where fishing effort is low or there is no fishing, and also within marine parks. Management measures are effective at mitigating risks to this species in Australian waters. Any export of this species from Australian waters is considered to be non-detrimental to the survival of the species.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for medium coastal Carcharhinidae species' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation	concern		
Intrinsic vulnerability			Medium
Conservation concern			Low
Trade pressures			Management
Legal trade	Low risk	Medium confidence	Effective
Illegal trade	Low risk	High confidence	N/A
Fishing pressures			
Fishing mortality (retained catch)	Low risk	High confidence	N/A
Discard mortality	Medium risk	Medium confidence	Effective
Size/age/sex selectivity	Medium risk	Low confidence	Effective
Illegal, unreported and unregulated fishing	Low risk	High confidence	N/A

2.9 Australian blackspot shark (Carcharhinus coatesi)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Least Concern	IUCN Red List global assessment	Least Concern
National stock assessment st	tatus		Sustainable
Approved export fisheries		Queensland	d Aquarium Fish Fishery

Australian blackspot shark (*Carcharhinus coatesi*) is a medium sized coastal carcharhinid that is assessed within Australia as Sustainable through national assessments aligned to the Status of Australian Fish Stocks process. This is supported by the national IUCN Red List assessment of this species as Least Concern. This species is targeted and incidentally caught commercially in mainly gillnet fisheries and to a lesser extent line and trawl fisheries. This species is mostly caught in Queensland and the Commonwealth Northern Prawn Fishery. Catches of this species are low and represent minor components of the fisheries. This species has significant refuge from fishing pressure across their range where fishing effort is low or there is no fishing, and also within marine parks. Management measures are effective at mitigating risks to this species in Australian waters. Any export of this species from Australian waters is considered to be non-detrimental to the survival of the species.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for medium coastal Carcharhinidae species' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation c	oncern		
Intrinsic vulnerability			Medium
Conservation concern			Low
Trade pressures			Management
Legal trade	Low risk	Medium confidence	Effective
Illegal trade	Low risk	High confidence	N/A
Fishing pressures			
Fishing mortality (retained catch)	Low risk	High confidence	N/A
Discard mortality	Medium risk	Medium confidence	Effective
Size/age/sex selectivity	Medium risk	Low confidence	Effective
Illegal, unreported and unregulated fishing	Low risk	High confidence	N/A

2.10 Creek whaler (Carcharhinus fitzroyensis)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Least Concern	IUCN Red List global assessment	Least Concern
National stock assessment statu	ıs		Sustainable
Approved export fisheries	Northern Territory Of Fishery, Queensland A	fshore Net and Line Fishery, North quarium Fish Fishery	ern Territory Coastal Line

The Creek whaler (*Carcharhinus fitzroyensis*) occurs throughout tropical Australia in coastal waters. It is taken mostly in commercial gillnet, longline and trawl fisheries, and in recreational fisheries. It is a minor catch of these fisheries and it is assessed nationally as Least Concern (IUCN Red List national status) and Sustainable (Status of Australian Fish Stocks aligned assessment). Export is possible without conditions provided that catch levels remain at about their current levels.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for creek whaler sharks (*Carcharhinus fitzroyensis*)' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation	concern		_
Intrinsic vulnerability			Medium
Conservation concern			Low
Trade pressures			Management
Legal trade	Medium risk	Medium confidence	Effective
Illegal trade	Low risk	High confidence	N/A
Fishing pressures			
Fishing mortality (retained catch)	Low risk	High confidence	N/A
Discard mortality	High risk	N/A	Effective
Size/age/sex selectivity	Medium risk	High confidence	Effective
Illegal, unreported and unregulated fishing	Low risk	Medium confidence	Effective

2.11 Galapagos shark (Carcharhinus galapagensis)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Least Concern	IUCN Red List global assessment	Least Concern
National stock assessment s	tatus		Sustainable
Approved export fisheries			Null

Galapagos shark (*Carcharhinus galapagensis*) is a coral reef associated species that occurs throughout tropical Australia in coastal and offshore waters. It is mostly taken by commercial, charter and recreational line fishing on and around coral reefs. All are relatively minor catches in these fisheries. This species has been assessed as Least Concern in national IUCN Red List assessments. This species is assessed as Sustainable in the Shark and Ray Report Card (Status of Australian Fish Stocks aligned assessment) to be published in 2023. Export is possible without conditions provided that catch levels remain at about their current levels. Export of this species from Australian waters is considered to be non-detrimental to the survival of the species.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for Coral Reef Carcharhinidae species' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation of	concern		
Intrinsic vulnerability			Medium
Conservation concern			Medium
Trade pressures			Management
Legal trade	Low risk	Medium confidence	Effective
Illegal trade	Low risk	High confidence	N/A
Fishing pressures			_
Fishing mortality (retained catch)	Low risk	High confidence	N/A
Discard mortality	Medium risk	Medium confidence	Effective
Size/age/sex selectivity	Medium risk	High confidence	Effective
Illegal, unreported and unregulated fishing	Low risk	Medium confidence	Effective

2.12 Bull shark (Carcharhinus leucas)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Least Concern	IUCN Red List global assessment	Least Concern
National stock assessment statu	is		Sustainable
Approved export fisheries	Eastern Scalefish a New South Wal Fishery, Northern ⁻	Ith Eastern Tuna and Billfish Fishery, Comi and Shark Fishery, New South Wales Ocea es Ocean Trawl Fishery, Northern Territor Territory Coastal Line Fishery, Queensland lian Temperate Demersal Gillnet and Dem	n Trap and Line Fishery, y Offshore Net and Line I Aquarium Fish Fishery,

Bull shark (*Carcharhinus leucas*) occurs throughout tropical and subtropical Australia. It is taken mostly in commercial gillnet and longline fisheries, in shark control programs in New South Wales and Queensland, and in recreational fisheries. It is a minor catch of these fisheries and it is assessed nationally as Least Concern (IUCN Red List national status) and Sustainable (Status of Australian Fish Stocks aligned assessment). Export is possible without conditions provided that catch levels remain at about their current levels.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for *Carcharhinus leucas*' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Some doubt
Intrinsic biological vulnerability and conservation concern			
Intrinsic vulnerability			High
Conservation concern			Medium
Trade pressures			Management
Legal trade	Low risk	Medium confidence	Effective
Illegal trade	Low risk	High confidence	N/A
Fishing pressures			
Fishing mortality (retained catch)	Low risk	High confidence	N/A
Discard mortality	Low risk	Medium confidence	Effective
Size/age/sex selectivity	High risk	Low confidence	Effective
Illegal, unreported and unregulated fishing	Low risk	Medium confidence	Effective

2.13 Common blacktip shark (Carcharhinus limbatus)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Least Concern	IUCN Red List global assessment	Vulnerable
National stock assessment stat	us		Sustainable
Approved export fisheries	Commonwealth Sou Ocean Trawl I Territory Offsh	ral Sea Fishery, Commonwealth Eastern Tu Ithern and Eastern Scalefish and Shark Fish Fishery, New South Wales Ocean Trap and ore Net and Line Fishery, Northern Territor um Fish Fishery, Western Australian Temp and Den	nery, New South Wales Line Fishery, Northern ry Coastal Line Fishery,

Common blacktip shark (*Carcharhinus limbatus*) occurs throughout tropical and warm temperate Australia and has three biological stocks; an eastern stock in Queensland and New South Wales, a Gulf of Carpentaria stock, and a western stock ranging from western Northern Territory to northern Western Australia. The eastern and western stocks are assessed as Sustainable through stock assessments that indicate the current biomass is 68% and 53% of unfished levels, respectively, and that catches are well below maximum sustainable yield. The Gulf of Carpentaria stock status is undefined as catch trends are unreliable. The species is common and is targeted and incidentally caught commercially in mainly gillnet fisheries and to a lesser extent in line fisheries in the Northern Territory and Queensland; there is no current commercial catch in Western Australia. The species has refuge from fishing pressure across its range where effort is low or there is no fishing, and also within marine parks. Management measures are effective at mitigating risks to the species in Australian waters. Any export of the Common blacktip shark from Australian waters is considered to be non-detrimental to the survival of the species.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for *Carcharhinus limbatus*' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation concer	n		
Intrinsic vulnerability			Medium
Conservation concern			Low
Trade pressures			Management
Legal trade	Low risk	Medium confidence	Effective
Illegal trade	Low risk	High confidence	Effective
Fishing pressures			
Fishing mortality (retained catch)	Low risk	High confidence	Effective

Non-Detriment Finding			Positive
Discard mortality	Low risk	Medium confidence	Effective
Size/age/sex selectivity	Medium risk	Medium confidence	Effective
Illegal, unreported and unregulated fishing	Medium risk	Medium confidence	Effective

2.14 Hardnose shark (Carcharhinus macloti)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Least Concern	IUCN Red List global assessment	Near Threatened
National stock assessment s	tatus		Sustainable
Approved export fisheries		Queensland Aquarium Fish Fishery	

Hardnose shark (*Carcharhinus macloti*) is a medium sized coastal carcharhinid that is assessed within Australia as Sustainable through national assessments aligned to the Status of Australian Fish Stocks process. This is supported by the national Red List assessment of this species as Least Concern. This species is targeted and incidentally caught commercially in mainly gillnet fisheries and to a lesser extent line and trawl fisheries. This species is mostly caught in Queensland. Catches of this species are low and represent minor components of the fisheries. This species has significant refuge from fishing pressure across their range where fishing effort is low or there is no fishing, and also within marine parks. Management measures are effective at mitigating risks to this species in Australian waters. Any export of this species from Australian waters is considered to be non-detrimental to the survival of the species.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for medium coastal Carcharhinidae' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation of	oncern		
Intrinsic vulnerability			Medium
Conservation concern			Low
Trade pressures			Management
Legal trade	Low risk	Medium confidence	Effective
Illegal trade	Low risk	High confidence	N/A
Fishing pressures			
Fishing mortality (retained catch)	Low risk	High confidence	N/A
Discard mortality	Medium risk	Medium confidence	Effective
Size/age/sex selectivity	Medium risk	Low confidence	Effective
Illegal, unreported and unregulated fishing	Low risk	High confidence	N/A

2.15 Blacktip reef shark (Carcharhinus melanopterus)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Least Concern	IUCN Red List global assessment	Vulnerable
National stock assessment stat	us		Sustainable
Approved export fisheries	Commonwealth Sout	al Sea Fishery, Commonwealth Eastern T hern and Eastern Scalefish and Shark Fish ore Net and Line Fishery, Northern Territo Queensland	nery, Northern Territory

Blacktip reef shark (*Carcharhinus melanopterus*) occurs throughout tropical Australia and is assessed as Sustainable through a national assessment aligned to the Status of Australian Fish Stocks process. This is supported by the national Red List assessment of this species as Least Concern. The species is targeted and incidentally caught commercially in mainly gillnet fisheries and to a lesser extent in line fisheries, and is also taken in recreational line fisheries. Most of the catch is taken in Queensland and Western Australia and are low catches and minor components of the fisheries. The species has significant refuge from fishing pressure across its range where effort is low or there is no fishing, and also within marine parks. Management measures are effective at mitigating risks to the species in Australian waters. Any export of this species from Australian waters is considered to be non-detrimental to the survival of the species.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for *Carcharhinus melanopterus*' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation of	oncern		
Intrinsic vulnerability			Medium
Conservation concern			Low
Trade pressures			Management
Legal trade	Medium risk	High confidence	Effective
Illegal trade	Low risk	High confidence	Effective
Fishing pressures			
Fishing mortality (retained catch)	Low risk	High confidence	Effective
Discard mortality	Low risk	Medium confidence	Effective
Size/age/sex selectivity	Low risk	High confidence	Effective
Illegal, unreported and unregulated fishing	Medium risk	Medium confidence	Effective

2.16 Dusky shark (Carcharhinus obscurus)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Near Threatened	IUCN Red List global assessment	Endangered
National stock assessment status			Recovering (western stock), Sustainable (eastern stock)
Approved export fisheries	Eastern Scalefish and S Wales Ocean Trawl Fisher Territory Offshore Net an	ern Tuna and Billfish Fishery, Comm Shark Fishery, Western Tuna and Bil ry, New South Wales Ocean Trap an Id Line Fishery, Queensland Aquariu emperate Demersal Gillnet and Den	lfish Fishery, New South d Line Fishery, Northern m Fish Fishery, Western

There are two stocks of Dusky shark (*Carcharhinus obscurus*) in Australian waters - west coast and east coast. The east coast stock is currently lightly fished and assessed as sustainable. The west coast stock is targeted by the Western Australian Temperate Gillnet and Demersal Longline Fishery in the southern half of the state. The western stock is assessed to be recovering after historical overfishing, and is considered to be adequately managed to enable recovery. With no current concerns about the status of the stocks the export of Dusky shark products from Australia meets the requirement that the export of Appendix II listed species not be detrimental to the population. Should catches of larger Dusky sharks increase then the status of the stocks should be revisited.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for *Carcharhinus obscurus*' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation c	oncern		
Intrinsic vulnerability			High
Conservation concern			Medium
Trade pressures			Management
Legal trade	Low risk	Medium confidence	Effective
Illegal trade	Low risk	Medium confidence	Effective
Fishing pressures			
Fishing mortality (retained catch)	Low risk	High confidence	N/A
Discard mortality	Low risk	Low confidence	N/A
Size/age/sex selectivity	Low risk	High confidence	N/A
Illegal, unreported and unregulated fishing	Medium risk	Medium confidence	Effective

2.17 Sandbar shark (Carcharhinus plumbeus)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Near Threatened	IUCN Red List global assessment	Endangered
National stock assessment status			Recovering (western stock), Sustainable (eastern stock)
Approved export fisheries	Eastern Scalefish ar South Wales Ocean Tra	istern Tuna and Billfish Fishery, Comm nd Shark Fishery, New South Wales O ap and Line Fishery, Northern Territo uarium Fish Fishery, Western Australi Gillnet and Der	cean Trawl Fishery, New ry Offshore Net and Line

There are two stocks of Sandbar shark (*Carcharhinus plumbeus*) in Australian waters - west coast and east coast. The east coast stock is currently lightly fished and assessed as sustainable. The west coast stock is a byproduct species taken by the Western Australian Temperate Gillnet and Demersal Longline Fishery in the southern half of the state. The western stock is assessed to be recovering after historical overfishing and is considered to be adequately managed to enable recovery. With no current concerns about the status of the stocks, the export of Sandbar shark products from Australia meets the requirement that the export of Appendix II listed species not be detrimental to the population. Should catches of Sandbar Sharks increase substantially then the status of the stocks should be revisited.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for *Carcharhinus plumbeus*' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation concern			
Intrinsic vulnerability			Medium
Conservation concern			Medium
Trade pressures			Management
Legal trade	Low risk	Medium confidence	Effective
Illegal trade	Low risk	Medium confidence	Effective
Fishing pressures			_
Fishing mortality (retained catch)	Low risk	High confidence	N/A
Discard mortality	Low risk	High confidence	N/A
Size/age/sex selectivity	Low risk	High confidence	N/A
Illegal, unreported and unregulated fishing	Low risk	Medium confidence	Effective

2.18 Spot-tail shark (Carcharhinus sorrah)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Least Concern	IUCN Red List global assessment	Near Threatened
National stock assessment sta	atus		Sustainable
Approved export fisheries	Northern Territory Of	ffshore Net and Line Fishery, Queensla	and Aquarium Fish Fishery

Spot-tail shark (*Carcharhinus sorrah*) occurs throughout tropical Australia and is assessed within Australia as Sustainable through a stock assessment that indicates the current biomass is 91% of unfished levels. The species is common and among the most productive of sharks with fast growth rates in the early years, early maturity, and moderate fecundity. It is targeted and incidentally caught commercially in mainly gillnet fisheries and to a lesser extent in line fisheries in the Northern Territory and Queensland; there is no current commercial catch in Western Australia. The species also has refuge from fishing pressure across its range where effort is low or there is no fishing, and also within marine parks. Management measures are effective at mitigating risks to the species in Australian waters. With no concerns about the status of the stock, any export of this species from Australian waters is considered to be non-detrimental to the survival of the species.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for *Carcharhinus sorrah*' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation co	oncern		
Intrinsic vulnerability			Medium
Conservation concern			Low
Trade pressures			Management
Legal trade	Medium risk	Low confidence	Effective
Illegal trade	Low risk	Low confidence	Effective
Fishing pressures			
Fishing mortality (retained catch)	Low risk	High confidence	Effective
Discard mortality	Low risk	Medium confidence	Effective
Size/age/sex selectivity	Low risk	High confidence	Effective
Illegal, unreported and unregulated fishing	Medium risk	Medium confidence	Effective

2.19 Australian blacktip shark (Carcharhinus tilstoni)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Least Concern (endemic to Australia)	IUCN Red List global assessment	Least Concern
National stock assessment status			Sustainable (north Western Australia stock), Sustainable (east coast stock), Undefined (Gulf of Carpentaria stock)
Approved export fisheries	Commonwealth Southern a Ocean Trawl Fishery, Nev Territory Offshore Net and	Fishery, Commonwealth Eastern T and Eastern Scalefish and Shark Fi: v South Wales Ocean and Trap an Line Fishery, Queensland Aquariu nperate Demersal Gillnet and Den	shery, New South Wales d Line Fishery, Northern m Fish Fishery, Western

Australian blacktip shark (*Carcharhinus tilstoni*) occurs across tropical and eastern temperate Australia and has two biological stocks; a western stock ranging from western Northern Territory to northern Western Australia that is assessed as Sustainable through a stock assessment that indicates the current biomass is 96% of unfished levels; and an eastern stock occurring from the Gulf of Carpentaria to the east coast of Queensland. Stock assessment of the eastern stock is at the management level with the East Coast stock assessed as sustainable as catches are well below maximum sustainable yield, and the Gulf of Carpentaria stock undefined as catch trends are unreliable. The species is common and has moderate productivity with relatively early maturity and moderate fecundity. It is targeted and incidentally caught commercially in mainly gillnet fisheries and to a lesser extent in line fisheries in the Northern Territory and Queensland; there is no current commercial catch in Western Australia. The species has refuge from fishing pressure across its range where effort is low or there is no fishing, and also occurs within marine parks. Management measures are effective at mitigating risks to the species in Australian waters. Any export of this species from Australian waters is considered to be non-detrimental to the survival of the species.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for *Carcharhinus tilstoni*' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation concern			
Intrinsic vulnerability			Medium
Conservation concern			Low
Trade pressures			Management
Legal trade	Low risk	Medium confidence	Effective

Non-Detriment Finding			Positive
Illegal trade	Low risk	High confidence	Effective
Fishing pressures			
Fishing mortality (retained catch)	Low risk	High confidence	Effective
Discard mortality	Low risk	Medium confidence	Effective
Size/age/sex selectivity	Low risk	High confidence	Effective
Illegal, unreported and unregulated fishing	Medium risk	Medium confidence	Effective

2.20 Sliteye shark (Loxodon macrorhinus)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Least Concern	IUCN Red List global assessment	Near Threatened
National stock assessment st	atus		Sustainable
Approved export fisheries	New South Wales Ocea	an Trawl Fishery, New South Wales Oc	ean Trap and Line Fishery

Sliteye shark (*Loxodon macrorchinus*) occurs throughout tropical Australia in coastal waters. The species is taken mostly in commercial gillnet, longline and trawl fisheries, and by recreational fisheries and are mostly a minor catch of these fisheries. The species is assessed within Australia as Sustainable through national assessments aligned to the Status of Australian Fish Stocks process. These assessments are supported by the national IUCN Red List assessments that shows this species is Least Concern. Export is possible without conditions provided that catch levels remain at about their current levels.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for small coastal Carcharhinidae' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation	concern		
Intrinsic vulnerability			Low
Conservation concern			Low
Trade pressures			Management
Legal trade	Low risk	Medium confidence	Effective
Illegal trade	Low risk	High confidence	N/A
Fishing pressures			_
Fishing mortality (retained catch)	Low risk	High confidence	N/A
Discard mortality	High risk	N/A	Effective
Size/age/sex selectivity	Medium risk	High confidence	Effective
Illegal, unreported and unregulated fishing	Low risk	High confidence	N/A

2.21 Sharptooth lemon shark (Negaprion acutidens)

Summary

Non-Detriment Finding			Positive	
IUCN Red List national assessment	Least Concern	IUCN Red List global assessment	Endangered	
National stock assessment status			Sustainable	
Approved export fisheries	New South Wales Ocean Trawl Fishery, New South Wales Ocean Trap and Line Fishery, Northern Territory Offshore Net and Line Fishery, Queensland Aquarium Fish Fishery, Western Australian Temperate Demersal Gillnet and Demersal Longline Fisheries			

Sharptooth lemon sharks (*Negaprion acutidens*) are incidentally caught commercially in mainly gillnet fisheries and to a lesser extent line and trawl fisheries. Catches of this species are low, they are minor components of the fisheries, and they have significant refuge from fishing pressure across their ranges where fishing effort is low or there is no fishing, and also within marine parks. This species is assessed within Australia as Sustainable through national assessments aligned to the Status of Australian Fish Stocks processes. These assessments are supported by the national IUCN Red List assessments that shows this species is Least Concern. Management measures are effective at mitigating risks to this species in Australian waters. Any export of this species from Australian waters is considered to be non-detrimental to the survival of the species.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for large coastal Carcharhinidae' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation	concern		
Intrinsic vulnerability			Medium
Conservation concern			Low
Trade pressures			Management
Legal trade	Low risk	Medium confidence	Effective
Illegal trade	Low risk	High confidence	N/A
Fishing pressures			
Fishing mortality (retained catch)	Low risk	High confidence	N/A
Discard mortality	Medium risk	Medium confidence	Effective
Size/age/sex selectivity	Medium risk	Low confidence	Effective
Illegal, unreported and unregulated fishing	Low risk	High confidence	N/A

2.22 Blue shark (Prionace glauca)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Near Threatened	IUCN Red List global assessment	Near Threatened
National stock assessment status			Sustainable
Approved export fisheries	Eastern Scalefish Fishery, Commony	astern Tuna and Billfish Fishery, Con n and Shark Fishery, Commonwealth vealth Southern Bluefin Tuna Fisher South Wales Ocean Trap and Line F Temperate Demersal Gillnet and D	n Western Tune and Billfish y, New South Wales Ocean Fishery, Western Australian

Blue shark (*Prionace glauca*) is highly migratory, occurs throughout Australian waters, and has the highest population growth rate of any pelagic shark species. The population in Australian waters is part of the Indo-West Pacific stock and at a management level, the Southwest Pacific stock. Blue shark is incidentally caught in tuna longline fisheries with a high proportion (95–96%) released by Australian vessels. With such high release levels, an understanding of post-release mortality from Australian vessels is needed. The Southwest Pacific and Indian Ocean stocks are assessed as sustainable through stock assessments with catch-per-unit-effort and biomass increasing in the Southwest Pacific but concerning trends of decreasing biomass and increasing fishing mortality in the Indian Ocean. Australia contributes a minor proportion of Blue shark catch to both stocks with higher effort on the east coast and an estimate of 0.8% of the total Blue shark Southwest Pacific catch (likely an overestimate) and a likely lower proportion on the west coast as effort is very low. Management measures are effective at mitigating risks to the species in Australian waters. Export of Blue shark from Australian vessels and waters is considered to be non-detrimental to the survival of the species. However, the NDF should be reviewed if new guidance arises from the ongoing stock assessments, particularly in the Indian Ocean.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for *Prionace glauca*' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation concern			
Intrinsic vulnerability			Medium
Conservation concern			Medium
Trade pressures			Management
Legal trade	Low risk	Medium confidence	Effective
Illegal trade	Low risk	Medium confidence	Effective
Fishing pressures			

Non-Detriment Finding			Positive
Fishing mortality (retained catch)	Low risk	High confidence	N/A
Discard mortality	Low risk	Medium confidence	Effective
Size/age/sex selectivity	Low risk	Medium confidence	Effective
Illegal, unreported and unregulated fishing	Low risk	Medium confidence	Effective

2.23 Milk shark (Rhizoprionodon acutus)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Least Concern	IUCN Red List global assessment	Vulnerable
National stock assessment stat	us		Sustainable
Approved export fisheries	Northern Territor	y Offshore Net and Line Fishery, Norther Fishery, Queensland	rn Territory Coastal Line d Aquarium Fish Fishery

Milk shark (*Rhizoprionodon acutus*) occurs throughout tropical Australia in coastal waters. The species is taken mostly in commercial gillnet, longline and trawl fisheries, and by recreational fisheries and are mostly a minor catch of these fisheries. The species is assessed within Australia as Sustainable through national assessments aligned to the Status of Australian Fish Stocks process. These assessments are supported by the IUCN national Red List assessments that shows this species is Least Concern. Export is possible without conditions provided that catch levels remain at about their current levels.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for small coastal Carcharhinidae' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation of	oncern		
Intrinsic vulnerability			Low
Conservation concern			Low
Trade pressures			Management
Legal trade	Low risk	Medium confidence	Effective
Illegal trade	Low risk	High confidence	N/A
Fishing pressures			_
Fishing mortality (retained catch)	Low risk	High confidence	N/A
Discard mortality	High risk	N/A	Effective
Size/age/sex selectivity	Medium risk	High confidence	Effective
Illegal, unreported and unregulated fishing	Low risk	High confidence	N/A

2.24 Grey sharpnose shark (Rhizoprionodon oligolinx)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Data Deficient	IUCN Red List global assessment	Near Threatened
National stock assessment s	tatus		Negligible
Approved export fisheries	export fisheries Northern Territory Offshore Net and Line Fish		shore Net and Line Fishery

Grey sharpnose shark (*Rhizoprionodon oligolinx*) occurs throughout tropical Australia in coastal waters. It is extensively caught in coastal gillnet and trawl fisheries throughout its range. This species is a vagrant in Australian waters and rarely if ever interacts with fisheries. The national IUCN Red List assessment lists the species as Data Deficient as it is likely a vagrant in Australian waters. The Australian Shark Report Card listed this species as Negligible, as it does not interact with Australian fisheries in a significant way. Export is possible without conditions provided that catch levels remain at about their current levels.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for small coastal Carcharhinidae' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation of	concern		
Intrinsic vulnerability			Low
Conservation concern			Low
Trade pressures			Management
Legal trade	Low risk	Medium confidence	Effective
Illegal trade	Low risk	High confidence	N/A
Fishing pressures			_
Fishing mortality (retained catch)	Low risk	High confidence	N/A
Discard mortality	High risk	N/A	Effective
Size/age/sex selectivity	Medium risk	High confidence	Effective
Illegal, unreported and unregulated fishing	Low risk	High confidence	N/A

2.25 Australian sharpnose shark (Rhizoprionodon taylori)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Data Deficient	IUCN Red List global assessment	Near Threatened
National stock assessment sta	tus		Negligible
Approved export fisheries	Northern Territory O	ffshore Net and Line Fishery, Queensl	and Aquarium Fish Fishery

Australian sharpnose shark (*Rhizoprionodon taylori*) occurs throughout tropical Australia in coastal waters. They are taken mostly in commercial gillnet, longline and trawl fisheries, and by recreational fisheries and for a minor catch of these fisheries. The species is assessed within Australia as Sustainable through national assessments aligned to the Status of Australian Fish Stocks process. These assessments are supported by the IUCN national Red List assessments that shows this species is Least Concern. Export is possible without conditions provided that catch levels remain at about their current levels.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for small coastal Carcharhinidae' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation of	concern		
Intrinsic vulnerability			Low
Conservation concern			Low
Trade pressures			Management
Legal trade	Low risk	Medium confidence	Effective
Illegal trade	Low risk	High confidence	N/A
Fishing pressures			
Fishing mortality (retained catch)	Low risk	High confidence	N/A
Discard mortality	High risk	N/A	Effective
Size/age/sex selectivity	Medium risk	High confidence	Effective
Illegal, unreported and unregulated fishing	Low risk	High confidence	N/A
-			<u> </u>

2.26 Whitetip reef shark (Triaenodon obesus)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Near Threatened	IUCN Red List global assessment	Vulnerable
National stock assessment sta	tus		Sustainable
Approved export fisheries		Sea Fishery, Commonwealth Easterr Offshore Net and Line Fishery, North Fishery, Queensla	• • • • • • • • • • • • • • • • • • • •

Whitetip reef shark (*Triaenodon obesus*) is a coral reef associated species that occurs throughout tropical Australia in coastal and offshore waters. The species is mostly taken by commercial, charter and recreational line fishing on and around coral reefs. All are relatively minor catches in these fisheries. This species has been assessed as Near Threatened in national IUCN Red List assessments. This species is assessed as Sustainable in the Shark and Ray Report Card (Status of Australian Fish Stocks aligned assessment) to be published in 2023. Export is possible without conditions provided that catch levels remain at about their current levels. Export of this species from Australian waters is considered to be non-detrimental to the survival of the species.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for coral reef shark species' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation	concern		
Intrinsic vulnerability			Medium
Conservation concern			Medium
Trade pressures			Management
Legal trade	Low risk	Medium confidence	Effective
Illegal trade	Low risk	High confidence	N/A
Fishing pressures			_
Fishing mortality (retained catch)	Low risk	High confidence	N/A
Discard mortality	Medium risk	Medium confidence	Effective
Size/age/sex selectivity	Medium risk	High confidence	Effective
Illegal, unreported and unregulated fishing	Low risk	Medium confidence	Effective

3 Hammerhead sharks (Spyhrnidae)

3.1 Great hammerhead (Sphyrna mokarran)

Summary

Non-Detriment Finding			Positive (conditional ^a)
IUCN Red List national assessment	Endangered	IUCN Red List global assessment	Critically Endangered
National stock assessment stat	us		Depleted
Approved export fisheries	•	offshore Net and Line Fishery, Queens lian Temperate Demersal Gillnet and	''

Great hammerhead shark (*Sphyrna mokarran*) has one genetic stock within Australia that is shared with at least Indonesia and Papua New Guinea and possibly also with the wider Indo-Pacific. A Queensland stock assessment concluded catches in Queensland were below maximum sustainable yield. However, there is a degree of uncertainty in the stock assessment results due to poor species-specific reporting and results should be treated with caution, particularly as this conflicts with Queensland Shark Control Program analyses that find hammerhead declines of 66-92%. Great hammerhead catches elsewhere in Australia have declined over the past two decades concurrent with reduced effort and increased management. Total estimated Australian catches are not markedly lower than in 2014 when the Total Allowable Catch (TAC) of 100 t was set and since 2015 have been less than 40 t annually. The implementation of the progressive removal of gillnets and no-take of hammerheads in Queensland will likely further significantly reduce catches. Any export of Great hammerhead shark from Australian waters is currently considered to be non-detrimental to the survival of the species if catches (including discards) remain at current levels or less and there is no significant concurrent increase in effort. If there is any substantial increase in catches (including discards) and effort, the NDF should be revisited.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for *Sphyrna mokarran*' (Rigby 2023) report.

Non-Detriment Finding			Positive (conditional ^a)
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation concern			_
Intrinsic vulnerability			High
Conservation concern			High
Trade pressures			Management
Legal trade	Low risk	Medium confidence	Effective
Illegal trade	Low risk	Medium confidence	Effective

Non-Detriment Finding			Positive (conditional ^a)
Fishing pressures		_	
Fishing mortality (retained catch)	Medium risk	Medium confidence	Effective
Discard mortality	Medium risk	Medium confidence	Effective
Size/age/sex selectivity	Medium risk	Medium confidence	Effective
Illegal, unreported and unregulated fishing	Medium risk	Medium confidence	Effective

^a See the scientific advice for recommended conditions relating to this species, noting that these recommendations will be considered when the relevant fisheries' Wildlife Trade Operation is next assessed by the department.

3.2 Smooth hammerhead (Sphyrna zygaena)

Summary

Non-Detriment Finding			Positive (conditional ^a)
IUCN Red List national assessment	Near Threatened	IUCN Red List global assessment	Vulnerable
National stock assessment status	5		Sustainable
Approved export fisheries	Eastern Scalefish a	astern Tuna and Billfish Fishery, C and Shark Fishery New South Wa ap and Line Fishery, Western Au Gillnet and	les Ocean Trawl Fishery, New

Smooth hammerhead (*Sphyrna zygaena*) is caught mostly in gillnet and longline fisheries in temperate Australia, particularly in Western Australia and New South Wales. The species has a relatively slow life history, increasing its vulnerability to fishing. However, catches are relatively small, and they have been assessed nationally as Near Threatened using IUCN Red List of Threatened Species categories and criteria, and Sustainable using the Status of Australian Fish Stocks categories. Thus, while there may have been some decline in the population, this is likely less than 30%, and while the stock remains at this level the current levels of catch appear to be sustainable. Thus, export of product from this species should be suitable provided that catch levels do not increase substantially.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for *Sphyrna zygaena*' (Rigby 2023) report.

Non-Detriment Finding			Positive (conditional ^a)
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation co	oncern		
Intrinsic vulnerability			High
Conservation concern			Low
Trade pressures			Management
Legal trade	Low risk	Medium confidence	Effective
Illegal trade	Low risk	Medium confidence	Effective
Fishing pressures			
Fishing mortality (retained catch)	Low risk	High confidence	Effective
Discard mortality	High risk	Medium confidence	Effective
Size/age/sex selectivity	Medium risk	Medium confidence	Null
Illegal, unreported and unregulated fishing	Low risk	Medium confidence	Effective

^a See the scientific advice for recommended conditions relating to this species, noting that these recommendations will be considered when the relevant fisheries' Wildlife Trade Operation is next assessed by the department.

3.3 Winghead shark (Eusphyra blochii)

Summary

Non-Detriment Finding			Positive (conditional ^a)
IUCN Red List national assessment	Vulnerable	IUCN Red List global assessment	Endangered
National stock assessment st	atus		Depleting
Approved export fisheries	Northern Territory	Offshore Net and Line Fishery, Queensla	nd Aquarium Fish Fishery

Winghead shark (*Eusphyra blochii*) makes up a small proportion of shark catches in northern Australia. However, it has a medium level of biological vulnerability, and its habitat specialisation (near river mouths) increases its interaction with fisheries over much of its range. Evidence indicates that this has led to decline in the population, but not to levels below those that can sustain long term catches at this time. Export of the species is therefore possible provided that catches are controlled at levels that stop declines.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for *Eusphyra blochii*' (Rigby 2023) report.

Non-Detriment Finding			Positive (conditional ^a)
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation of	oncern		
Intrinsic vulnerability			Medium
Conservation concern			Medium
Trade pressures			Management
Legal trade	Low risk	High confidence	Effective
Illegal trade	Low risk	High confidence	Effective
Fishing pressures			
Fishing mortality (retained catch)	Medium risk	Medium confidence	Effective
Discard mortality	High risk	Medium confidence	Partially effective
Size/age/sex selectivity	Low risk	Medium confidence	Effective
Illegal, unreported and unregulated fishing	Low risk	Medium confidence	Effective

^a See the scientific advice for recommended conditions relating to this species, noting that these recommendations will be considered when the relevant fisheries' Wildlife Trade Operation is next assessed by the department.

4 Giant guitarfishes (Glaucostegidae)

4.1 Giant shovelnose ray (Glaucostegus typus)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Least Concern	IUCN Red List global assessment	Critically Endangered
National stock assessment sta	tus		Sustainable
Approved export fisheries	Northern Territory O	ffshore Net and Line Fishery, Queen:	sland Aquarium Fish Fishery

Giant guitarfish (*Glaucostegus typus*) is assessed within Australia as Sustainable through national assessments aligned to the Status of Australian Fish Stocks process. These assessments are supported by the national IUCN Red List assessments that show these species are Least Concern. The species are incidentally caught in gillnet and trawl fisheries with minimal catches and suspected stable populations as they are common. The fisheries in which the species are taken are well managed, the use of bycatch reduction devices in trawl fisheries has significantly reduced their catches, and the retention of rays is prohibited in some fisheries. Furthermore, the species have significant refuge from fishing pressure across considerable parts of their ranges due to trawl closures and marine parks. Management measures are effective at mitigating risks to the species in Australian waters. Any export of these species from Australian waters is considered to be non-detrimental to the survival of these species.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for wedgefishes and giant guitarfishes' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation of	concern		
Intrinsic vulnerability			Medium
Conservation concern			Medium
Trade pressures			Management
Legal trade	Low risk	High confidence	Effective
Illegal trade	Low risk	High confidence	Effective
Fishing pressures			
Fishing mortality (retained catch)	Low risk	High confidence	Effective
Discard mortality	Medium risk	Low confidence	Effective
Size/age/sex selectivity	Medium risk	Medium Confidence	Effective

Non-detriment findings for CITES-listed shark and ray species harvested in Australian export fisheries

Non-Detriment Finding			Positive
Illegal, unreported and unregulated fishing	Low risk	High confidence	Effective

5 Guitarfishes (Rhinobatidae)

5.1 Goldeneye shovelnose ray (Rhinobatos sainsburyi)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Least Concern	IUCN Red List global assessment	Least Concern
National stock assessment s	tatus		Sustainable
Approved export fisheries		Northern Territory Offsho	ore Net and Line Fishery

Goldeneye shovelnose ray (*Rhinobatos sainsburyi*) is common in Australia and assessed as Least Concern (IUCN) and Sustainable. The fisheries in which it is taken are limited effort and all prohibit the retention of rays. The species has significant refuge from fishing pressure as part of its depth range is beyond the depth of fishing operations, and there is extensive trawl closures and marine parks across its range. Management measures are effective at mitigating risks to the species in Australian waters. It is unlikely but possible that it is caught in a fishery and not yet reported from that fishery in which case, export may occur. Export of this species from Australian waters is considered to be non-detrimental to the survival of the species.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for *Rhinobatos sainsburyi*' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation of	concern		
Intrinsic vulnerability			Low
Conservation concern			Medium
Trade pressures			Management
Legal trade	Low risk	High confidence	Effective
Illegal trade	Low risk	High confidence	Effective
Fishing pressures			
Fishing mortality (retained catch)	Low risk	High confidence	Effective
Discard mortality	Medium risk	Low confidence	Effective
Size/age/sex selectivity	High risk	N/A unknown	Effective
Illegal, unreported and unregulated fishing	Low risk	High confidence	Effective

6 Wedgefishes (Rhinidae)

6.1 Shark ray (Rhina ancylostoma)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Near Threatened	IUCN Red List global assessment	Critically Endangered
National stock assessment sta	tus		Sustainable
Approved export fisheries		es Ocean Trawl Fishery, New South tory Offshore Net and Line Fishery	•

Shark ray (*Rhina ancylostoma*) is assessed within Australia as Sustainable through national assessments aligned to the Status of Australian Fish Stocks process. These assessments are supported by the national IUCN Red List assessments that show these species are Near Threatened. This species is incidentally caught in gillnet and trawl fisheries with minimal catches as it is uncommon. The fisheries in which the species are taken are well managed; the use of bycatch reduction devices in trawl fisheries has significantly reduced their catches, and the retention of rays is prohibited in some fisheries. Furthermore, the species have significant refuge from fishing pressure across considerable parts of their ranges due to trawl closures and marine parks. Management measures are effective at mitigating risks to the species in Australian waters. Any export of these species from Australian waters is considered to be non-detrimental to the survival of these species.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for wedgefishes and giant guitarfishes' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation	n concern		
Intrinsic vulnerability			Medium
Conservation concern			Medium
Trade pressures			Management
Legal trade	Low risk	High confidence	Effective
Illegal trade	Low risk	High confidence	Effective
Fishing pressures			
Fishing mortality (retained catch)	Low risk	High confidence	Effective
Discard mortality	Medium risk	Low confidence	Effective
Size/age/sex selectivity	Medium risk	Medium confidence	Effective

Non-detriment findings for CITES-listed shark and ray species harvested in Australian export fisheries

Non-Detriment Finding			Positive
Illegal, unreported and unregulated fishing	Low risk	High confidence	Effective

6.2 Whitespotted guitarfish/bottlenose wedgefish (Rhynchobatus australiae)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Near Threatened	IUCN Red List global assessment	Critically Endangered
National stock assessment stat	us		Sustainable
Approved export fisheries	New South Wales Ocean Trawl Fishery, New South Wales Ocean Trap and Line Fishery, Northern Territory Offshore Net and Line Fishery, Queensland Aquarium Fish Fishery		

Whitespotted guitarfish/bottlenose wedgefish (*Rynchobatus australiae*) is assessed within Australia as Sustainable through national assessments aligned to the Status of Australian Fish Stocks process. These assessments are supported by the national IUCN Red List assessments that show these species are Near Threatened. The species is incidentally caught in gillnet and trawl fisheries with minimal catches and suspected stable populations as they are common. The fisheries in which the species are taken are well managed; the use of bycatch reduction devices in trawl fisheries has significantly reduced their catches, and the retention of rays is prohibited in some fisheries. Furthermore, the species have significant refuge from fishing pressure across considerable parts of their ranges due to trawl closures and marine parks. Management measures are effective at mitigating risks to the species in Australian waters. Any export of these species from Australian waters is considered to be non-detrimental to the survival of these species.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for wedgefishes and giant guitarfishes' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation	concern		
Intrinsic vulnerability			Medium
Conservation concern			Medium
Trade pressures			Management
Legal trade	Low risk	High confidence	Effective
Illegal trade	Low risk	High confidence	Effective
Fishing pressures			
Fishing mortality (retained catch)	Low risk	High confidence	Effective
Discard mortality	Medium risk	Low confidence	Effective
Size/age/sex selectivity	Medium risk	Medium confidence	Effective
Illegal, unreported and unregulated fishing	Low risk	High confidence	Effective
-		-	

6.3 Eyebrow wedgefish (Rhynchobatus palpebratus)

Summary

Non-Detriment Finding			Positive
IUCN Red List national assessment	Near Threatened	IUCN Red List global assessment	Critically Endangered
National stock assessment sta	atus		Sustainable
Approved export fisheries	Northern Territory Offs	shore Net and Line Fishery, Queen	sland Aquarium Fish Fishery

Eyebrow wedgefish (*Rynchobatus palpebratus*) is assessed within Australia as Sustainable through national assessments aligned to the Status of Australian Fish Stocks process. These assessments are supported by the national IUCN Red List assessments that show this species are Near Threatened. This species is incidentally caught in gillnet and trawl fisheries with minimal catches and suspected stable populations as they are common. The fisheries in which the species are taken are well managed; the use of bycatch reduction devices in trawl fisheries has significantly reduced their catches, and the retention of rays is prohibited in some fisheries. Furthermore, the species have significant refuge from fishing pressure across considerable parts of their ranges due to trawl closures and marine parks. Management measures are effective at mitigating risks to the species in Australian waters. Any export of these species from Australian waters is considered to be non-detrimental to the survival of these species.

The NDF advice for this species is available in the 'Expert scientific advice to inform the CITES non-detriment findings for wedgefishes and giant guitarfishes' (Simpfendorfer and Rigby 2023) report.

Non-Detriment Finding			Positive
Specimen is subject to CITES controls			Yes
Origin and stock confidently identified			Yes
Specimens legally obtained			Yes
Intrinsic biological vulnerability and conservation of	concern		
Intrinsic vulnerability			Medium
Conservation concern			Medium
Trade pressures			Management
Legal trade	Low risk	High confidence	Effective
Illegal trade	Low risk	High confidence	Effective
Fishing pressures			
Fishing mortality (retained catch)	Low risk	High confidence	Effective
Discard mortality	Medium risk	Low confidence	Effective
Size/age/sex selectivity	Medium risk	Medium confidence	Effective
Illegal, unreported and unregulated fishing	Low risk	High confidence	Effective

Glossary

Term	Definition
CITES	The Convention on International Trade in Endangered Species of Wild Fauna and Flora is an international agreement between governments aimed at ensuring that the international trade of specimens of wild animals and plants does not threaten the survival of the species.
DCCEEW	Department of Climate Change, Energy, the Environment and Water
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
IUCN	International Union for Conservation of Nature
NDF	Non-detriment finding is a conclusion by Scientific Authority that the export of specimens of a particular species will not negatively impact on the survival of that species in the wild.
TAC	Total allowable catch
WTO	Wildlife Trade Operation

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