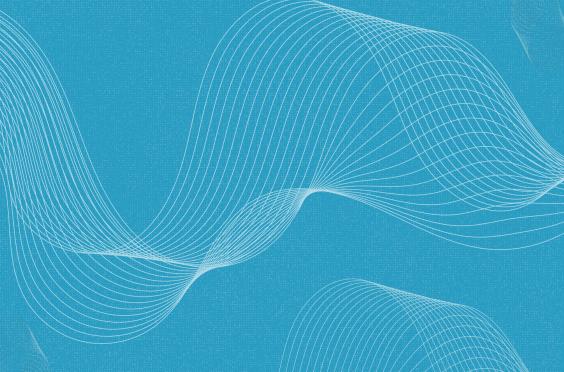
# ILLUSTRATED GUIDE TO PROTECTED ELASMOBRANCHS IN INDIAN WATERS

WITH WPAA, IUCN, CITES & NDF STATUS

CMFRI Booklet Series No. 44/2025

Indian Council of Agricultural Research Central Marine Fisheries Research Institute, Kochi-682 018, India www.cmfri.org.in





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Illustrated Guide To Protected Elasmobranchs In Indian Waters - With WPAA, IUCN, CITES & NDF Status

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## Foreword



The conservation of marine biodiversity, particularly vulnerable groups like elasmobranchs, has assumed greater significance in India with the enactment of the Wild Life (Protection) Amendment Act, 2022. In this context, I am pleased to present the "Illustrated Guide to Protected Elasmobranchs in Indian Waters with WPAA, IUCN, CITES & NDF Status"-a timely and practical output from our dedicated elasmobranch research team.

This guide offers a concise compilation of elasmobranch species listed under the amended Act, along with their respective protection status under the Wild Life (Protection) Act, CITES Appendices, IUCN Red List categories, and Non-Detriment Finding (NDF) assessments. Each species is illustrated for easy and accurate identification in the field, making this booklet a vital tool for fisheries managers, enforcement agencies, and frontline officials engaged in regulation, monitoring, and curbing illegal trade.

Beyond its operational utility, the guide also serves academic and awareness purposes, aiding researchers and students in understanding the evolving legal and conservation landscape for elasmobranchs in India. By bringing together multiple conservation indicators in a single, accessible format, this publication enhances clarity, supports informed decision-making, and reinforces India's commitment to sustainable and lawful marine trade practices.

I congratulate the team for their meticulous work in developing this much-needed resource. This guide will undoubtedly strengthen on-ground implementation and advance collective efforts in elasmobranch conservation.

Let this publication inspire continued awareness, stronger enforcement, and meaningful conservation action among all stakeholders.

Dr. Grinson George Director, ICAR-CMFRI

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### **Rhincodon typus** Whale Shark

WPAA (2022) Status

Schedule I



**IUCN Status** 



Endangered

**CITES Status** Appendix II





**NDF Advisory for India** Not Applicable

#### Carcharhinus hemiodon **Pondicherry Shark**



**IUCN Status** Critically Endangered

Status Schedule I



**CITES Status** Appendix II





NDF Advisory for India Not Applicable

#### *Glyphis gangeticus* Ganges Shark

WPAA (2022) Status

Schedule I



IUCN Status Critically Endangered



**CITES Status** Appendix II





NDF Advisory for India Not Applicable

#### **Carcharhinus longimanus** Oceanic Whitetip Shark





IUCN Status Critically Endangered



**CITES Status** Appendix II





NDF Advisory for India Positive (Period 2017-2022)

Present NDF Advisory (2023 Onwards) Negative Remarks

#### **Carcharhinus falciformis** Silky Shark





IUCN Status Vulnerable



**CITES Status** Appendix II





NDF Advisory for India Positive with conditions (Period 2019-2022)

Present NDF Advisory (2023 Onwards) Negative Remarks

### Sphyrna mokarran Great Hammerhead

WPAA (2022) Status Schedule II & Schedule IV



IUCN Status Critically Endangered



**CITES Status** Appendix II





NDF Advisory for India Positive (Period 2017-2022)

Present NDF Advisory (2023 Onwards) Negative Remarks

#### Sphyrna zygaena Smooth Hammerhead

WPAA (2022) Status Schedule II & Schedule IV



IUCN Status Vulnerable



**CITES Status** Appendix II

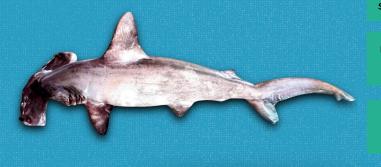




NDF Advisory for India Positive (Period 2017-2022)

Present NDF Advisory (2023 Onwards) Negative Remarks

### **Sphyrna lewini** Scalloped Hammerhead



WPAA (2022) Status

Schedule IV



IUCN Status Critically Endangered



**CITES Status** Appendix II





NDF Advisory for India Positive (Period 2017-2022)

Present NDF Advisory (2023 Onwards) Negative Remarks

### *Eusphyra blochii* Winghead Shark

WPAA (2022) Status

Schedule II

Tradia area Reality area

IUCN Status Endangered



**CITES Status** Appendix II





NDF Advisory for India Not Applicable

#### Alopias spp. Thresher Sharks

#### **IUCN Status**

Alopias pelagicus Endangered

*Alopias vulpinus* Vulnerable



*Alopias superciliosus* Vulnerable

WPAA Status	(2022)



Schedule IV

**CITES Status** Appendix II





NDF Advisory for India

Positive with conditions (Period 2019-2022)

Present NDF Advisory (2023 Onwards) Negative Remarks

### Isurus oxyrinchus Shortfin Mako

WPAA (2022) Status

Schedule IV



IUCN Status Endangered



**CITES Status** Appendix II





Present NDF Advisory (2023 Onwards) Negative

NDF Advisory for India Negative (Period 2022-2026)

#### Isurus paucus Longfin Mako



संस्वमेव जन्म सन्यमेव जन्म

IUCN Status Endangered



**CITES Status** Appendix II





NDF Advisory for India Negative (Period 2022-2026)

Present NDF Advisory (2023 Onwards) Negative Remarks

#### **Pristis pristis** Common Sawfish

WPAA (2022) Status Schedule I & Schedule IV



IUCN Status Critically Endangered



**CITES Status** Appendix I





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NDF Advisory for India Not Required Remarks Protected under Wild life (Protection) Amendment Act, 2022

#### **Pristis clavata** Dwarf Sawfish

WPAA (2022) Status Schedule I & Schedule IV



IUCN Status Critically Endangered



**CITES Status** Appendix I





NDF Advisory for India Not Required Remarks Protected under Wild life (Protection) Amendment Act, 2022

#### **Pristis zijsron** Green Sawfish

WPAA (2022) Status Schedule I & Schedule IV



IUCN Status Critically Endangered



**CITES Status** Appendix I





NDF Advisory for India Not Required Remarks Protected under Wild life (Protection) Amendment Act, 2022

#### Anoxypristis cuspidata Narrow Sawfish

WPAA (2022) Status Schedule I & Schedule IV



IUCN Status Critically Endangered



**CITES Status** Appendix I





NDF Advisory for India Not Required Remarks Protected under Wild life (Protection) Amendment Act, 2022

### **Urogymnus asperrimus** Porcupine Whipray



IUCN Status Endangered

WPAA (2022) Status



CITES Status Not Evaluated





**NDF Advisory for India** Not Applicable

### **Urogymnus polylepis** Giant Freshwater Whipray

WPAA (2022) Status

Schedule I



IUCN Status Endangered



CITES Status Not Evaluated





NDF Advisory for India Not Applicable

#### Himantura fluviatilis Ganges Stingray

WPAA (2022) Status





**IUCN Status** 



CITES Status Not Evaluated





**NDF Advisory for India** Not Applicable

#### Mobula alfredi Reef Manta Ray





IUCN Status Vulnerable



**CITES Status** Appendix II





**NDF Advisory for India** Not Applicable Remarks Protected under Wild life (Protection) Amendment

Act, 2022

#### Mobula birostris Giant Manta Ray

WPAA (2022) Status



IUCN Status Endangered



CITES Status Appendix II





**NDF Advisory for India** Not Applicable Remarks Protected under Wild life (Protection) Amendment

Act, 2022

#### Mobula tarapacana Chilean Devilray

WPAA (2022) Status

Schedule II



IUCN Status Vulnerable



**CITES Status** Appendix II





NDF Advisory for India Positive with Conditions (Period 2022-2024) Present NDF Advisory (2023 Onwards) Negative

## Mobula spp.



#### WPAA (2022) Status

Schedule IV



**CITES Status** 





#### **IUCN Status**

*Mobula mobular* Endangered

*Mobula birostris* Endangered

Mobula thurstoni Endangered

*Mobula kuhlii* Endangered

*Mobula eregoodoo* Endangered

Mobula tarapacana Endangered

*Mobula alfredi* Vulnerable





NDF Advisory for India Positive with Conditions (Period 2022-2024) Present NDF Advisory (2023 Onwards)

Negative

Remarks

#### Aetomylaeus maculatus Mottled Eagle Ray

WPAA (2022) Status

Schedule I



IUCN Status Endangered



CITES Status Not Evaluated





NDF Advisory for India Not Applicable

### Aetomylaeus milvus Ocellate Eagle Ray

WPAA (2022) Status

Schedule I



IUCN Status Endangered



CITES Status Not Evaluated





NDF Advisory for India Not Applicable

### Aetomylaeus vespertilio Banded Eagle Ray



Schedule I



IUCN Status Critically Endangered



CITES Status Not Evaluated





NDF Advisory for India Not Applicable

#### *Glaucostegus obtusus* Widenose Guitarfish

WPAA (2022) Status Schedule I & Schedule IV



IUCN Status Critically Endangered



**CITES Status** Appendix II





NDF Advisory for India Not Applicable

#### *Glaucostegus thouin* Clubnose Guitarfish

WPAA (2022) Status Schedule I & Schedule IV



IUCN Status Critically Endangered



**CITES Status** Appendix II





NDF Advisory for India Not Applicable Remarks

## Glaucostegus spp.

WPAA (2022) Status

Schedule IV



IUCN Status Critically Endangered



**CITES Status** Appendix II





NDF Advisory for India Not Applicable **Remarks** Protected under Wild life (Protection) Amendment

Act, 2022

#### **Rhina ancylostomus** Bowmouth Guitarfish

WPAA (2022) Status Schedule I & Schedule IV



IUCN Status Critically Endangered



**CITES Status** Appendix II





NDF Advisory for India Negative (Period 2022-2026)

Present NDF Advisory (2023 Onwards) Negative Remarks

### **Rhynchobatus djiddensis** Giant Guitarfish

WPAA (2022) Status Schedule I & Schedule IV



IUCN Status Critically Endangered



CITES Status Appendix II





NDF Advisory for India Negative (Period 2022-2026)

Present NDF Advisory (2023 Onwards) Negative Remarks

### *Rhynchobatus laevis* Smoothnose Wedgefish

WPAA (2022) Status Schedule I & Schedule IV



IUCN Status Critically Endangered



CITES Status Appendix II





NDF Advisory for India Negative (Period 2022-2026)

Present NDF Advisory (2023 Onwards) Negative Remarks

### *Rhynchobatus australiae* Bottlenose Wedgefish

WPAA (2022) Status Schedule I & Schedule IV



IUCN Status Critically Endangered



CITES Status Appendix II





NDF Advisory for India Negative (Period 2022-2026)

Present NDF Advisory (2023 Onwards) Negative Remarks

## **Family Rhinidae**

WPAA (2022) Status

Schedule IV



IUCN Status Critically Endangered



CITES Status Appendix II





NDF Advisory for India Negative (Period 2022-2026)

Present NDF Advisory (2023 Onwards) Negative Remarks

# **Abbreviations**

WPAA (2022)	The Wild Life (Protection) Amendment Act, 2022
IUCN	The International Union for Conservation of Nature
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
NDF	Non-Detriment Finding
WPA (1972)	The Wild Life (Protection) Act, 1972

#### The Wild Life (Protection) Act, 1972

The Wild Life (Protection) Act, 1972 is a central law enacted in India to provide comprehensive protection to wild animals, birds, and plants, and to regulate activities like hunting, trade, and habitat conservation. It serves as the foundation for wildlife conservation in the country.

#### The Wild Life (Protection) Amendment Act, 2022

The Wild Life (Protection) Amendment Act, 2022 strengthens wildlife protection in India by enhancing species classification, enforcement mechanisms, and alignment with international agreements like CITES.

The Wild Life (Protection) Amendment Act, 2022, in force since 1<sup>st</sup> April 2023, strengthens the legal framework for the protection of wild species and aligns Indian law with international obligations under CITES. This includes 18 elasmobranch species in Schedule I and 8 species in Schedule II, providing them legal protection.

#### Schedule I

Species listed here get the highest level of protection

- $\rightarrow$  No hunting, trade, or harm allowed
- $\rightarrow$  Violations attract strictest penalties

### Schedule II

Species that get a lesser degree of protection compared to Schedule I

 $\rightarrow$  Still protected, but penalties for violations are relatively lighter

### Schedule III

Lists protected plant species

 $\rightarrow$  Cultivation, collection, or trade of these plants is regulated or prohibited

### Schedule IV

Covers CITES-listed species (Appendices I, II, III)

- $\rightarrow$  Regulates international trade in line with global conservation rules
- $\rightarrow$  Includes both wild animals and plants

#### **Penalties**:

Imprisonment 3–7 years, fine not less than ₹25,000, and up to ₹1 lakh or more for repeat offences

#### International Union for Conservation of Nature (IUCN)

The International Union for Conservation of Nature (IUCN) is a global organization that works to conserve nature and ensure the sustainable use of natural resources. It maintains the IUCN Red List, the world's most comprehensive inventory of the conservation status of species.

### **IUCN Red List Categories**

**EX – Extinct** No known individuals remaining anywhere in the world

**EW - Extinct in the Wild** Survives only in captivity or cultivation; no individuals left in their natural habitat

**CR – Critically Endangered** Faces an extremely high risk of extinction in the wild **EN – Endangered** At a very high risk of extinction in the near future

**VU – Vulnerable** At a high risk of extinction if threats continue

**NT - Near Threatened** Close to qualifying as threatened; may be at risk soon **LC – Least Concern** Widespread and abundant; lowest extinction risk

**DD - Data Deficient** Not enough information to assess the species' risk

NE – Not Evaluated Species has not yet been assessed by IUCN

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

CITES regulates international trade of wild species to ensure it does not threaten their survival.

Species are listed in three Appendices:

- Appendix I Species threatened with extinction; commercial trade is generally prohibited
- Appendix II Species not necessarily threatened with extinction but may become so unless trade is controlled
- Appendix III Species listed by a country seeking international cooperation to control trade

#### **Non-Detriment Finding (NDF)**

Non-Detriment Finding (NDF) is a scientific assessment required under CITES to ensure that international trade in a species does not harm its survival in the wild.

It is conducted by the Scientific Authority of a country before granting export permits for species listed in CITES Appendix I or II.

#### Positive NDF

Trade will not harm the survival of the species  $\rightarrow$  Export may be allowed with proper permits

#### • Positive with Conditions

Trade may be allowed, but only under specific conditions to ensure sustainability → Export allowed with safeguards

#### Negative NDF

Trade would be detrimental to the species  $\rightarrow$  Export is not permitted

#### • Not Required/ Not Applicable

NDF is not needed for species in Appendix I or for domestic use (non-international trade)

The species is protected under various schedules of The Wild Life (Protection) Amendment Act, 2022, where hunting and trade are already prohibited by law.

ICAR-Central Marine Fisheries Research Institute is the recognized Scientific Authority of CITES in India for marine species and their trade regulation.

> For further information, Please contact Director, ICAR-CMFRI, Kochi E-mail:director.cmfri@icar.org.ir www.cmfri.org.in



This guide presents a concise compilation of elasmobranch species listed under the Wild Life (Protection) Amendment Act, 2022, along with their protection status, CITES status, IUCN Red List category, and Non-Detriment Finding (NDF) status. Each species entry is supported by clear illustrations to enable accurate field-level identification and help officials determine protection status and applicable legal schedules. The booklet serves as a practical tool for fisheries managers, enforcement agencies and frontline officers involved in monitoring, trade regulation, and curbing illegal trafficking. It also holds academic value, aiding researchers and students in understanding the current legal and conservation frameworks governing elasmobranchs in India. By integrating key national and international conservation indicators in one accessible format, the guide enhances awareness, supports effective enforcement, and promotes informed decision-making for the protection of these ecologically significant marine species.

