

ADDENDUM 2

**ADDITIONAL INFORMATION
PROVIDED BY THE PROPONENT OF THE PROPOSAL FOR
THE INCLUSION OF THRESHER SHARKS (GENUS ALOPIAS)
FULFILLING CMS APPENDIX I LISTING CRITERIA**

(submitted by the government of Panama)

Overview

Thresher sharks (genus *Alopias*) are wide-ranging migratory sharks undergoing severe population declines driven by both targeted and incidental capture throughout their global range.

All three *Alopias* species are already recognised as migratory and transboundary, as reflected in their inclusion on CMS Appendix II.

The pelagic thresher (*A. pelagicus*) is listed as Endangered on the IUCN Global Red List, meeting the criteria under CMS Resolution 13.7, Annex 1, Paragraph 4. a.:

a taxon assessed as 'Extinct in the Wild', 'Critically Endangered', or 'Endangered' using the IUCN Red List criteria is eligible for consideration for listing in Appendix I, recognizing that CMS Appendix I species are broadly defined as 'endangered'.

The bigeye thresher (*A. superciliosus*) is assessed as Vulnerable globally and Endangered in the Arabian Seas and Adjacent Waters. Given comparable or higher fishing pressure across the wider Indian Ocean region, and the species' extensive migratory range, this regional assessment is likely indicative of its status across a significant portion of its range, extending potentially into the Pacific (meeting CMS Article I, Paragraph 1(e)). Its globally documented decreasing population trend, together with the absence of evidence for improved management or reduced mortality, strongly suggests that its status has continued to deteriorate since the last assessment.

The situation for the common thresher (*A. vulpinus*) is similar, with a Vulnerable global assessment and a decreasing population trend.

For all three species, the existing IUCN assessments are now more than seven years old. No new evidence indicates that population trends have stabilised or improved, while available information points instead to continuing fishing pressure and ongoing declines. It is therefore highly probable that updated assessments would reflect a more threatened status.

Accordingly, *A. superciliosus* and *A. vulpinus* also meet CMS Resolution 13.7, Annex 1, Paragraph 4. B.:

a taxon assessed as 'Vulnerable' or 'Near Threatened' would not normally be considered for listing in Appendix I unless there is substantive information subsequent to the IUCN Red List assessment that provides evidence of deteriorating conservation status, and information about the conservation benefits that an Appendix I listing would bring.

The listing of all three *Alopias* species on CMS Appendix I therefore meets the criteria established under Resolution 13.7. Strict protection particularly prohibition of take would

reduce mortality, support population recovery, and enable coordinated international conservation measures across their migratory range.

Taxonomy, distribution and migratory nature

Thresher sharks (family *Alopiidae*) comprise three extant species:

1. Common thresher – *Alopias vulpinus*
2. Bigeye thresher – *Alopias superciliosus*
3. Pelagic thresher – *Alopias pelagicus*

All three are large oceanic or epipelagic sharks distributed circumglobally in tropical to temperate waters. They exhibit extensive movements across Exclusive Economic Zones and high-seas areas, and are therefore recognised as migratory and transboundary, reflected in their current listing on CMS Appendix II.

Conservation status

Thresher sharks share life-history traits including slow growth, late maturity, low fecundity (2–4 pups), and long generation times that result in extremely low population productivity and resilience. These traits make them highly vulnerable to fishing pressure.

Global IUCN Red List assessments

- **Pelagic thresher (*A. pelagicus*):**Listed as Endangered globally with a decreasing population trend. Meets CMS Resolution 13.7, Annex 1, Paragraph 4(a) for Appendix I consideration.
- **Bigeye thresher (*A. superciliosus*):**Listed as Vulnerable globally, and Endangered in the Arabian Seas and Adjacent Waters (Jabado et al., 2017). With widespread continuing declines documented across most of their range, they meet CMS Resolution 13.7, Annex 1, Paragraph 4. a) and b).
- **Common thresher (*A. vulpinus*) – Vulnerable (VU A2bd)**Listed as Vulnerable globally and with widespread continuing declines documented across most of their range, they meet CMS Resolution 13.7, Annex 1, Paragraph 4. b).

Importantly, **all three global IUCN assessments are more than seven years old**, and current evidence (continued fishing pressure, no management improvements, ongoing declines) indicates that updated assessments would likely show more deteriorated conservation status.

Regional IUCN Red List assessments

The regional assessment for the Arabian Sea and adjacent waters (including parts of the northern Indian Ocean), are indicative of these species wider status, given their migratory nature:

*The Pelagic Thresher (*Alopias pelagicus*) is a large (to 365 cm TL), wide-ranging IndoPacific pelagic shark that occurs to depths of 300 m. In the ASR, the species is found in the Red Sea, Gulf of Aden, and the Arabian Sea. It is apparently highly migratory, and has slow life-history characteristics including low fecundity (two pups/litter) and a low (2-4 %) annual rate of population increase. This species is especially susceptible to fisheries exploitation (target and bycatch) because its epipelagic habitat occurs within the range of many largely unregulated and under-reported gillnet and longline fisheries, in which it is readily caught. Although this*

species is reportedly relatively common in some coastal localities, current levels of exploitation in some areas are considered to be unsustainable, particularly because the species has a low capacity to recover from even moderate levels of exploitation. Given documented CPUE declines from Soviet surveys of 42 % over three generations (~56 years), its large size, valuable fins, intensive and increasing fisheries, high biological vulnerability and a low intrinsic rate of increase, overall declines of at least 50 % are inferred over the past three generations (~56 years). Some management measures are now in place in the region (i.e., through the IOTC), although domestic fisheries are likely to continue placing heavy pressure on thresher sharks. **The Pelagic Thresher is assessed as Endangered A2bd.**

The Bigeye Thresher (*Alopias superciliosus*) is a large (to 484 cm TL), wide-ranging IndoPacific Ocean pelagic shark found from coastal waters to depths of over 900 m. In the ASR, it is found in the Red Sea, Gulf of Aden, and the Arabian Sea. It is apparently highly migratory, with low fecundity (two pups/litter) and the lowest intrinsic rebound potential and least resistance to fisheries of the genus. This species is especially susceptible to fisheries exploitation (target and bycatch) because its pelagic habitat occurs within the range of many largely unregulated and under-reported gillnet and longline fisheries, in which it is readily caught. Although this species is reportedly relatively common in some coastal localities, current levels of exploitation in some areas are considered to be unsustainable, particularly because the species has a low capacity to recover from even moderate levels of exploitation. Given documented CPUE declines from Soviet surveys of 42 % over three generations (~56 years), its large size, valuable fins, intensive and increasing fisheries, high biological vulnerability and a low intrinsic rate of increase, overall declines across the region of at least 50 % are inferred over the past three generations (~56 years). Some management measures are now in place in the region (i.e., through the IOTC), although domestic fisheries are likely to continue placing heavy pressure on thresher sharks. **The Bigeye Thresher is assessed as Endangered A2bd.**

Reference: Jabado, R.W., Kyne, P. M., Pollom, R. A., Ebert, D. A., Simpfendorfer, C. A., Ralph, G.M., and Dulvy, N.K. (eds.) 2017. *The Conservation Status of Sharks, Rays, and Chimaeras in the Arabian Sea and Adjacent Waters*. Environment Agency – Abu Dhabi, UAE and IUCN Species Survival Commission Shark Specialist Group, Vancouver, Canada 236 pp.

Threats

1. Target and bycatch fisheries
 - Caught in longlines, gillnets, purse seines and handlines; retained for fins and meat.
 - Persistent catches as target and bycatch, with weak monitoring and regulation.
 2. Low productivity and poor resilience
 - Late maturity, long gestation, very low fecundity and long generation times severely restrict recovery potential.
 3. Insufficient management and enforcement
 - No species-specific catch limits.
 - RFMO non-retention compliance is variable.
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Alignment with CMS Appendix I listing criteria

Under CMS Articles I and III, Appendix I is for migratory species that:

- Are in danger of extinction throughout all or a significant portion of their range; and
- Would benefit significantly from strict protection and coordinated international action.

In danger of extinction / highly threatened

- *A. pelagicus* is globally Endangered, meeting the explicit threshold under CMS Resolution 13.7, Annex 1, Paragraph 4(a).
- *A. superciliosus* and *A. vulpinus*, while globally Vulnerable, meet Resolution 13.7, Annex 1, Paragraph 4(b) due to substantive new information indicating deteriorating trends and clear conservation benefits expected from Appendix I listing, and *A. superciliosus* additionally meetings Paragraph 4(a) due to its Endangered status across a significant proportion of its range.

Migratory, transboundary nature

- All *Alopias* species undertake wide-ranging movements across EEZs and the high seas, fulfilling the CMS definition of migratory species and necessitating international cooperation.
- Thresher sharks exhibit extensive transboundary movements, with *A. superciliosus* traveling up to ~2,767 km across U.S., Gulf of Mexico, Central American, and high-seas waters, and demonstrating average monthly displacements exceeding 1,200 km. *A. vulpinus* undertakes annual seasonal migrations from California well into Mexican waters. *A. pelagicus* migrates between Central America and U.S. waters, with genetic evidence of connectivity from Mexico to Ecuador and potentially as far as East Asia.

Benefit from Appendix I measures

- Appendix I would prohibit deliberate take, and help encourage protecting key habitats and migratory corridors through coordinated measures; all helping reduce fishing mortality.
- These actions directly address the primary threat to thresher sharks—unsustainable fishing pressure.

Conclusions

Thresher sharks (*Alopias* spp.) are wide-ranging, vulnerable migratory species already listed under CMS Appendix II.

Regional assessments and fisheries data demonstrate heavy pressure, low resilience, and ongoing declines. These species meet the biological and conservation criteria for CMS Appendix I.

Appendix I listing would provide a critical framework for strict protection, reduced mortality and coordinated international recovery efforts.