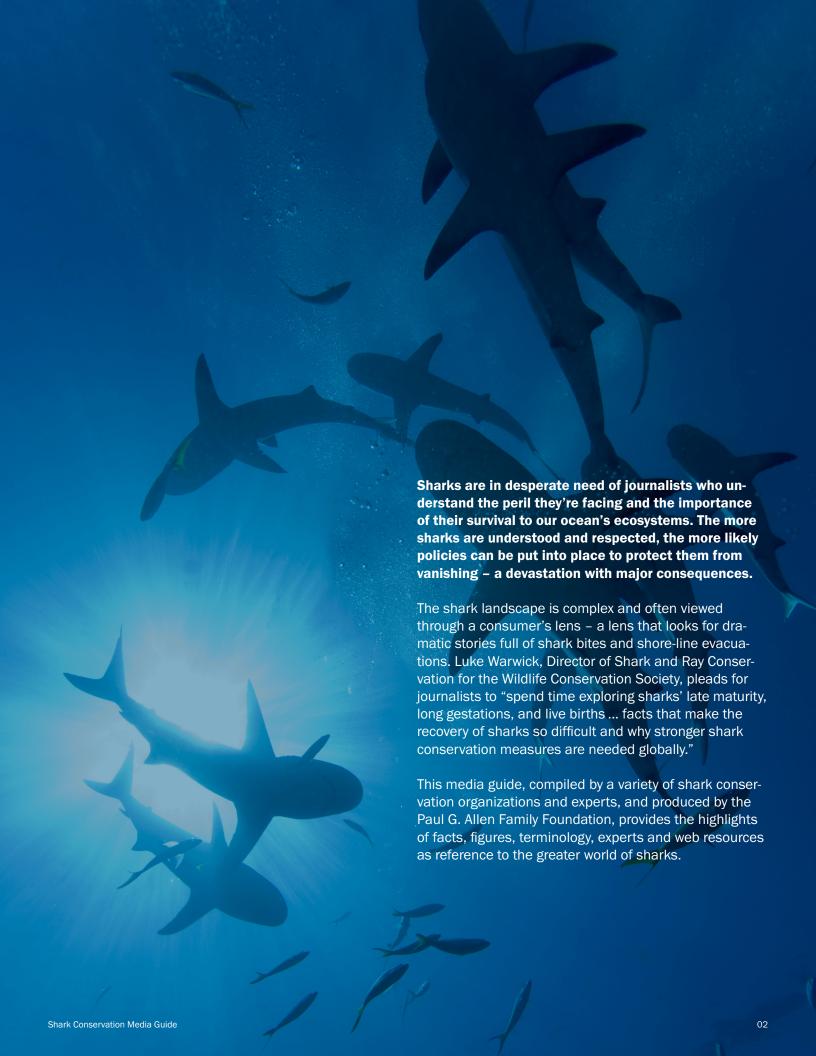


For more information including photo and video assets and connection to shark experts, contact the press team at the Paul G. Allen Family Foundation: press@pgafamilyfoundation.org.

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Global Shark Status, Trends, and Facts

Status and Trends

Biodiversity loss and threat of extinction

The world is facing a biodiversity crisis, with scientists predicting that we are on track to reach a tipping point in 10 years, where reversing species losses will no longer be possible. To combat this, over 100 governments and billions of dollars are set to be invested in establishing marine protected areas (MPAs) over the next decade. Over half of shark and ray species are threatened or near threatened with extinction. Over the last century, fisheries have had a massive cumulative impact on sharks and this threat has been compounded by habitat loss and climate change. Extinction threats are even higher in coastal habitats where 75% of threatened species occur. Currently, sharks are one of the most threatened taxa in the world, second only to amphibians.

Shark population and biodiversity loss have widespread and significant effects on both coastal and high seas ecosystems. Sharks are top, sometimes apex predators, and play a key role in maintaining healthy ecosystems just as predators do in terrestrial systems. Loss of shark populations, especially among those that act as top predators, have been linked to wider ecosystem imbalance and eventual decline in ecosystem health and biodiversity.

Shark conservation and protection

With the recent global commitment to protect 30% of the world's ocean and coastal waters by 2030 (30x30), governments around the world will now need to triple the volume of protected areas in their waters to meet this goal. Such a rapid expansion in marine protections is needed to combat the rapid loss of marine biodiversity and habitat destruction—but without proper guidance, management plans, and implementation, opportunities could be missed to maximize the conservation and biodiversity benefits that effective MPA designations can provide.

When implemented properly, MPAs have been shown to be an effective tool for shark conservation. When sharks are included in MPA management plans, populations are larger and more abundant than in the surrounding areas where no shark protections occur. As the world increasingly looks to the development of MPAs as a key tool to tackle the rising biodiversity crisis, it is important that sharks and rays are included in these plans: effective MPA management can be directly linked to population recovery, yet these animals have largely been overlooked in the vast majority of designated MPAs.

Marine protected and conserved areas are one of the critical tools conservationists and governments are using to save sharks and rays globally. Sweeping fisheries management is needed to prevent sharks from going extinct. Ensuring that 30x30 initiatives properly and adequately protect sharks is a once in a lifetime chance to protect the habitats most important to these species.

Sharks' critical role in the ecosystem

Sharks should be regarded as keystone or flagship species (similar to jaguars or wolves on land) in any MPA or 30x30 work, but currently less than 2% of MPAs properly manage them. Given their vulnerability to overfishing and highly threatened status, shark populations will continue to decline even if 30x30 is successfully achieved. Should this happen, given sharks' wide and varied role in ecosystems, the trophic cascade of their loss could have significant consequences for global biodiversity restoration efforts.

But this doesn't have to be the case. Prioritizing shark management is a cost-effective way to achieve biodiversity and ecosystem restoration goals. By managing around vulnerable, keystone species, restricted fishing activities will naturally reduce mortality of more than just sharks. By doing so, MPAs across the world can enhance the biodiversity outcomes of their 30x30 initiatives.



Facts and Figures

On sharks

Sharks and rays are one of the most endangered groups of animals on the planet. According to the IUCN Red List of Threatened Species, over one third of shark species are threatened with extinction.

There are more than 1,000 species of sharks and rays. Of them, only 146 are protected by CITES trade agreements. Only the seven species of sawfishes are protected under Appendix I, which is essentially a ban on international trade. All other species are protected under Appendix II, which allows regulated trade.

Approximately 500 species of sharks and rays are traded internationally for their fins and meat.

At least 100 million sharks are killed in commercial fisheries each year, over twice what scientists estimate to be sustainable. This is mainly driven by demand in the international trade for shark fins and meat.

For decades, open ocean fisheries management bodies failed to manage shark catch worldwide, leading to the widespread declines we see today – sharks on the high seas have declined over 70% in only 50 years.

In 2020, Global FinPrint, a seminal survey of global reef sharks, found that of the 371 reefs surveyed in 58 countries, sharks were not observed in nearly 20%, indicating a "functionally extinct" status.

In 2023, further analysis of Global FinPrint data indicated that the five main shark species that live on coral reefs – grey reef, blacktip reef, whitetip reef, nurse and Caribbean reef sharks – have declined globally by an average of 63%, far worse and more widespread than previously thought.

On protective shark actions

Since 2013, CITES began to list commercially traded species of sharks and rays under the convention's appendices, mainly Appendix II which mandates sustainable trade.

In 2022, governments recognized the outsized role that unmanaged trade was playing in driving global shark declines and listed the majority of the fin trade in CITES Appendix II – meaning that almost every shipment of shark products must show it was sustainably and legally sourced.

International obligations to limit shark trade to sustainable levels now mean governments are obligated to act. Almost every country must now finally reduce their catches of sharks and rays – but will they do so in time?



Key Terminology and Acronyms

Key Terminology

30X30

A worldwide initiative for governments to designate 30% of the Earth's land and ocean area as protected areas by 2030 to address the climate crisis and biodiversity loss.

Exclusive Economic Zone

An area of coastal water and seabed within a certain distance of a country's coastline, to which the country claims exclusive rights for fishing, drilling, and other economic activities.

Finning

The act of cutting of a shark's fins at sea and throwing the body back in the water. Recent studies suggest that most shark fins found in the fin trade do not come from finning activities, and finning bans have not been the most effective management measure to reduce global shark catch.

Marine Protected Area

A defined geographical space designed and managed to conserve nature and ecosystems within it.

Shark Sanctuary

An Exclusive Economic Zone-wide prohibition on the catch, retention, trade and sale of sharks and shark products. There is almost always a subsistence carve-out to these regulations. Shark sanctuaries are not MPAs.

Acronyms

Convention on International Trade in

Endangered Species of Fauna and Flora

Convention on the Conservation of

Migratory Species of Wild Animals

EEZ Exclusive Economic Zone

IATTC Inter-American Tropical Tuna Commission

International Commission for the Conservation of Atlantic Tunas

IOTC Indian Ocean Tuna Commission

IPLC Indigenous Peoples and Local Communities

ISRA Important Shark & Ray Areas (as defined

by the IUCN SSG in need of protection)

IUCN <u>International Union for</u> Conservation of Nature

IUCN SSG International Union for Conservation

of Nature's Shark Specialist Group

MPA Marine Protected Area

MPCA Marine Protected and Conserved Areas

NDF Non-Detriment Finding

RFMOs Regional Fisheries Management

Organizations

WCPFC Western and Central Pacific

Fisheries Commission

U.S Experts and Organizations

Demian Chapman

Director of Sharks and Rays
Conservation Research Program
Mote Marine Laboratory
Mote Marine Laboratory
and Global FinPrint

Known for leading DNA studies that shed light on the international shark fin trade, justifying more than 100 species of CITES listings. Leader of Global FinPrint project that mobilized hundreds of researchers in unprecedented assessment of reef shark status.

Lee Crockett

Executive Director
Shark Conservation Fund
Shark Conservation Fund

In addition to managing all aspects of Shark Conservation Fund, Lee has working fisheries knowledge at state, interstate, federal and international levels. His experience includes Director of U.S. Oceans for The Pew Charitable Trusts and Executive Director at Marine Fish Conservation Network.

Michael Heithaus

Executive Dean of Arts, Sciences and Education Florida International University Florida International University "Life Below the Water"

Global expert on the ecological roles and importance of marine predators, and co-lead of Global FinPrint. His work in Shark Bay Australia is the most detailed study of the ecological role of sharks in the world and been used as the underpinning for affecting positive policy changes.

Yuta Masuda

Director of Science
Paul G. Allen Family Foundation
Paul G. Allen Family Foundation

Yuta advances strategic development of science priorities in ocean health for the Paul G. Allen Family Foundation and serves on the boards of Oceans 5 and Shark Conservation Fund.

Megan O'Toole

Shark Biodiversity Initiative Manager Shark Conservation Fund SCF Shark Biodiversity Initiative Over 12 years' experience in managing global programs to secure strong, effective policy changes to better conserve sharks and habitats. Prior work in international policy with International Fund for Animal Welfare and Pew Charitable Trusts.

Jen Sawada

Senior Manager, Pew Bertarelli Ocean Legacy Pew Bertarelli Ocean Legacy Jen focuses on campaigns that work to promote a conservation network of marine protected areas, ecological corridors, and fisheries management in the Eastern Tropical Pacific and Pacific.

Luke Warwick

Director, Shark and Ray Conservation Program Wildlife Conservation Society Wildlife Conservation Society Known as a global expert in shark and ray conservation and management, Luke has worked on developing research and monitoring techniques and establishing strong management policies worldwide.

Timeline of Global Shark Policies, MPAs, and Sanctuaries

Shark conservation is relatively new and much progress has been made in a short amount of time. But conservationists are still playing catch up at a point when we are almost out of time to bend the downward trend of species decline. If we can bring private enterprise and governments together, we can solve the problem in 5 to 10 years. But we need to do something NOW.

Highlights of International, Regional, and National Actions:

2023 Papua New Guinea established two local level marine protected areas in New Ireland, the first specifically aimed at protecting sawfish, wedgefish, and giant guitarfish.

The United Arab Emirates prohibits the catch and trade of all CITES-listed shark and ray species.

- 2022 President Biden signed the National Defense Authorization Act into law, which removes the U.S. from the shark fin trade and helps to combat wildlife trafficking.
- 2021 Gabon passes national legislation to manage and protect sharks and rays. Special authorization is needed to target the species, and the most vulnerable sharks and rays are fully protected.

Belize created three protected areas to better protect reef sharks, totaling 3,370 km².

Colombia prohibited all targeted shark fishing and international trade in shark products, while Bangladesh prohibited the catch of all guitarfish and wedgefish species.

- **2020** Belize banned gillnets throughout their EEZ to better protect sharks and other species.
- **2019** WCPFC prohibited targeted fishing or intentional setting on mobulid rays and retention onboard, transshipping, and landing.

IATTC prohibited retaining, transshipment, landing, or storing of silky sharks caught by purse-seine vessels and mandated other limits on shark catch.

It was agreed during CITES Conference of the Parties in Switzerland that 18 additional shark and ray species were placed on Appendix II. Species included two make sharks, six guitarfish, and 10 wedgefish.

2018 Samoa announced the establishment of a shark sanctuary in their EEZ, where the catch, retention, trade, and sale of shark products was prohibited.

Timeline of Global Shark Policies, MPAs, and Sanctuaries (continued)

2017 The Dominican Republic establishes a shark sanctuary in their EEZ.

Belize protected all species of rays in their EEZ.

2016 At the CITES Conference of the Parties in South Africa, devil rays, three thresher sharks, and the silky shark were officially listed under CITES Appendix II, resulting in international trade restrictions to ensure exports are sustainable and legal.

St. Maarten established a shark sanctuary in its Dutch waters.

2015 Bonaire, Saba, and Cayman Islands in the Caribbean created shark sanctuaries in their respective EEZs.

The Federated States of Micronesia (FSM), followed by Kiribati, announced shark sanctuaries in their EEZ, where the catch, retention, trade, and sale of shark products was prohibited. The Micronesia Regional Shark Sanctuary was also created with contiguous protections across Palau, Marshall Islands, FSM, and Kiribati.

2014 British Virgin Islands created a shark sanctuary in its EEZ.

Indonesia prohibited the fishing and trade of manta rays.

2013 The government of New Caledonia established a shark sanctuary in their EEZ, where the catch, retention, trade, and sale of shark products is now prohibited.

The oceanic whitetip shark, the porbeagle shark, three species of hammerhead sharks, and two species of manta rays, great and reef, were listed on Appendix II of the Convention on International Trade in Endangered Species, which provides regulation on international trade in these species and offer protection from overexploitation.

IOTC prohibited the retention, transshipment, landing, storage, or sale of oceanic whitetip sharks except artisanal fisheries fishing in the EEZ for local consumption; and WCPFC prohibited the retention, transshipment, storing, or landing silky sharks.

2012 French Polynesia created the world's largest shark sanctuary, and the Cook Islands followed with its own shark sanctuary in the same month, ending commercial shark fishing and banning the possession, sale, and trade of shark products.

China's state council announced that the Chinese government would no longer serve shark fin dishes at official functions.

Hong-Kong based Cathay Pacific Airways announced that it would halt shipments of shark fin and shark fin products.

Timeline of Global Shark Policies, MPAs, and Sanctuaries (continued)

2011 Shark fishing and possession and the sale of sharks and fins were banned in Sabah, Malaysia.

Honduras and the Bahamas announced shark sanctuaries, banning all commercial shark fishing and the possession, sale, and trade of sharks and shark products. The Republic of the Marshall Islands followed suit, but also included a ban on wire leaders and retention of sharks caught incidentally.

The U.S. Shark Conservation Act, which strengthens the U.S. finning ban by closing loopholes in the 2000 ban, was passed.

2010 The Government of the Maldives announced the establishment of a shark sanctuary in their EEZ, where the catch, retention, trade, and sale of shark products was prohibited.

IOTC prohibits the retention onboard, transshipment, landing, storing, and sale of thresher shark (Family Alopiidae).

ICCAT prohibits retention, transshipment, landing, storing, or selling oceanic whitetip sharks; and retention, transshipment, landing, storing, or selling hammerhead sharks of the family Sphyrnidae (except Sphyrna tiburo) with an exemption for developing coastal states for local consumption only, no international trade.

- **2009** The Government of Palau announced the first shark sanctuary in the world, banning commercial shark fishing and retention of sharks.
- **2008** CMS added shortfin and longfin make sharks, porbeagle sharks and the northern hemisphere population of spiny dogfish sharks to its Appendix II list of protected species.
- 2007 The UN General Assembly recommended that countries strengthen shark finning bans and consider requiring that sharks be landed with fins attached, the most effective method of ending the cruel practice of shark finning (which also helps to reduce the amount of sharks killed by commercial fisheries).

All sawfish species listed in CITES Appendix I, prohibiting continued international trade in the species and its products. These remain the only shark species listed in Appendix I.

- **2004** ICCAT is the first RFMO to ban finning, by saying that fins should not total more than 5% of the weight of the sharks onboard.
- **2003** First listing of sharks under CITES Appendix II. This included the whale shark and basking shark, which are iconic shark species but not typically commercially traded in high numbers.



Additional Resources and Organizations

Bloom Hong Kong

Blue Resources Trust

CITES Sharks and Rays

Elasmo Project

IUCN Shark Specialist Group

International Fund for Animal Welfare

Manta Trust

Migramar

Save Philippine Seas

The Shark Trust

Traffic

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