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Alex Hofford/Greenpeace

Disappearing Silky and Thresher Sharks

Overfishing is taking its toll on many shark populations around the world. In general, sharks grow slowly, mature late, and produce few young over long lifetimes. That makes them especially vulnerable to overexploitation and slow to recover from depletion.

The demand for shark fins, meat, liver oil, and other products has driven declines worldwide. More than half of all shark and ray species are estimated to be threatened or near threatened with extinction due to overfishing.[1] Every year, about 100 million sharks are caught and killed in commercial fisheries, an unsustainable number.[2] Whether this catch is unintended, unwanted, or highly sought-after, the resulting effect on ocean ecosystems demands urgent action.

Until measures are in place to ensure that the targeted and incidental catch of sharks is sustainable, their capture in fishing gear should be avoided and they should be released alive when possible.

Silky, bigeye thresher, common thresher, and pelagic thresher sharks are in particular danger. Overfishing in targeted shark fisheries, by-catch in fishing gear targeting other species, and high levels of illegal and unregulated fishing have caused drastic reductions in their populations wherever they are found. International protection measures are piecemeal at best. Management measures need to catch up to the scale of the problems facing these sharks before it is too late.

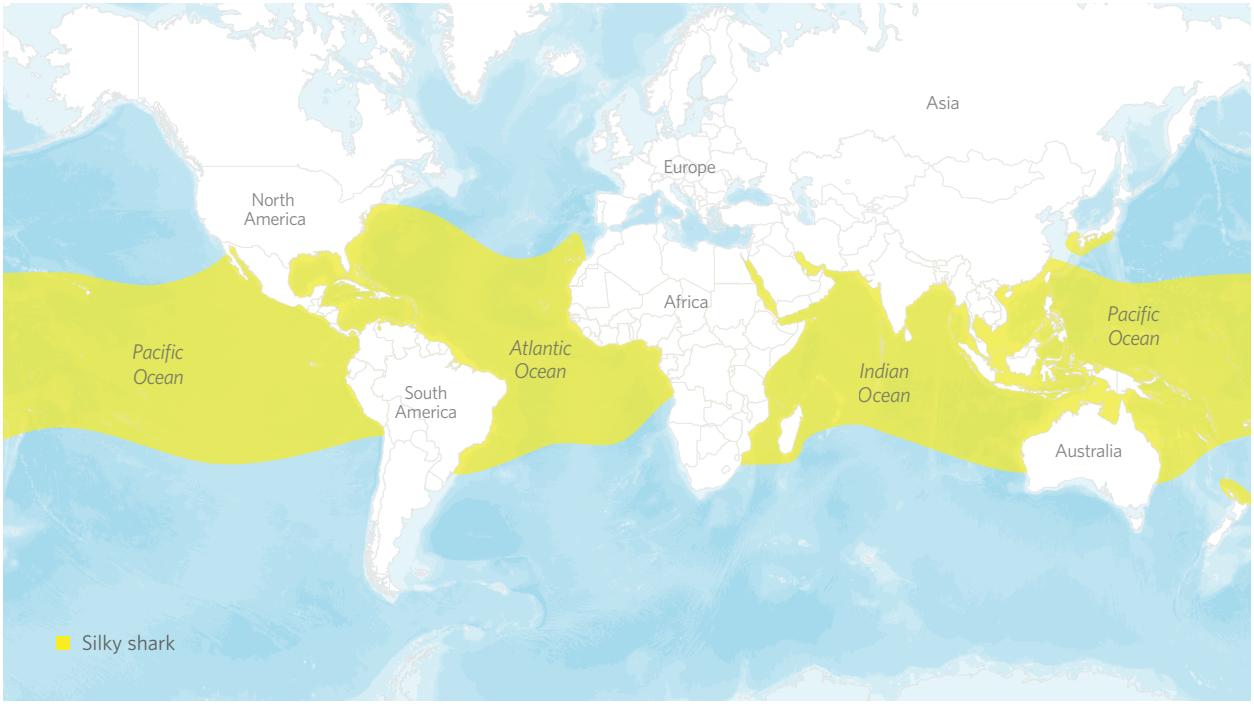
The international demand for shark fins is the principal driver behind the overexploitation of silky and thresher sharks. A 2006 study found that silky and thresher sharks represent about 3.5 percent and 2.3 percent, respectively, of the fins bought and sold annually in Hong Kong, the leading global shark fin trading hub.[3] This equates to millions of these sharks killed every year.[4]

> The lack of management action for these species has contributed to their dire condition. Silky and thresher shark populations have collapsed globally, with declines of more than 80 percent, and some up to 99 percent, in many regions. Action is needed now to save these species.

In Profile – Silky shark (*Carcharhinus falciformis*)

Distribution map

Globally, silky sharks are considered Near Threatened with extinction by the International Union for Conservation of Nature (IUCN).



Silky sharks:

- Vulnerable in eastern-central and south-eastern Pacific
- Near Threatened in south-western Atlantic
- Vulnerable in the north-western and western-central Atlantic
- Near Threatened in Indian Ocean and western-central Pacific

Source: IUCN

Examples of declines by region:

Pacific Ocean

-70% In the western and central Pacific, the stock has been estimated at 30 percent of the theoretical unfished biomass, a 70 percent decline.[5]

-80% Between 1994 and 2004, silky shark catch in the eastern Pacific purse seine fishery declined 60 to 80 percent.[6]

Indian Ocean

-90% Silky shark population declines in Maldivian fisheries could be as high as 90 percent over the last 20 years for the single stock in the Indian Ocean.[7]

The available information indicates that silky shark abundance has declined significantly over recent decades.[8]

Atlantic Ocean

-72% In the Atlantic, silky shark catch rates declined by 72 percent from 1992 to 1997.[9]

-90% In the Gulf of Mexico, abundance of silky sharks is estimated to have dropped more than 90 percent in the past 40 years.[10]

Key facts: Silky sharks

Silky sharks spend most of their lives in the deep water of the open ocean. As juveniles, they often shelter below or around floating objects. That makes them particularly vulnerable to becoming by-catch in industrial tuna fisheries that use such objects to attract and aggregate tuna for capture.[11] In the Indian Ocean, half a million silky sharks are accidentally killed in these fisheries every year.[12]

When mature, silky sharks feed on tuna and other pelagic fish species. As top predators, they play a crucial role in keeping commercially important fish stocks healthy.[13]

These sharks take as long as 10 years to mature and then have about six live pups after a yearlong pregnancy,[14] much like top land predators or great whales. This species cannot endure a high mortality rate from fishing.

IUCN Red List status

The silky shark (*Carcharhinus falciformis*) is listed as Near Threatened globally on the IUCN Red List of Threatened Species. It is Vulnerable in the eastern-central and south-eastern Pacific Ocean, Vulnerable in the north-western and western-central Atlantic Ocean, Near Threatened in the south-western Atlantic, and Near Threatened in the Indian Ocean and western-central Pacific.

Population

Worldwide, silky sharks are perhaps the most commonly caught shark species in tuna long-line and purse seine fishing gear.[15] This high level of fishing pressure has led to the rapid decline of silky sharks wherever they are found, as noted by scientific research, fisheries stock assessments, and ecological risk assessments conducted throughout their range.

According to a stock assessment by the Scientific Committee of the Western and Central Pacific Fisheries Commission, or WCPFC, significant drops have been recorded in silky shark populations throughout the western Pacific.[16] In the eastern Pacific, a stock assessment shows the population is in serious decline, especially in the south.[17] The Scientific Committee of the Indian Ocean Tuna Commission, or IOTC, notes that silky sharks have suffered significant declines in recent decades.[18] In the Atlantic, an ecological risk assessment ranks silky sharks as the one most vulnerable to overexploitation in long-line fisheries.[19]

Management gaps

Among regional fisheries management organizations, the International Commission for the Conservation of Atlantic Tunas, or ICCAT, and the WCPFC have adopted measures that prohibit all retention of silky sharks caught by the fisheries they manage.

> However there are no other regional or international protections for this species. Despite similar advice, the IOTC and the Inter-American Tropical Tuna Commission, or IATTC, have failed to act. That leaves silky sharks exposed to unregulated fisheries over much of their range, with no controls in these waters over the number that can be caught, sold, or traded every year.

A number of countries and territories have banned commercial fishing of all sharks within their waters, including Palau, the Maldives, Honduras, The Bahamas, the Marshall Islands, New Caledonia, the Cook Islands, and the British Virgin Islands. But apart from these measures and those put in place by ICCAT and WCPFC, silky sharks are largely unprotected.

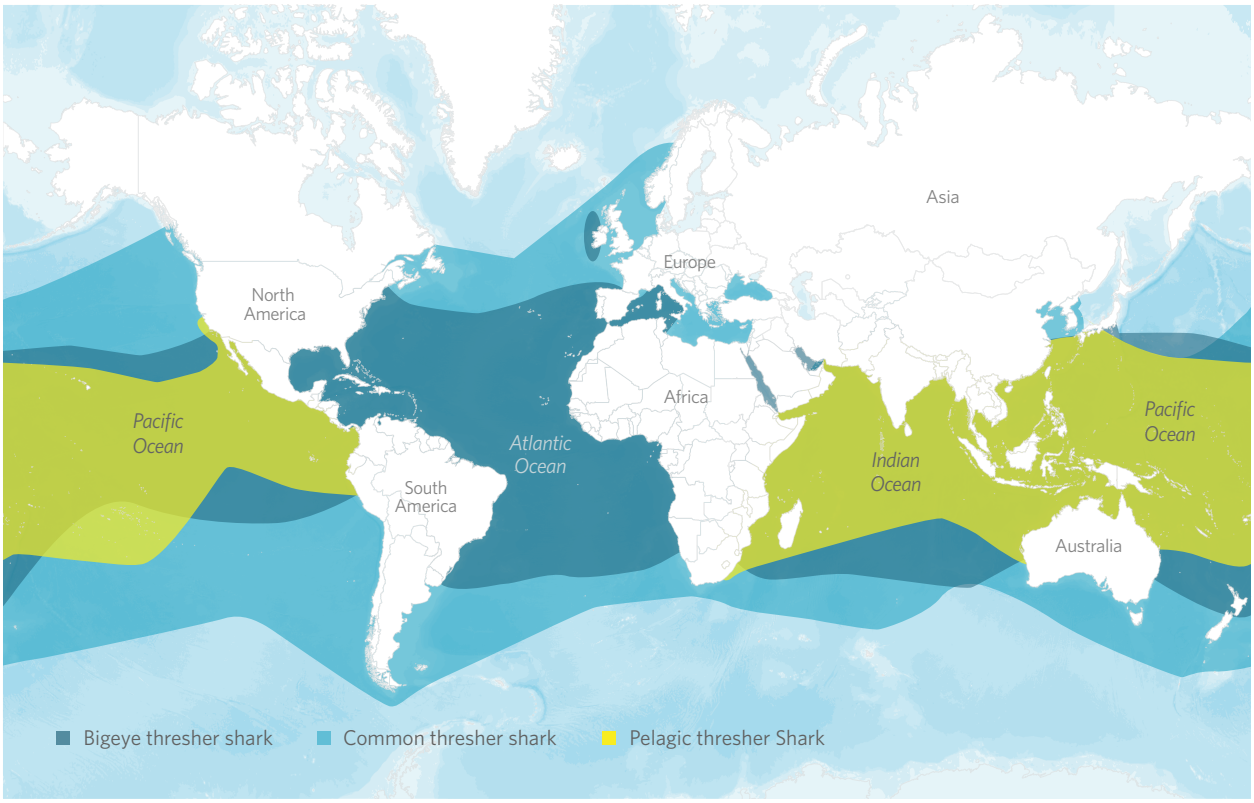
Jim Abernethy

Andy Murch/OceanwideImages.com

In Profile — Bigeye (*Alopias superciliosus*), common (*A. vulpinus*), and pelagic (*A. pelagicus*) thresher sharks

Distribution map

Globally, bigeye, common, and pelagic thresher sharks are considered Vulnerable by the IUCN.



Bigeye thresher:

- Endangered in north-western, western, and central Atlantic
- Near Threatened in south-western Atlantic

Common thresher:

- Near Threatened in the eastern-central Pacific
- Vulnerable wherever else it is found

Pelagic thresher:

- Vulnerable wherever it is found

Source: IUCN

Key facts: Bigeye, common, and pelagic thresher sharks

Thresher sharks are highly migratory and are found regularly in both the high seas and in waters closer to shore. They can be a major draw for scuba diving tourism.

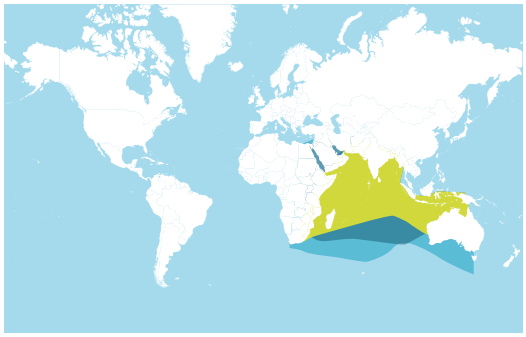
These sharks feed by stunning fish with their long, whip-like tails. But this unique attribute, perfect for hunting, can work against them. Many get caught by their tails in the industrial long-line fisheries that are contributing to their declines worldwide.

Examples of declines by region:

Pacific Ocean

-83% In the eastern-central Pacific, thresher populations have declined in abundance by 83 percent.[20]

Indian Ocean



~70-99% Little specific information is available, but declines are thought to be similar to those in the Pacific and Atlantic.[21]

Atlantic Ocean

-80% Observed declines in the north-western Atlantic suggest the thresher shark population has collapsed, with estimates for bigeye and common threshers indicating an 80 percent decrease since the late 1980s.[22]

-70% Studies in the south-eastern United States show severe declines, with indications that the population of bigeye threshers has dropped by 70 percent from historic levels.[23]

-99% Estimates indicate a decline of more than 99 percent in abundance of common thresher sharks in the Mediterranean Sea in just over 100 years.[24] This species is now considered scarce or rare as a result of fishing pressure.

Bigeye thresher sharks take as long as 13 years to mature and, when they do, have an average of two pups after a 12-month pregnancy.[25] This closely resembles top predators on land but not other fish species and has contributed to the global declines they have suffered.

IUCN Red List status

The bigeye thresher (*Alopias superciliosus*), common thresher (*A. vulpinus*), and pelagic thresher (*A. pelagicus*) are listed as Vulnerable globally on the IUCN Red List. Regionally, the bigeye thresher is Endangered in the north-western, western, and central Atlantic, and Near Threatened in the south-western Atlantic. The common thresher is Near Threatened in the eastern-central Pacific, with the pelagic thresher assessed as Vulnerable wherever it is found.

Population

High levels of fishing pressure globally have led to the rapid declines of thresher shark populations around the world, as noted by scientific research, fisheries stock assessments, and ecological risk assessments conducted throughout their range. Thresher sharks are frequently and unsustainably caught in offshore tuna and swordfish long-line and gill-net fisheries, and are also targeted in some parts of their range.[26]

The bigeye thresher has been identified as one of the shark species most at risk from fisheries in the Atlantic.[27] In the Indian Ocean, the pelagic and bigeye threshers have been identified as two of the shark species with the slowest reproductive rate and are highly susceptible to catch in long-line fisheries.[28]

Management gaps

Among regional fisheries organizations, ICCAT has adopted measures to protect the bigeye thresher and IOTC has taken action to protect all threshers. Both prohibit the retention of these sharks when caught by their fisheries.

> However, despite similar advice, WCPFC and IATTC—and ICCAT, for common thresher and pelagic—have failed to act, leaving these sharks vulnerable over much of their range. No other international or regional protections exist for these species. That exposes them to unregulated fisheries over much of their range, with no controls over the number that can be caught, sold, or traded every year.

A number of countries and territories have banned the commercial fishing of all sharks within their waters, including Palau, the Maldives, Honduras, The Bahamas, the Marshall Islands, Tokelau, New Caledonia, the Cook Islands, and the British Virgin Islands. But apart from these measures and those put in place by IOTC for all threshers and ICCAT for the bigeye thresher, these species are largely unprotected.

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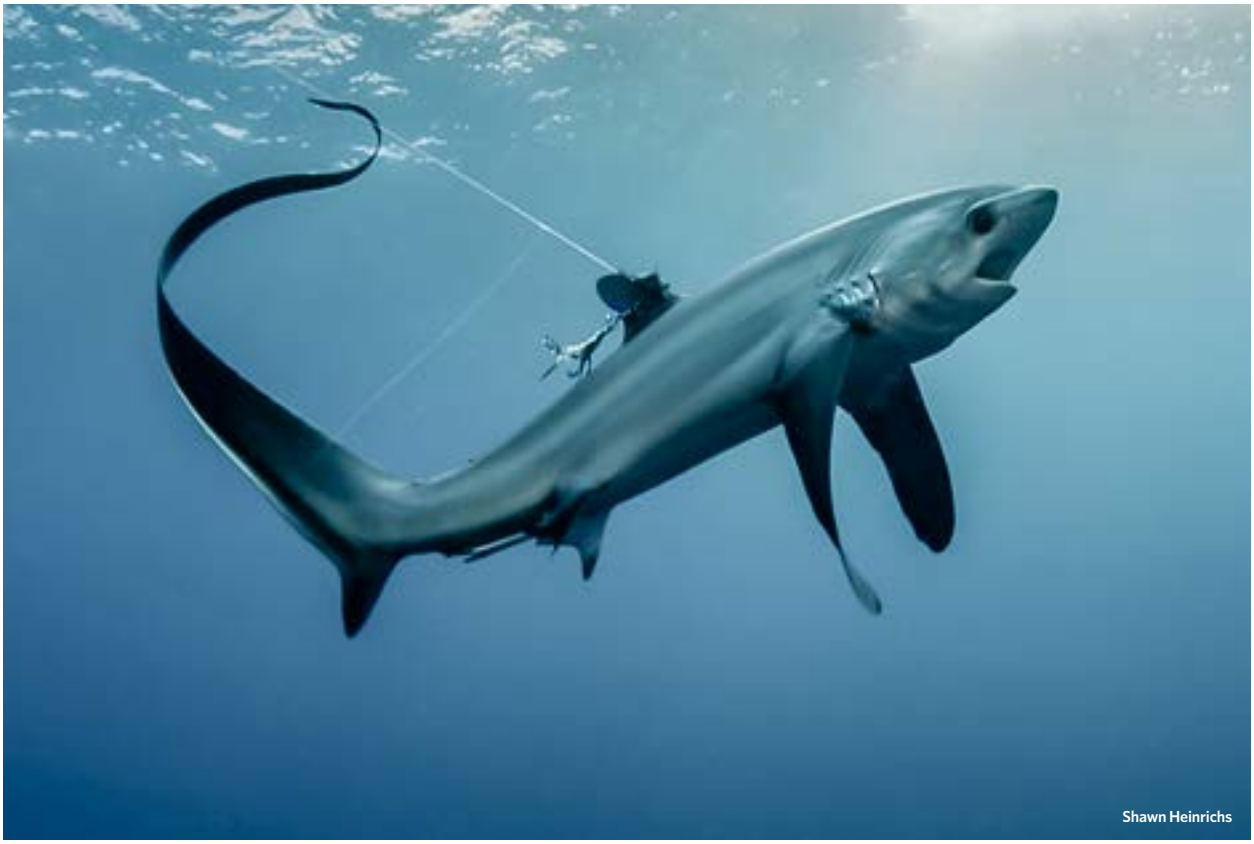
Demian Chapman



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Global shark management: the actions needed now

The Convention on International Trade in Endangered Species of Wild Fauna and Flora, or CITES, the Convention on the Conservation of Migratory Species of Wild Animals, or CMS, and regional fisheries management organization measures allow governments to work together to manage highly migratory species. Aided by effective domestic management, governments can join forces to halt the declines of at-risk shark species. Each of these international bodies and individual governments plays an important role, but none can solve the problems on its own. Efforts must be complementary, and all are needed to adequately protect these species.

CITES listings, which require that all international trade in listed species be legal and sustainable, can extend shark conservation measures to nearly all port and market States, as more than 90 percent of all countries are Parties to CITES. These listings have the ability to regulate international shark trade across the supply chain, which helps to ensure compliance with regional fisheries measures.

While it is critical to control the trade of sharks to ensure international demand isn't driving overexploitation, controls on the number of sharks killed annually are urgently needed wherever sharks are caught. Regional fisheries management organizations have the ability to meet this need by controlling targeted fishing for sharks and adopting measures to mitigate shark by-catch.

For migratory sharks, which cross the high seas and national waters of different States, CMS listings can facilitate closer collaboration among countries to tackle the most pressing issues, such as unsustainable catch and trade across migratory shark species' wide ranges.

All countries should consider implementing strong domestic measures that complement international and regional management to ensure that shark species are protected wherever they migrate.

> Successful conservation and management of sharks requires a wide range of complementary measures. Many sharks are highly migratory species that are caught both within national jurisdictions and on the high seas, and they are traded extensively internationally.

Conclusion

Although shark populations are in decline, it is not too late to reverse that trend. Increased international collaboration and protections can help these populations rebound.

Sharks have been an essential part of the marine ecosystem for more than 400 million years. Protecting their populations will take a true global commitment. If governments can come together to conserve sharks, and organizations such as CITES and CMS, along with regional fisheries management organizations, can function effectively, such efforts will leave a lasting legacy of healthy populations of these iconic species. That will help ensure abundant, productive marine ecosystems and oceans.

Endnotes

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