Fact Sheet

THRESHER SHARK
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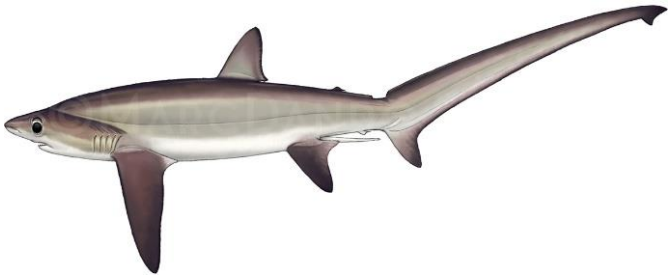
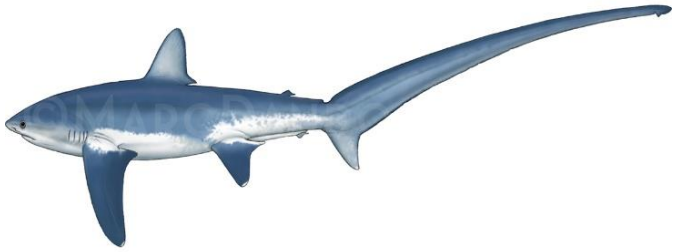
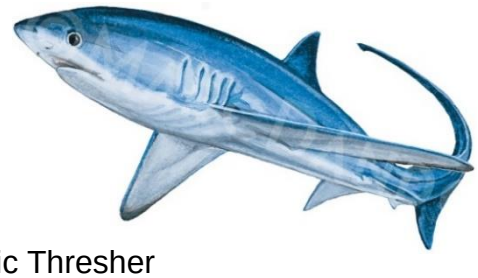


Bigeye Thresher
Alopias superciliosus



Common Thresher
Alopias vulpinus



Pelagic Thresher
Alopias pelagicus

THRESHER SHARK

Class: *Chondrichthyes*
Order: *Lamniformes*
Family: *Alopiidae*
Species: *Alopias superciliosus* – Bigeye Thresher
Alopias vulpinus – Common Thresher
Alopias pelagicus – Pelagic Thresher

This fact sheet was produced by the Advisory Committee of the Memorandum of Understanding on the Conservation of Migratory Sharks (Sharks MOU).

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1. Biology

All three species of Thresher Shark belong to: the genus *Alopias,* and include the Pelagic (*Alopias pelagicus*); Bigeye (*Alopias superciliosus*) and Common (*Alopias vulpinus*) Thresher. All three species have biological characteristics that result in low productivity, Bigeye Thresher, in particular, is one of the less productive pelagic shark species, due to the very low fecundity (2 pups per cycle) and late maturity (12–13 years for females). Several demographic studies have ranked this species as one of the least productive elasmobranchs (Cortes 2002). In contrast, *A. vulpinus*, which attains the largest size, is the fastest growing and earliest-maturing of the three species (Smith et al. 2008).

2. Distribution

Bigeye Thresher and Common Thresher Shark occur circumglobally, while Pelagic Thresher Shark is restricted to the Indian and Pacific Oceans. All three species are epipelagic, occurring in the upper parts of the water column, but their depth range can extend to deeper (500–750 m) water. Common and Pelagic Thresher Shark are often associated with shelf sea habitats and may occur in shallower water close to land., while Bigeye Thresher Shark is typically more oceanic Their latitudinal distributions are restricted mainly to tropical and warm temperate waters, with Common Thresher Shark also extending into higher latitudes (Compagno 2001).

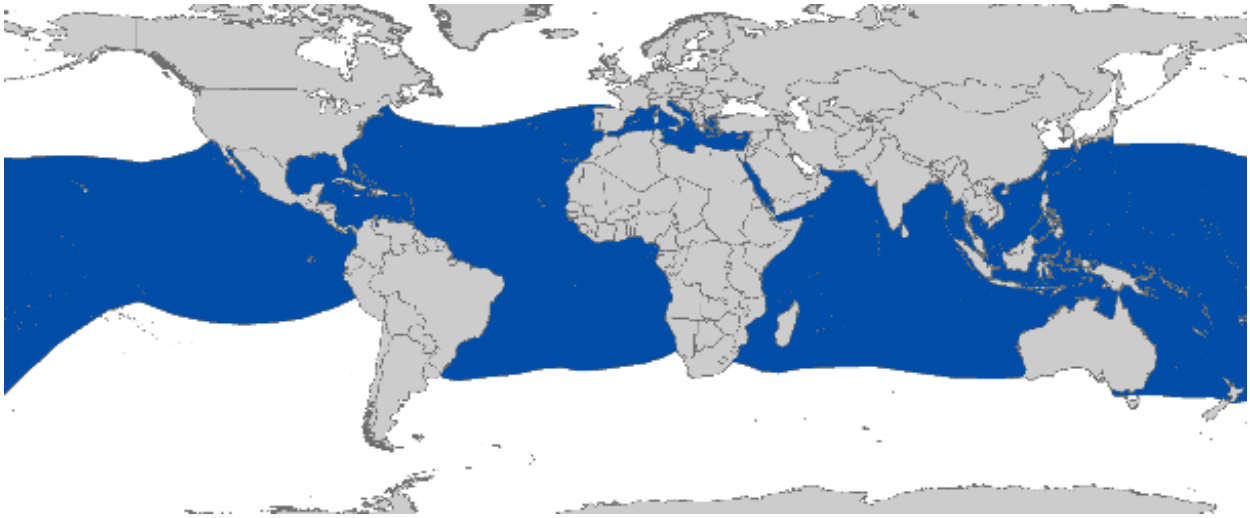

Figure 1: Distribution of Bigeye Thresher Shark (*Alopias superciliosus*), courtesy of IUCN [i] .

[i] For Figures 1–3, maps obtained from the International Union for Conservation of Nature (IUCN) on 20 November 2017.

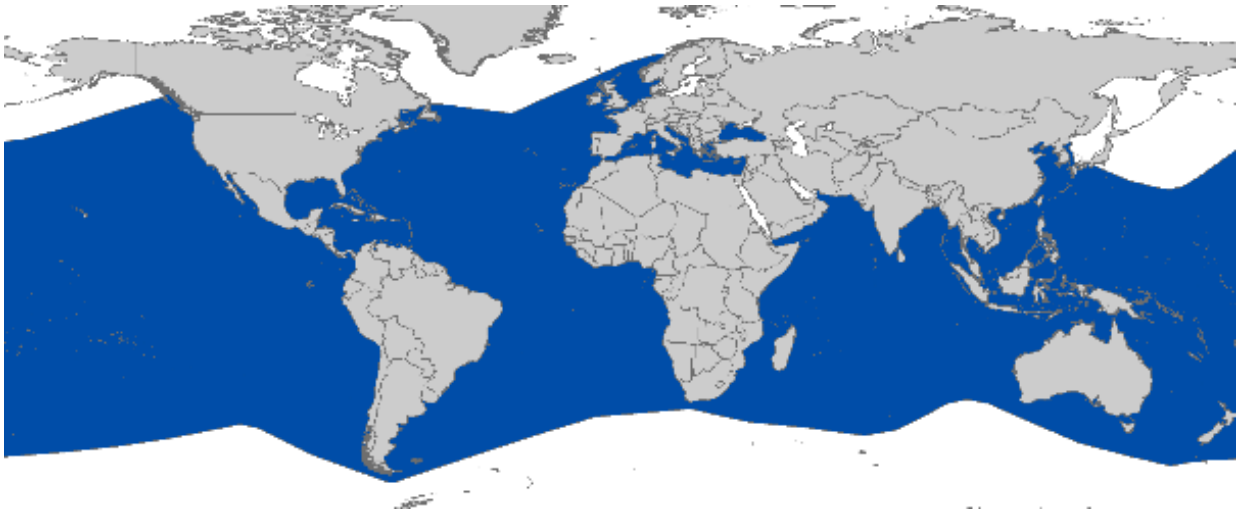

Figure 2: Distribution of Common Thresher Shark (*Alopias vulpinus*), courtesy of IUCN.

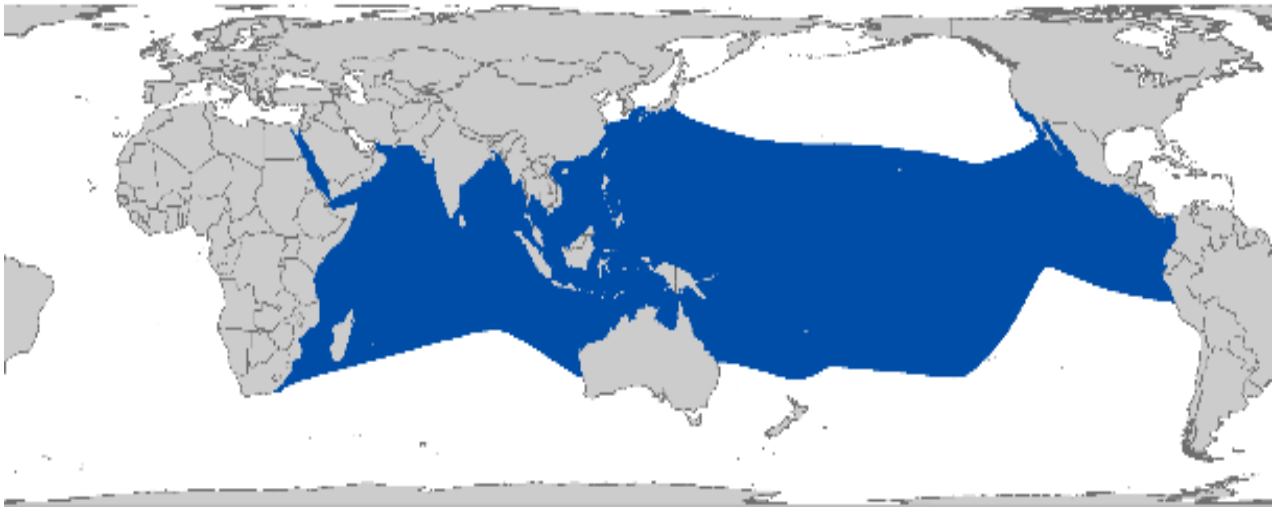

Figure 3: Distribution of Pelagic Thresher Shark (*Alopias pelagicus*), courtesy of IUCN.

3. Critical Sites

Critical sites are those habitats that may have a key role for the conservation status of a shark population, and may include feeding, mating, pupping, overwintering grounds and other aggregation sites, as well as corridors between these sites such as migration routes. Critical sites have not been accurately defined and delineated for these species in all areas, but some potentially important grounds may be found in the tropical Atlantic (Fernandez-Carvalho et al. 2015), Southern California Bight (Cartamil et al 2010) and the waters south of the Iberian Peninsula (Moreno and Morón 1992).

4. Population Status and Trends

Most information available on the population status and trends in Thresher Sharks consists of fisheries data that, in many cases is not species-specific. The stock structures of all Thresher Sharks have not been defined, due to a lack of appropriate data. The current IUCN Red List status for the global populations of all three species is 'Vulnerable' (Amorim et al. 2009; Goldman et al. 2009; Reardon et al. 2009). More details of the population status and trends can be found in the IUCN assessments[ii].

5. Threats

- **Fisheries:** Thresher Sharks are commonly taken on longlines, in fixed bottom and pelagic gillnets, in trawls, and purse seine (Maguire 2006), with many coastal and oceanic pelagic fisheries supplying domestic markets with meat. Despite this, catch and effort data are incomplete. Thresher Sharks are also taken in recreational fisheries in some areas.
- **International trade:** The underlying driver of the targeting, retention of bycatch, and international trade in Thresher Sharks consists of the demand for their fins and meat. Thresher sharks have been found to account for approximately for 2–6% of sharks in the Hong Kong market (Clarke et al. 2006a; Clarke et al. 2006b). Recent updates using fin trimmings estimate thresher shark make less than 1% of the Hong Kong markets (Fields et al. 2018).

6. Key Knowledge Gaps

- Data on population size, distribution, connectivity and trends are widely lacking for all three species. Especially limited knowledge exists on the Pelagic Thresher throughout its range (Reardon et al. 2009).
- Reliable information about harvest and demand levels are scarce.
- Little is known about the characteristics and locations of important habitats (which may include parturition and nursery areas, overwintering grounds, feeding grounds, mating grounds and migration routes).

[ii] The IUCN Red List of Threatened Species uses a set of criteria to evaluate the extinction risk of species and subspecies. For more information see https://www.iucnredlist.org/.

7. Key Management and Conservation Gaps

- Target fisheries on Thresher Shark are prohibited in EU waters and in ICCAT[iii] and WCPFC[iv] fisheries, whereby there is no-retention agreed under ICCAT for bigeye thresher and under IOTC[v] for all species.
- Stock assessments have been conducted only for Common Thresher in the east Pacific (Teo et al. 2016).
- Critical sites have not been fully identified and delineated.
- Fishery data (landings, discards, size frequency, catch and effort) are lacking in most areas and is rarely provided at a species-specific level.

8. Suggestions for Conservation and Management Action

a) Incorporate conservation measures for Thresher Sharks into national legislation of all Parties/Signatories (in compliance with the obligations of the for the Appendix I listed species of CMS [vi] and in line with the objectives of the Sharks MOU)

- Implement relevant international measures (e.g. CMS and RFMOs[vii]).
- Consider adopting fins attached measures to effectively prohibit finning.

b) Improve the understanding of Thresher Sharks through strategic research, monitoring and information exchange

- Identify critical sites of Thresher Sharks' abundance and seasonality.
- Address data gaps in biological knowledge (life-history parameters) of all Thresher Sharks.
- Further investigate post-release survivorship of threshers to fully access the efficiency of the currently in place no-retention measures in several RFMOs, as well as to inform improved handling and release protocols.
- Enhance or develop where necessary collection of fishery data (including landings, discards, size frequency, catch and effort where needed).
- Develop stock assessments in cooperation with RFMOs for all three species.

[iii] The International Commission for the Conservation of Atlantic Tunas (ICCAT).
[iv] The Western and Central Pacific Fisheries Commission (WCPFC).
[v] The Indian Ocean Tuna Commission (IOTC)
[vi] Convention on the Conservation of Migratory Species of Wild Animals (CMS).
[vii] Regional fisheries management organizations (RFMOs).

c) Improve multilateral cooperation among regions and RFBs[viii]

- Support the introduction of appropriate management and conservation measures for Thresher Sharks at international and regional fora (e.g. Co-sponsor proposals/resolutions within multilateral agreements).
- Promote better regional cooperation between RFMOs and RFBs (e.g. data-sharing or involvement in the Kobe process[ix]).
- Support development and implementation of appropriate management plans for Thresher Sharks.
- Identify synergies with other Range States/stakeholders to support coordinated and resource-effective data collection, research and conservation programs.

d) Identify the effective approaches to reduce bycatch and improve survivorship of Thresher Sharks

- Including gear modifications e.g. hook and trace type, and fishing practices e.g. soak time and safe release handling guidelines.

e) Raise awareness about the threats to Thresher Sharks

- Inform the public about the need of shark conservation via educational, social media and local outreach campaigns.

[viii] Regional Fishery Bodies (RFBs).
[ix] The joint tuna Regional Fisheries Management Organization (tRFMO), also known as the Kobe process seeks to harmonize the activities of the five tuna regional fisheries management organizations. For more information see http://www.tuna-org.org.

9. Legal Instruments

Instrument:	Description:	Species:
Barcelona Convention Barcelona Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean	**Annex III**: Species whose exploitation is regulated; Parties shall ensure the favourable state of conservation of these species by taking all appropriate measures, in cooperation with competent international organizations.	*A. vulpinus*
CCSBT Commission for the Conservation of Southern Bluefin Tuna	CCSBT encourages both Members and Cooperating Non-Members to comply with a variety of binding and non-binding measures in order to protect species ecologically related to Southern bluefin tuna, including sharks.	*A. vulpinus* *A. pelagicus* *A. superciliosus*
CITES Convention on International Trade in Endangered Species of Wild Fauna and Flora	**Appendix II**: Species not necessarily threatened with extinction, but in which trade must be controlled in order to avoid utilization incompatible with their survival.	*A. vulpinus* *A. pelagicus* *A. superciliosus*
CMS Convention on the Conservation of Migratory Species of Wild Animals	**Appendix II**: Migratory species that have an unfavourable conservation status and need or would significantly benefit from international cooperation; CMS Parties shall endeavour to conclude global or regional agreements to benefit these species.	*A. vulpinus* *A. pelagicus* *A. superciliosus*
EU European Union	**Council Regulation (EC) No 1185/2003:** establishes a general prohibition of the practice of 'shark finning', whereby a shark's fins are removed and the remainder of the shark is discarded at sea.	*A. vulpinus* *A. pelagicus* *A. superciliosus*

Instrument:	Description:	Species:
	Council Regulation (EU) 2018/120: prohibits for Union vessels in the ICCAT region to retain on board, tranship or land any part or whole carcass of bigeye Thresher Sharks (*Alopias superciliosus*) in any fishery and to undertake a directed fishery for species of thresher sharks of the Alopias genus.	*A. vulpinus* *A. pelagicus* *A. superciliosus*
FAO Food and Agriculture Organization	**IPOA Sharks:** International Plan of Action for Conservation and Management of Sharks based on which states should adopt and implement a national plan of action for conservation and management of shark stocks (NPO Sharks) if their vessels conduct directed fisheries for sharks or if their vessels regularly catch sharks in non-directed fisheries.	*A. vulpinus* *A. pelagicus* *A. superciliosus*
GFCM General Fisheries Commission for the Mediterranean	**Rec. GFCM/36/2012/3**: Shark species listed under Annex III of the Barcelona Convention cannot be retained on board, transshipped, landed, transferred, stored, sold or displayed or offered for sale and must be released unharmed and alive to the extent possible.	*A. vulpinus*
IATTC Inter-American Tropical Tuna Commission	**Res. C-16-01:** Amendment of resolution C-15-03 on the collection and analysis of data on fish-aggregating devices. **Res. C-16-04**: Amendment to resolution C-05-03 on the conservation of sharks caught in association with fisheries in the eastern Pacific Ocean. **Res. C-16-05:** Resolution on the management of shark species.	*A. vulpinus* *A. pelagicus* *A. superciliosus*

Instrument:	Description:	Species:
ICCAT International Commission for the Conservation of Atlantic Tunas	**Res. 95-02:** Cooperation with FAO to study status of stocks and shark by-catches. **Res. 03-10:** Resolution by ICCAT on the sharks fishery. **Rec. 04-10:** Recommendation by ICCAT concerning the conservation of sharks caught in association with fisheries managed by ICCAT. **Rec. 07-06:** Supplemental recommendation by ICCAT concerning sharks. **Rec. 09-07:** Recommendation by ICCAT on the conservation of thresher sharks caught in association with fisheries in the ICCAT Convention Area **Rec. 11-10:** Recommendation by ICCAT on information collection and harmonization of data on bycatch and discards in ICCAT fisheries. **Rec. 13-10:** Recommendation on Biological Sampling of Prohibited Sharks Species by Scientific Observers.	*A. vulpinus* *A. pelagicus* *A. superciliosus*
IOTC Indian Ocean Tuna Commission	**Res. 12/09:** On the conservation of Thresher Sharks (Family *Alopiidae*) caught in association with fisheries in the IOTC Area of Competence. **Res. 13/06:** On a scientific and management framework on the conservation of sharks species caught in association with IOTC managed fisheries. **Res. 15/09:** On a fish aggregating devices (FADs) working group. **Res. 17/05:** On the conservation of sharks caught in association with fisheries managed by IOTC. **Res. 17/07:** On the prohibition to use large-scale driftnets in the IOTC Area.	*A. vulpinus* *A. pelagicus* *A. superciliosus*

Instrument:	Description:	Species:
	Res 17/08: Procedures on a FADs Management Plan including limitation on number of FADs, more detailed specifications of catch reporting from FAD sets, and development of improved designs to reduce incidence of entanglement of non-target species.	
Sharks MOU Memorandum of Understanding on the Conservation of Migratory Sharks	**Annex 1**: Signatories should endeavor to achieve and maintain a favorable conservation status for these species based on the best available scientific information and taking into account their socio-economic value.	*A. vulpinus* *A. pelagicus* *A. superciliosus*
UNCLOS United Nations Convention on the Law of the Sea	**Annex I**: States whose nationals fish in the region for the highly migratory species listed in Annex I shall cooperate directly or through appropriate international organizations to ensure the conservation and optimum utilization of such species throughout the region, both within and beyond the exclusive economic zone.	*A. vulpinus* *A. pelagicus* *A. superciliosus*
WCPFC Western and Central Pacific Fisheries Commission	**CMM 2008-04:** Conservation and management measures to prohibit the use of large sale driftnets on the high seas in the Convention Area. **CMM 2009-02:** Conservation and management measures on the application of high seas FAD closure and catch retention. **CMM 2010-07:** Conservation and management measures for sharks. **CMM 2014-05:** Conservation and management measures for sharks.	*I A. vulpinus* *A. pelagicus* *A. superciliosus*

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About the Sharks MOU

The Memorandum of Understanding on the Conservation of Migratory Sharks (Sharks MOU) is the first global instrument for the conservation of migratory species of sharks, rays, skates and chimaeras.

The Sharks MOU is an instrument of the Convention on the Conservation of Migratory Species of Wild Animals (CMS) that engages all relevant stakeholders in addressing threats to migratory species in concert with all other aspects of wildlife conservation and management.

Date of Publication: November 2019

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