THREATENED MARINE SPECIES IN MOZAMBIQUE: A Summary of the Conservation AND LEGAL STATUS

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EYES ON THE HORIZON Olhos no Horizonte



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1. Introduction

The coastline of Mozambique is 2,770 km long and has a total Economic Exclusion Zone (EEZ) size of just under 572,000 km². This document lists all marine species known to be found in this area that are listed on the IUCN Red List as Vulnerable to extinction, Endangered or Critically Endangered – collectively known as "threatened species". It further provides details of how these species are protected under Mozambican law and international wildlife conventions. The intended purpose of this document is to help facilitate awareness for the conservation of threatened marine species in Mozambique and aid the enforcement of current legislation.

2. The IUCN Red List of Threatened Species

The IUCN (International Union for Conservation of Nature) Red List is the most comprehensive inventory on the global conservation status of plant and animal species. It uses scientific information to categorize species depending on their risk to extinction with the aim of providing information on the status, trends and threats to species in order to catalyse action for conservation.

Threatened species are categorised as Vulnerable, Endangered or Critically Endangered on the basis of quantitative criteria designed to reflect varying degrees of threat to extinction as follows:



Critically Endangered species are considered to be facing an **extremely high risk** of extinction in the wild. The quantitative analysis of these species indicates the probablity of extinction in the wild to be at least 50% in 50 years or three generations, depending on which is longer, up to a maximum of 100 years.



Endangered species are considered to be facing a **very high risk** of extinction in the wild. The quantitative analysis of Endangered species indicates the probablity of extinction in the wild to be at least 20% in 20 years or five generations, depending on which is longer, up to a maximum of 100 years.



Vulnerable species are considered to be facing a **high risk** of extinction in the wild. The quantitative analysis of species in this category indicates the probablity of extinction in the wild to be at least 10% in 100 years.

The category of Near-Threatened applies to animals which do not currently qualify as threatened but are close to qualifying, and those which are likely to become threatened if ongoing conservation actions abate or cease.

3. National legislation, International Legislation and Framework Agreements

In Mozambique some marine species are protected under national fisheries laws, international laws and framework agreements. International agreements to which Mozambique is a party, and conservation and management measures made thereunder, automatically become national law within the legal regime of Mozambique. Outlined below are the pertinent laws and conventions which emcompass threatened marine species in this area. There are four marine parks in Mozambique where different restrictions may apply.

3.1 Direct legislation

There are currently no fish species listed directly under Mozambican commercial or artisanal fisheries laws, although some species fall under the recreational and sports fishing legislation. Turtles and some marine mammals are more widely protected under a number of different Mozambican decrees.

• Recreational and Sports Fishing Regulation (Decree 51/99 of 31 August 1999)

Under chapter IV, article 14, the capture of certain species by sport and recreational fishermen is prohibited. There are also catch restrictions on a number of species as noted in table 2.

• Forests and Wildlife Regulation (Decree 12/2002 of 6 June 2002)

Under chapter IV, articles 43 (5) and 44 (1a) fully protect the species listed in Annex II, which includes all 5 species of marine turtle found in Mozambique, and sets the fine for illegal hunting of marine turtles at 25,000MZN. It also lists dugongs with the fine set at 50,000MZN. Furthermore, article 44 (1d) restricts the hunting of any other animal that may be declared as protected by a law or convention.

• General Regulation of Maritime Fishing (Decree 43/2003 of 10 December 2003)

Article 110.1 states that the use of the Turtle Excluder Device is mandatory to all trawling fisheries aided by a motor.

• Marine and coastal environment regulation (Decree 45/2006 of 30 November 2006)

The hunting of sea turtles of any kind, including the taking or destroying of their eggs in the national territory is prohibited. Any activity that may disrupt ecosystems and habitats and normal development of sea turtles is also prohibited.

3.2 Indirect Legislation

• Forestry and Wildlife law (Decree 10/99 of 7 July 1999)

The forestry and wildlife law includes marine mammals under the definition of wildlife. Under chapter VII, article 41 (2), the storage, transport or trading of wildlife resources without authorization constitutes an infraction punishable by fines of 1,000MZN to 20,000MZN. Furthermore, if an infraction is committed against flora or fauna species that are rare or in danger of extinction or against any other species whose exploitation is prohibited, the applicable fine will be ten times the maximum amount provided for in this article, without prejudice to other sanctions that may apply.

• Fisheries law (Decree 3/90 of 26 September 1990)

Title 3, Article 35, states that the Secretary of State Fisheries can define measures for the conservation and management of fish stocks including prohibiting or regulating the fishing of marine mammals and other internationally protected species as well as protecting rare species of those in danger of extinction and take any other measures of conservation necessary to preserve fish stocks.

• Fisheries law (Decree 22/13 of 1 November 2013)

Title 1, Article 6, states that the government shall determine species whose fishing is prohibited and Title 2, Article 12 states that the governement will ensure the implementation of conservation measures and sustainable management of aquatic resources.

3.3 International Legislation

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

CITES is an international agreement between governments that has the aim of ensuring the international trade in specimens of wild animals and plants does not threaten their survival. The agreement works by subjecting international trade in specimens of selected species to certain controls. The species covered by CITES are listed in three appendices according to the degree of protection they need and some of the species found in Mozambique are listed on appendices I and II.

Appendix I

International trade in the specimens of species listed on Appendix I is only permitted in exceptional circumstances if the specimen is not to be used for primarily commercial purposes and if the import will be for purposes that are not detrimental to the survival of the species. It is for specimens threatened with extinction.

Appendix II

International trade in the specimens listed on Appendix II is subject to certain controls and all trade is regulated through a system of permits and certificates. This covers species not necessarily threatened with extinction, but in which trade must be controlled in order to avoid utilization incompatible with their survival.

The international trade of any species in this document which are listed on CITES is illegal without permits. It should be noted that the smooth, great and scalloped hammerhead sharks, oceanic white tip shark, and both species of manta ray were added to CITES in March 2013 and there is a 18-month grace period before the listings come into full effect to enable countries to organise permitting and monitoring procedures.

• The Indian Ocean Tuna Commission

The Indian Ocean Tuna Commission is an intergovernmental organisation established under the FAO constitution and tasked with managing tuna and tuna like species - including some billfish and sharks - in the Indian Ocean and adjacent seas. The Commission aims to promote cooperation among its members, including Mozambique, in order to ensure the conservation and optimum utilisation of stocks covered by the agreement.

The agreement covers 16 tuna and tuna-like species including bigeye tuna and blue marlin, and it also aims to limit potential bycatch of sharks and turtles.

• The United Nations Fish Stocks Agreement (UNFSA)

UNFSA establishes a set of rights and obligations for States to conserve and manage fish stocks, associated and dependent species as well as to protect biodiversity in the marine environment.

• African Convention on the Conservation of Nature and Natural Resources

The convention is applicable to all African Union members including Mozambique.

Article 4 states that all parties will maintain and enhance species diversity and will establish and implement policies for the conservation and sustainable use of such resources with particular attention paid to socially, economically and ecologically valuable species which are threatened. Furthermore, Article 5 states that the parties will identify the factors that are causing depletion of threatened animal and plant species and will adopt legislation for their protection.

3.4. Framework Agreements

• Convention on Migratory Species (CMS)

CMS is an intergovernmental organization established exclusively for the conservation of migratory species including marine animals. Animals can be listed on one of two appendices. Appendix I list's migratory species threatened with extinction and Appendix II lists migratory species that need or would significantly benefit from international cooperation regarding their conservation.

Mozambique is a signatory to CMS and has signed two MoU's which aim to protect populations of dugongs and turtles.

1. The Memorandum of Understanding on the Conservation and Management of the Marine Turtles and its Habitats in the Indian Ocean and Southeast Asia (IOSEA-MoU)

The Memorandum puts in place a framework through which States of the Indian Ocean and South-East Asia region, as well as other concerned States, can work together to conserve and replenish depleted marine turtle populations for which they share responsibility.

2. Dugong: Memorandum of Understanding on the Conservation and Management of Dugongs and their Habitats throughout their Range (31.10.2007)

This MoU is designed to facilitate national level and trans-boundary actions that will lead to the conservation of dugong populations and their habitats. The associated Conservation and Management Plan (CMP) provides the basis for focused species and habitat-specific activities coordinated across the dugong's migration range.

Mozambique has not signed the Shark and Ray MoU.

3.5 Other Considerations

There are four marine parks in Mozambique where different restrictions may apply. These are:

• **Bazaruto Archipelago National Park** - Situated in the Inhambane province on and along the coast of Vilanculos and Inhassoro districts, the park covers a large expanse of ocean as well as the five islands of the archipelago with an area of 1430 km².

• **Ponta do Ouro Partial Marine Reserve** - A 678 km² marine protected area, stretching from Ponta do Ouro in the south to the Maputo River Mouth in Maputo Bay in the north. It stretches three nautical miles into the Indian Ocean and includes Inhaca Island and Portuguese Island.

• **Primeiras and Segundas Marine Protected Area** - Located in the Primeiras and Segundas Archipelago between the Nampula and Zambezia Provinces, covering over 10,400 km² of the coastline.

• **Quirimbas National Park** - The Quirimbas National Park (QNP) is situated in Cabo Delgado Province, and stretches 110km along the northeast coast of Mozambique. It covers a large area of the mainland in addition to 11 islands in the Quirimbas Archipelago.

4. How to use this guide

This document lists the threatened species found in Mozambique which fall under the following categories:

- Sharks & rays
- Bony fish
- Turtles
- Mammals

This list has been compiled using the country lists provided by FishBase (www.fishbase.org) and the IUCN Red List (www.iucnredlist.org).

If a species is not listed it may be inferred that the particular animal is not classified as threatened on the date of publication. Those that are threatened are listed alphabetically by common name. Each entry includes a photo where one is available and the IUCN classification. If a species is protected by Mozambican law or international agreements it will be highlighted with the following key. If it is not protected the symbol will be blanked out.



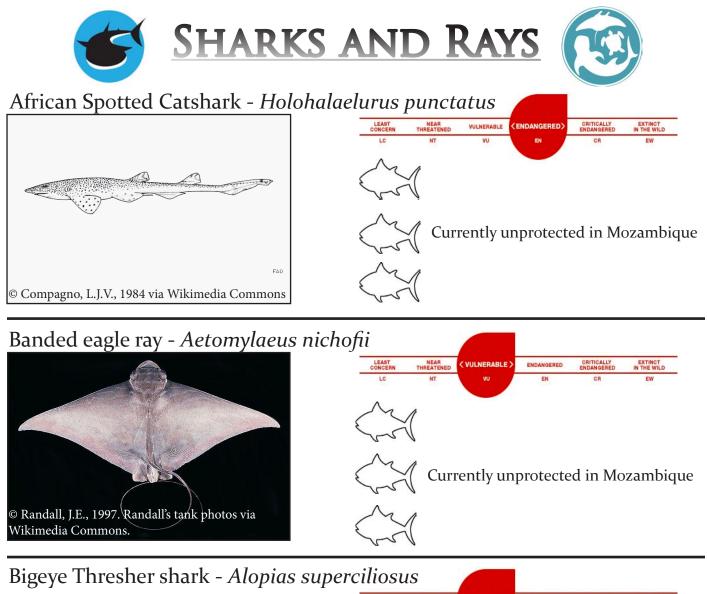
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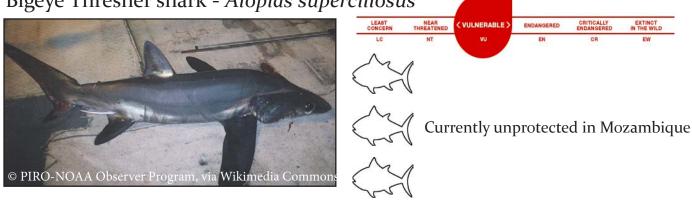


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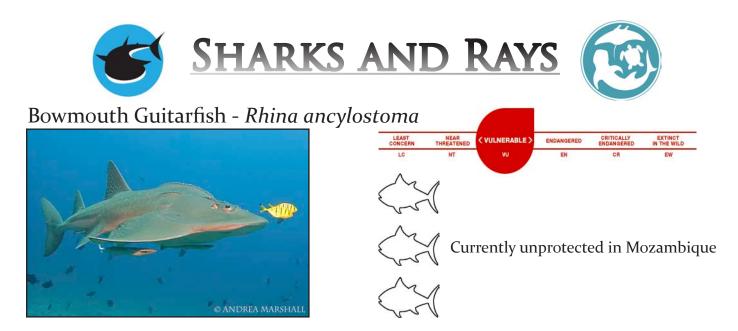


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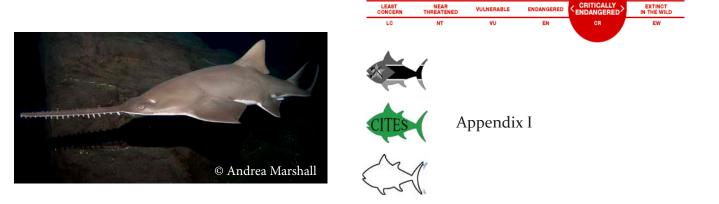


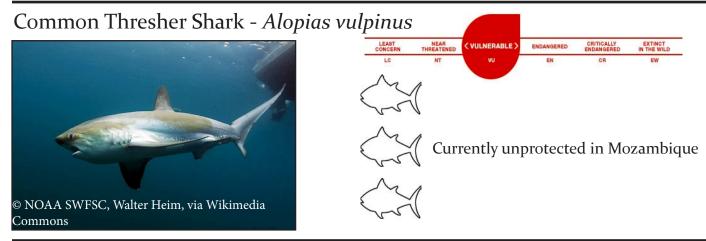


Blotched Fantail Ray - Taeniurops meyeni $\frac{1}{10}$ \frac



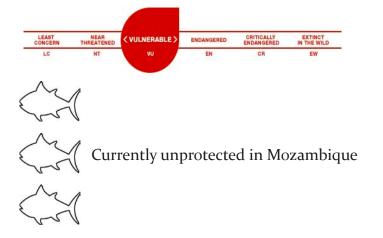
Common Sawfish - Pristis pristis

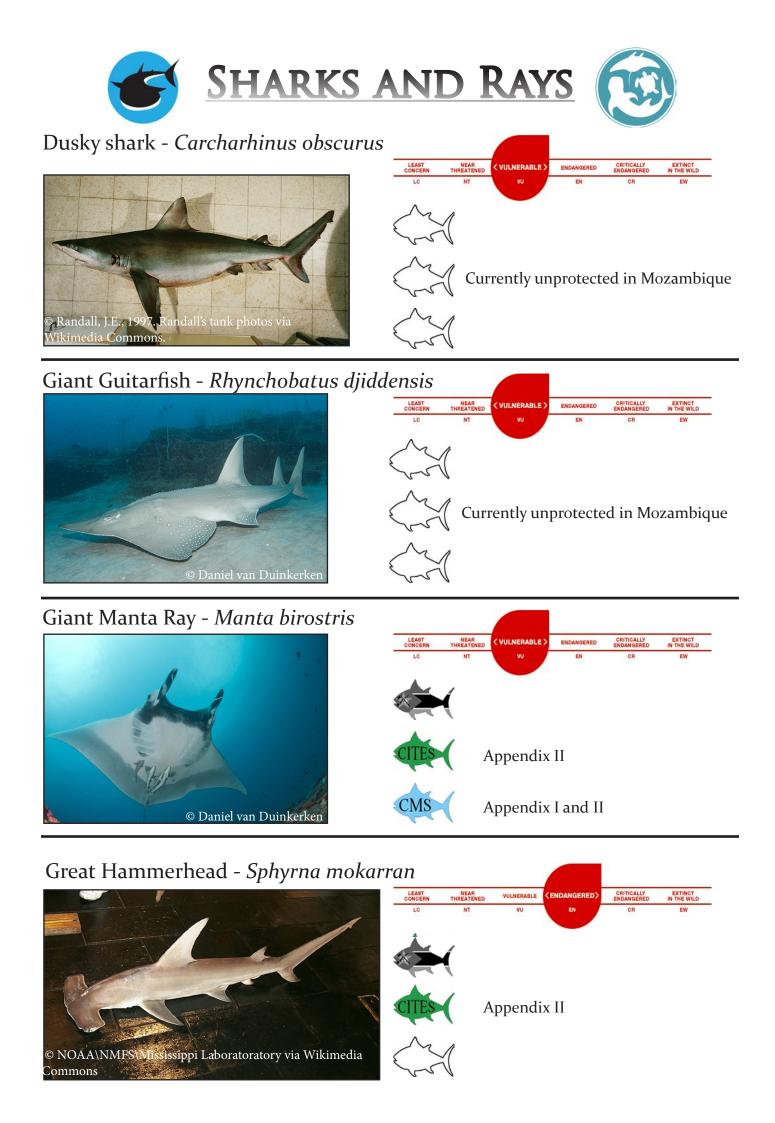


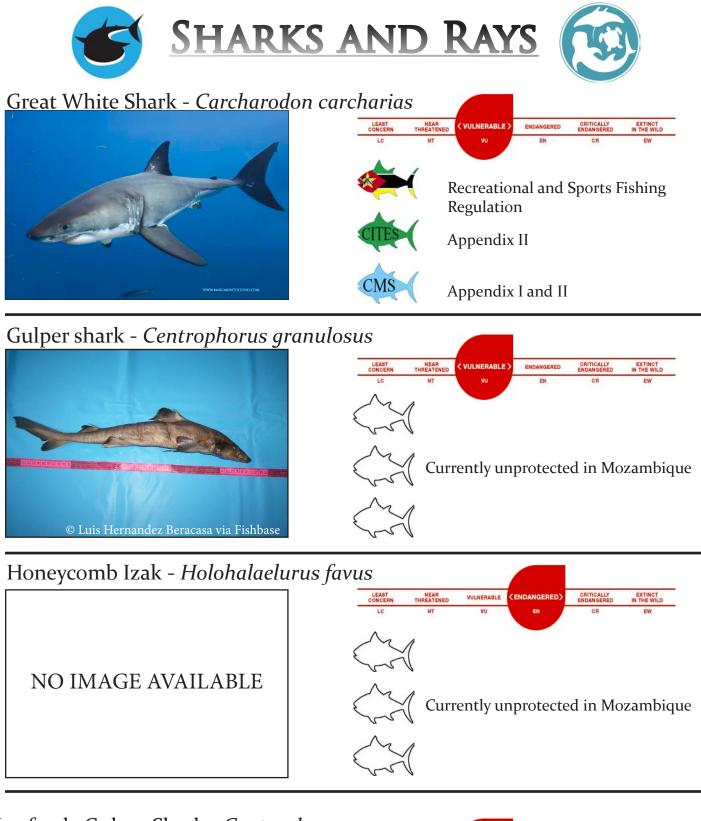


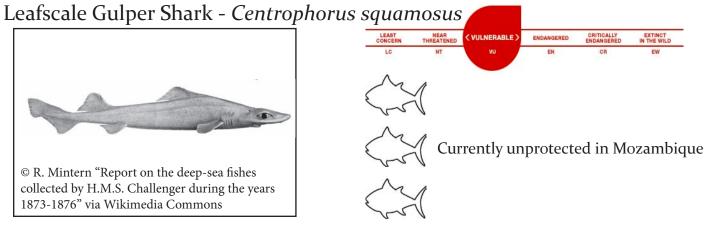
Cownose Ray - Rhinoptera javanica

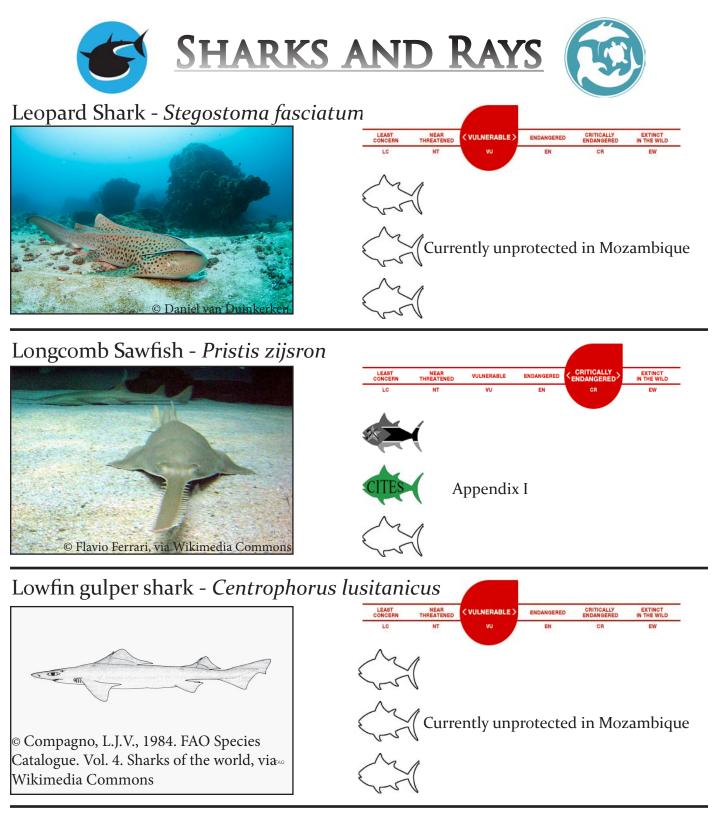


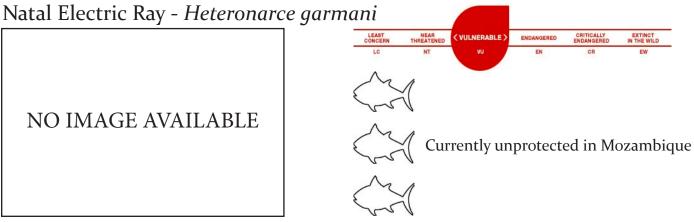


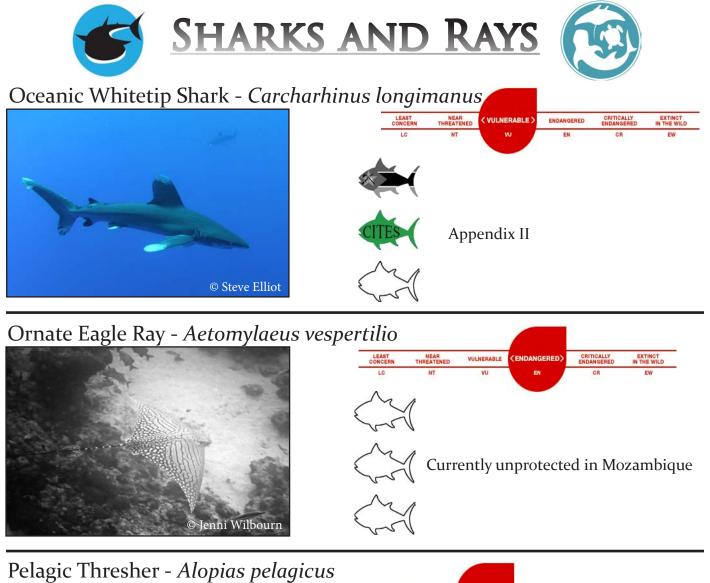






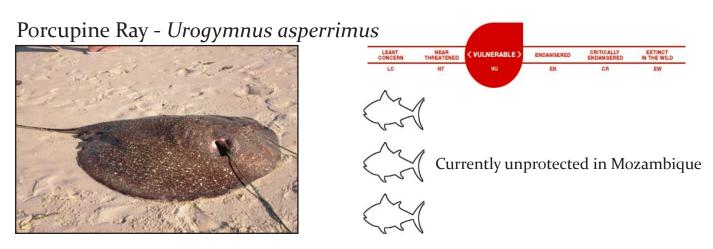


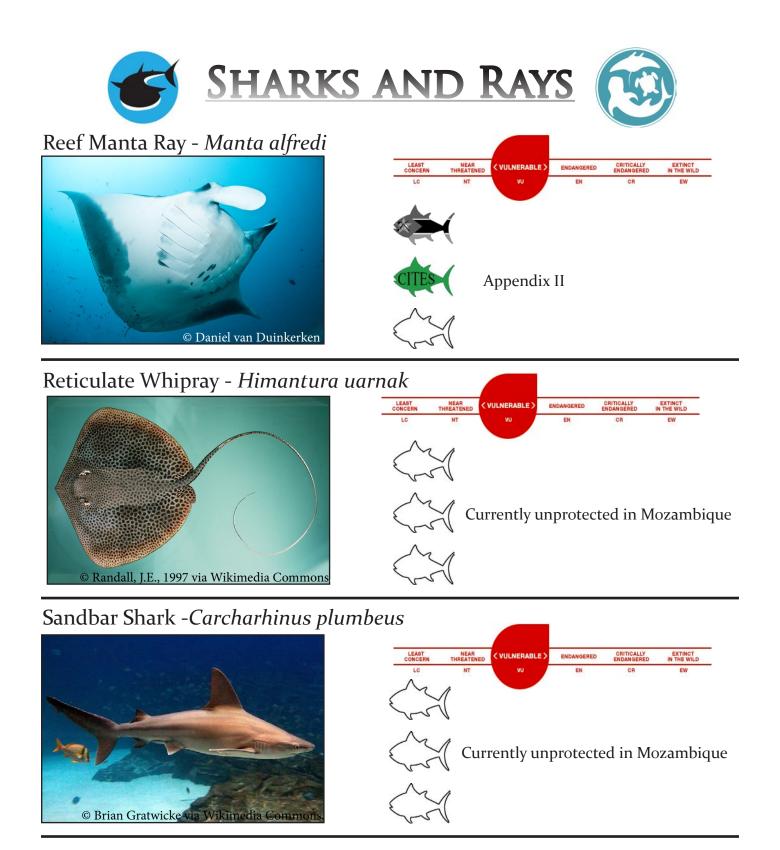






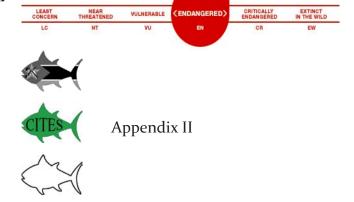


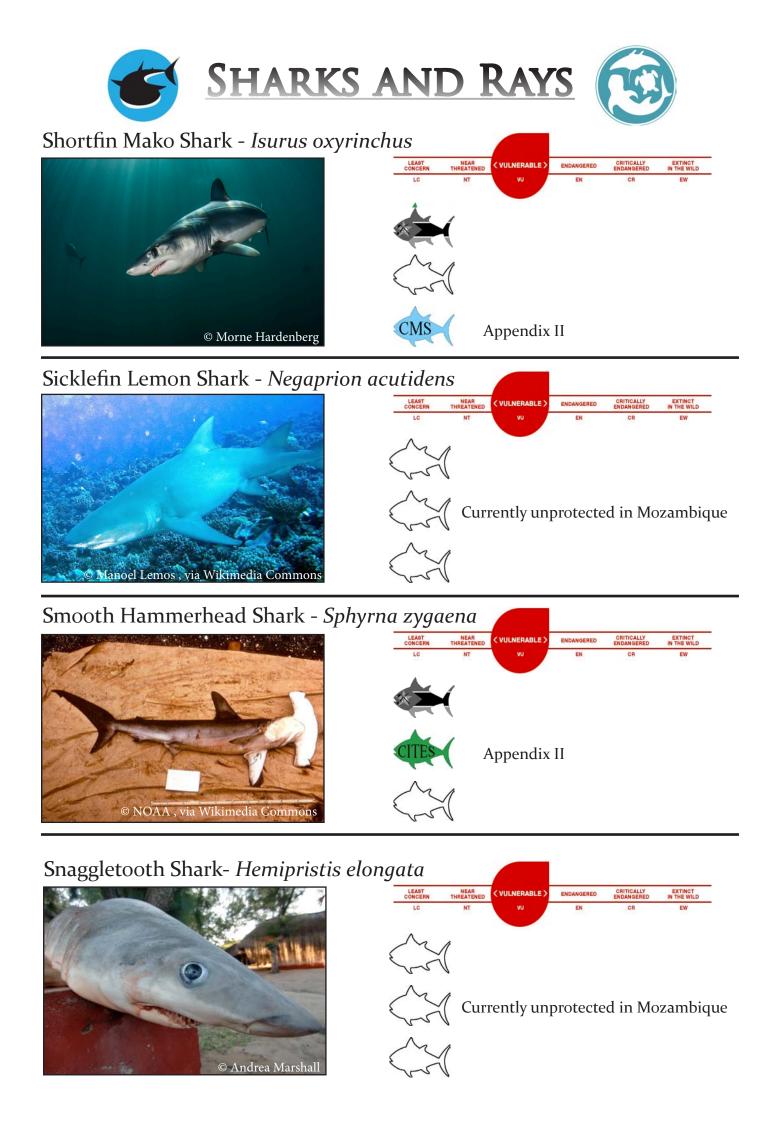


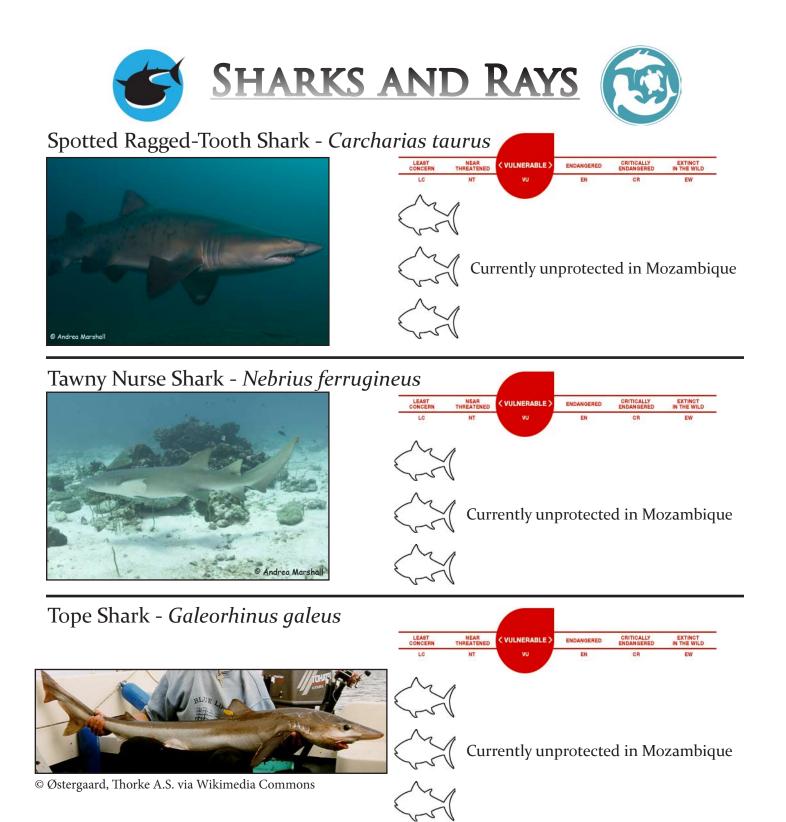


Scalloped Hammerhead Shark - Sphyrna lewini



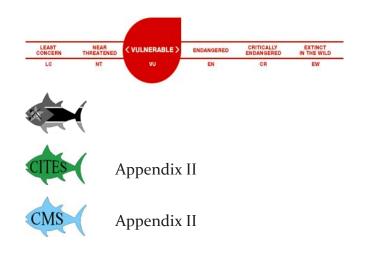


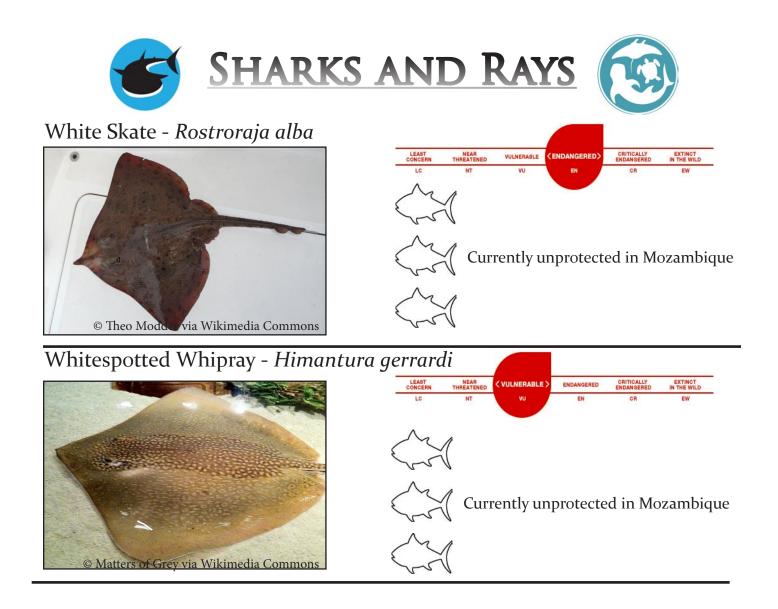


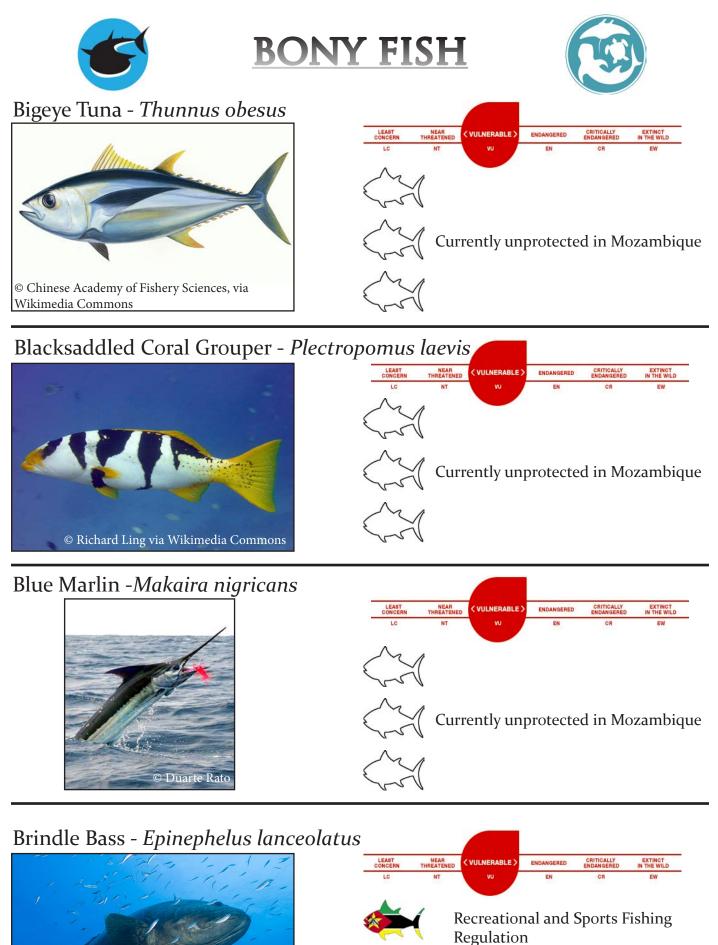


Whale Shark - Rhincodon typus



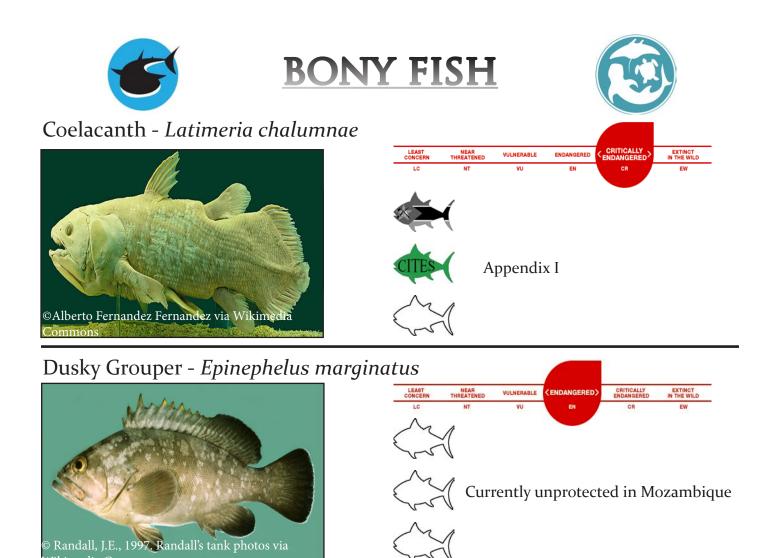








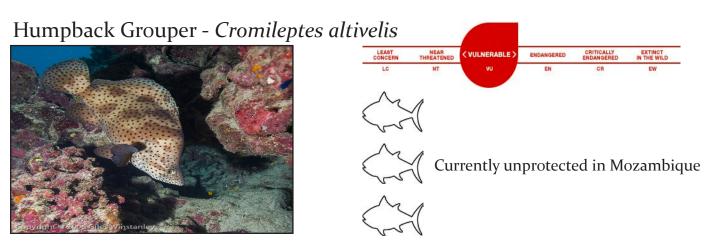
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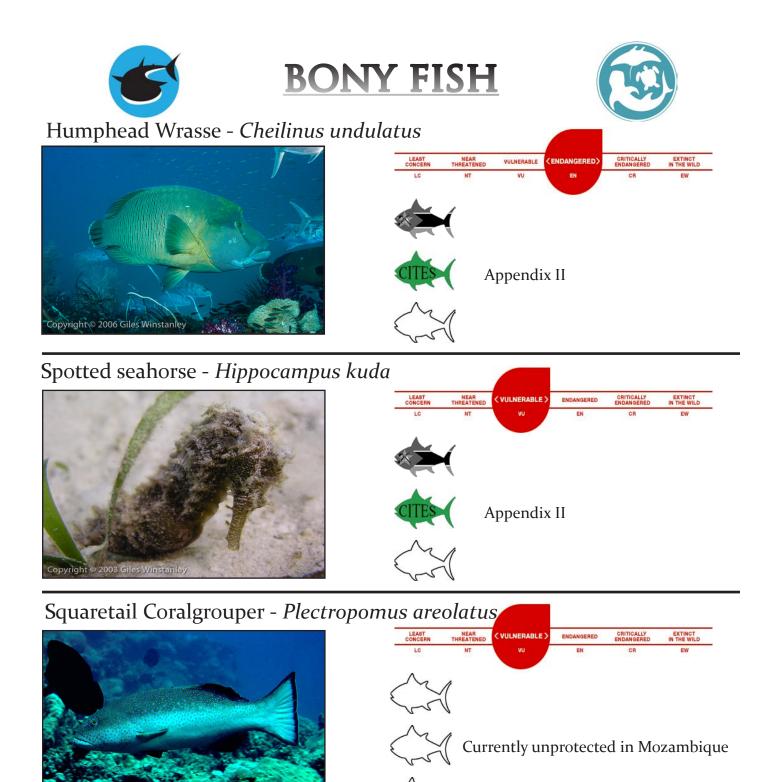


Green Humphead Parrotfish - Bolbometopon muricatum



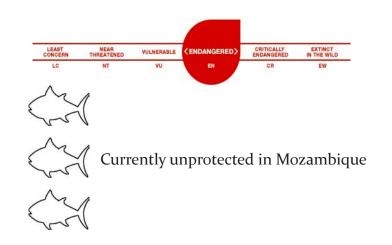


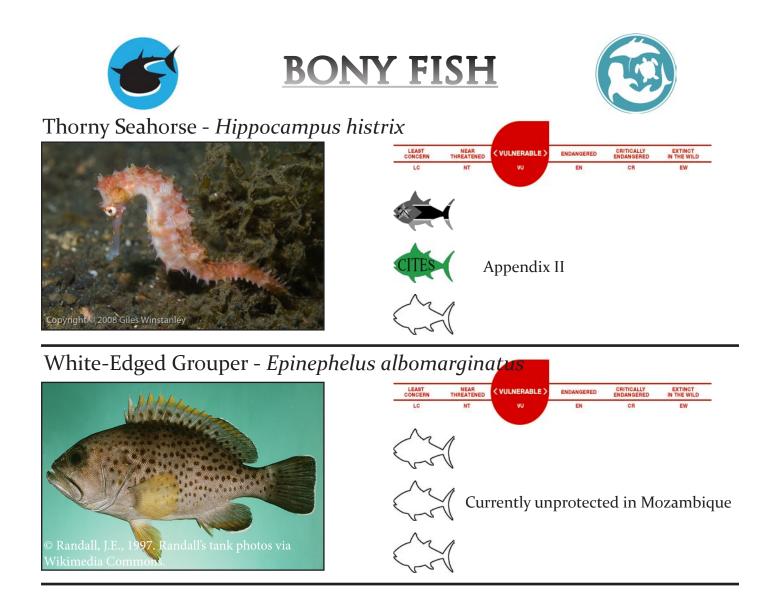


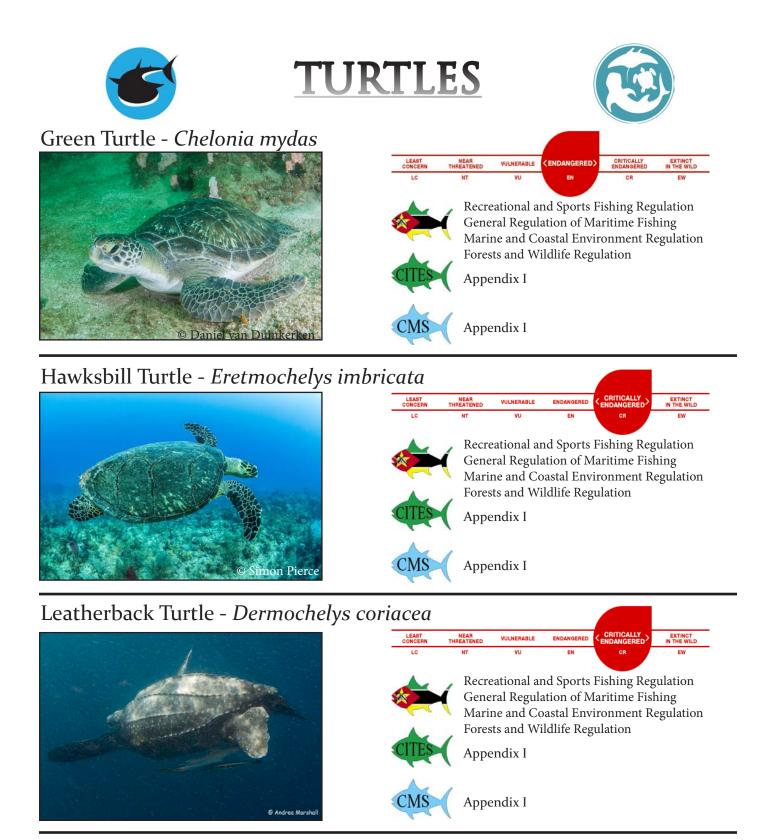


St. Lucia Mullet - Liza luciae









Loggerhead Turtle -Caretta caretta



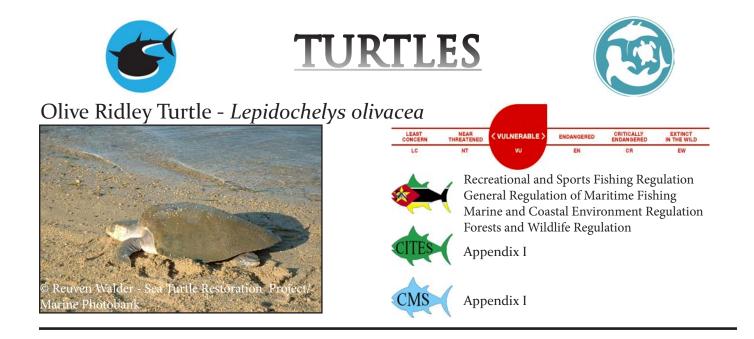


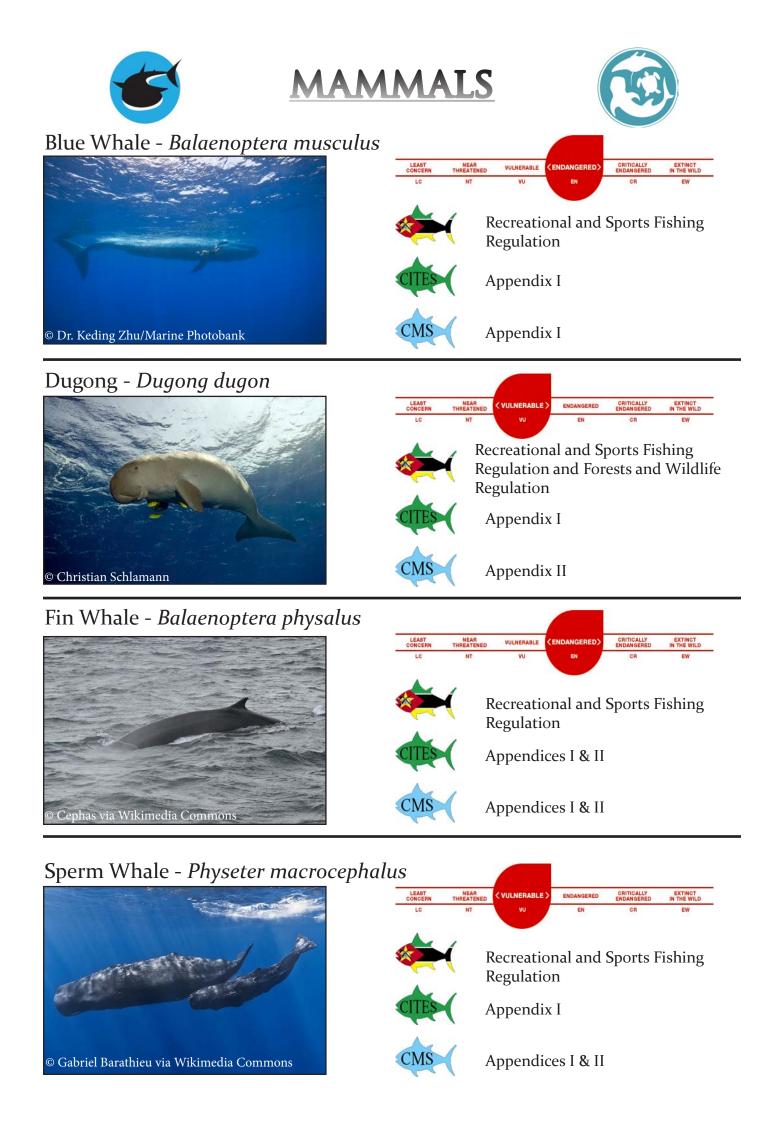


Recreational and Sports Fishing Regulation General Regulation of Maritime Fishing Marine and Coastal Environment Regulation Forests and Wildlife Regulation

Appendix I

Appendix I





Recommendations

Eyes on the Horizon and Marine Megafauna Foundation recommend that the following species which are classified as Critically Endangered or Endangered, or that appear on CITES or CMS, require increased protection in Mozmabique in order to help fulfil international treaty obligations and enhance the protection of threatened marine species in Mozambique. Furthemore, we recommend that regulations pertaining to gill nets take into account the movement corridors of these species.

Critically Endangered Species

Coelacanth - Latimeria chalumnae Common Sawfish - Pristis pristis Hawksbill Turtle - Eretmochelys imbricata Leatherback Turtle - Dermochelys coriacea Longcomb Sawfish - Pristis zijsron

Endangered Species

Blue Whale - Balaenoptera musculus Fin Whale - Balaenoptera physalus Great Hammerhead - Sphyrna mokarran Green Turtle - Chelonia mydas Loggerhead Turtle -Caretta caretta Scalloped Hammerhead Shark - Sphyrna lewini

The following species are currently unprotected: African Spotted Catshark - *Holohalaelurus punctatus* Dusky Grouper - *Epinephelus marginatus* Honeycomb Izak - *Holohalaelurus favus* Humphead Wrasse - *Cheilinus undulatus* Ornate Eagle Ray - *Aetomylaeus vespertilio* St. Lucia Mullet - *Liza luciae* White Skate - *Rostroraja alba*

Vulnerable Species listed under International Conventions

Dugong - Dugong dugon (CITES & CMS) Giant Manta Ray - Manta birostris (CITES & CMS) Great White Shark - Carcharodon carcharias (CITES & CMS) Oceanic Whitetip Shark - Carcharhinus longimanus (CITES) Reef Manta Ray - Manta alfredi (CITES) Shortfin Mako Shark - Isurus oxyrinchus (CMS) Smooth Hammerhead Shark - Sphyrna zygaena (CITES) Whale Shark - Rhincodon typus (CITES & CMS) Spotted seahorse - Hippocampus kuda (CITES) Thorny Seahorse - Hippocampus histrix (CITES) Sperm Whale - Physeter macrocephalus (CITES & CMS)

We also reccomend that the following rays which are listed as data deficient on the IUCN Redlist, due to inadequate information to make a direct, or indirect, assessment of their risk of extinction based on distribution and/or population status, also deserve increased protection.

Smalleye Stingray - *Dasyatis microps* Shortfin Devilray - *Mobula Kuhlii*

Table 1 - Protected Mozambican species not classified as threatened by the IUCN Redlist

Common Name	Scientific Name	IUCN classification			
			Recreational and Sports Fishing Regulation	CITES	CMS
Giant Clam	Tridacna squamosa	Least Concern	\checkmark		1
Giraffe Seahorse	Hippocampus camelopardalis	Data Deficient		\checkmark	
Horned Helmet	Cassis cornuta	Not Evaluated	\checkmark		
Humpback Whale	Megaptera novaeangliae	Least Concern			\checkmark
Potato Grouper	Ephinephelus tukula	Least Concern	\checkmark		
Red Steenbras	Petrus rupestris	Not Evaluated			$\overline{\mathbf{V}}$
Reunion Seahorse	Hippocampus borboniensis	Data Deficient	\checkmark		
Seventy-Four Seabream	Polysteganus undulosus	Not Evaluated	\checkmark		
Small Giant Clam	Tridacna maxima	Least Concern		\checkmark	
Southern Right Whale	Eubalaena australis	Least Concern			\checkmark
Trumpet Triton	Charonia tritonis	Not Evaluated			
All whale species			$\overline{\checkmark}$		
All dolphin species			\checkmark		
All seahorse species				\checkmark	

Table 2 - Fish species catch restrictions in Mozambican sport fisheries

Fish (English name)	Piexes (Portuguese name)	Number of fish per fisher/day
Slinger	Marreco	4
Soldier	Robalo	4
Blueskin	Blueskin	4
Rockcod	Garoupa	4
Parrotfish	Scarus spp	1
Sharks (except great white shark)	Tubaroes (excepto o tubarao branco)	2
Deep water rock lobster	Lagosta de fundo	2
Rock lobster	Lagosta de rocha	2
Crayfish	Lagostim	2
Shrimps	Camarilo	0
Deep water shrimp	Gamba	0
Lobsters	Lagostas	2

Index - Sharks and Rays

Scientific Name	Common Name	IUCN classification	Directly protect- ed by Mozambi- can legislation	CITES	CMS
Aetomylaeus nichofii	Banded Eagle Ray	Vulnerable			
Aetomylaeus vespertilio	Ornate Electric Ray	Endangered			
Alopias pelagicus	Pelagic Thresher Shark	Vulnerable			
Alopias superciliosus	Bigeye Thresher Shark	Vulnerable			
Alopias vulpinus	Common Thresher Shark	Vulnerable			
Carcharhinus longimanus	Oceanic Whitetip Shark	Vulnerable			
Carcharhinus obscurus	Dusky Shark	Vulnerable		1	
Carcharhinus plumbeus	Sandbar Shark	Vulnerable			
Carcharias taurus	Spotted Ragged-Tooth Shark	Vulnerable			
Carcharodon carcharias	Great White Shark	Vulnerable	\checkmark		
Centrophorus granulosus	Gulper Shark	Vulnerable			
<i>Centrophorus lusitanicus</i>	Lowfin Gulper Shark	Vulnerable		1	
Centrophorus squamosus	Leafscale Gulper Shark	Vulnerable	ĺ	İ	
Galeorhinus galeus	Tope Shark	Vulnerable		1	
Hemipristis elongata	Snaggletooth Shark	Vulnerable		1	
Heteronarce garmani	Natal Electric Ray	Vulnerable	İ	İ	
Himantura gerrardi	Whitespotted Whipray	Vulnerable	İ	1	
Himantura uarnak	Reticulate Whipray	Vulnerable		1	
Holohalaelurus favus	Honeycomb Izak	Endangered	İ	İ	
Holohalaelurus punctatus	African Spotted Catshark	Endangered	İ	İ	
Isurus oxyrinchus	Shortfin Mako Shark	Vulnerable			
Manta alfredi	Reef Manta Ray	Vulnerable	İ		
Manta birostris	Giant Manta Ray	Vulnerable			
Nebrius ferrugineus	Tawny Nurse Shark	Vulnerable			
Negaprion acutidens	Sicklefin Lemon Shark	Vulnerable			
Pristis pristis	Common Sawfish	Critically Endangered			
Pristis zijsron	Longcomb Sawfish	Critically Endangered			
Rhina ancylostoma	Bowmouth Guitarfish	Vulnerable			
Rhincodon typus	Whale Shark	Vulnerable			
Rhinoptera javanica	Cownose Ray	Vulnerable		+ -	
Rhynchobatus djiddensis	Giant Guitarfish	Vulnerable			$\left \right $
Rostroraja alba	White Skate	Endangered			
Sphyrna lewini	Scalloped Hammerhead	Endangered			
Sphyrna mokarran	Great Hammerhead	Endangered			
	Smooth Hammerhead	Vulnerable			
Sphyrna zygaena					$\left \right $
Stegostoma fasciatum	Leopard Shark	Vulnerable			$\left \right $
Taeniurops meyeni	Blotched Fantail Ray	Vulnerable			

Index - Bony fish, Turtles and Marine Mammals

Scientific Name	Common Name	IUCN classification	otect- ambi- ion		
			Directly protect- ed by Mozambi- can legislation	CITES	CMS
Bony Fish					
Bolbometopon muricatum	Green Humphead Parrotfish	Vulnerable			
Cheilinus undulatus	Humphead Wrasse	Endangered	İ	1	
Cromileptes altivelis	Humpback Grouper	Vulnerable		\checkmark	
Epinephelus albomarginatus	White-Edged Grouper	Vulnerable	ĺ		
<i>Epinephelus lanceolatus</i>	Brindle Bass	Vulnerable	İ	1	
Epinephelus marginatus	Dusky Grouper	Endangered	\checkmark	1	
Hippocampus histrix	Thorny Seahorse	Vulnerable	İ		
Hippocampus kuda	Spotted Seahorse	Vulnerable			
Latimeria chalumnae	Coelacanth	Critically Endangered	İ		
Liza luciae	St. Lucia Mullet	Endangered	İ	1	
Makaira nigricans	Blue marlin	Vulnerable	İ	1	
Plectropomus areolatu	Square-tail coral grouper	Vulnerable	ĺ		
Plectropomus laevis	Blacksaddled Coral Grouper	Vulnerable	İ	1	
	· · · · · ·		İ	1	
Turtles					
Caretta caretta	Loggerhead Turtle	Endangered	\checkmark	\checkmark	
Chelonia Mydas	Green Turtle	Endangered	\checkmark		
Dermochelys coriacea	Leatherback Turtle	Crtically Endangered	\checkmark	\checkmark	
Eretmochelys imbricata	Hawksbill Turtle	Critically Endangered	\checkmark	\checkmark	
Lepidochelys olivacea	Olive Ridley Turtle	Vulnerable	\checkmark	\checkmark	
Mammals					
Balaenoptera musculus	Blue Whale	Endangered	$\overline{}$		
Balaenoptera physalus	Fin Whale	Endangered			
Dugong dugon	Dugong	Vulnerable			
<i>Physeter macrocephalus</i>	Sperm Whale	Vulnerable	$\overline{\mathbf{V}}$		
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				1	
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				1	

Acknowledgements

This species list has been compiled using the country lists provided by FishBase (www.fishbase.org) and the IUCN Red List (www.iucnredlist.org).

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