

THE GLOBAL STATUS OF SHARKS, RAYS, AND CHIMAERAS



ABOUT THE REPORT

- **20 years** since the first report in 2005
- **353 authors** from **115 countries**
- **> 2,000 pages** covering **158 countries** and territories with a coastline

SUCCESSSES

- **Improved information** from Asia, Africa, Central America and the Caribbean, the Indian Ocean, and South America
- Sharks and rays **increasingly represented** in **fisheries and trade regulations**

GAPS

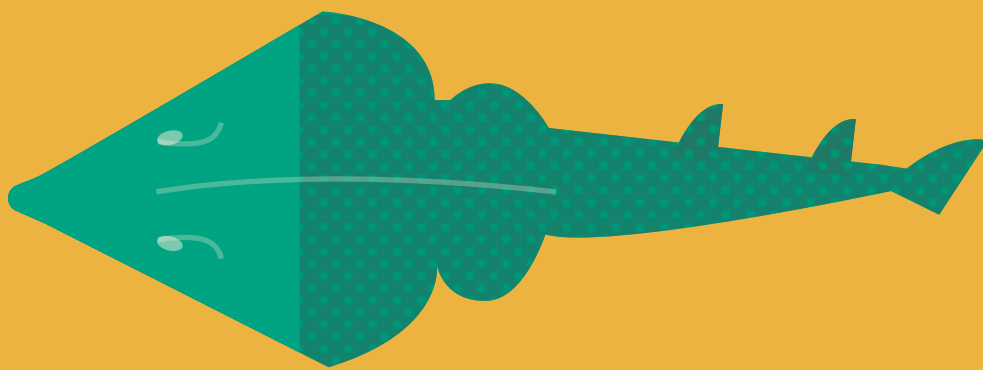
- **Enforcement** of fisheries regulations and Marine Protected Areas (MPAs) is limited
- **Implementation of policies** at the national level is slow

Catastrophic shark, ray, and chimaera declines need improved fisheries management, bycatch mitigation, enforced protected areas, and implemented trade and fishery policies.

SHARK, RAY, AND CHIMAERA SPECIES



>25%
of sharks, rays, and
chimaeras only discovered
in last 20 years.



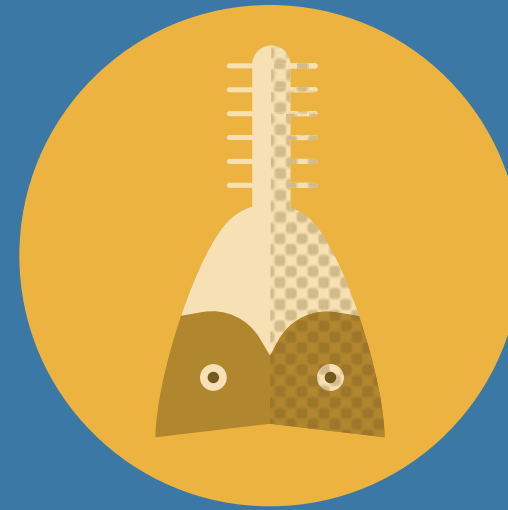
We're battling to save
what we know, but we
don't even know what
we have.

WHY WE NEED SHARKS, RAYS, AND CHIMAERAS



ECOLOGICAL VALUE

They regulate prey numbers, influence behaviour, cycle nutrients, and act as carbon sinks.



CULTURE

They are part of coastal stories, histories, and spirituality globally.



TOURISM

Shark and ray tourism generates over USD \$300M/year; a number expected to double in the next 20 years.



FOOD

They are linked to culinary traditions, are a key source of protein, and ensure food security.



JOBS & LIVELIHOODS

In some low-income nations, >80% of reported fishing income comes from sharks, rays, and chimaeras.



TRADE

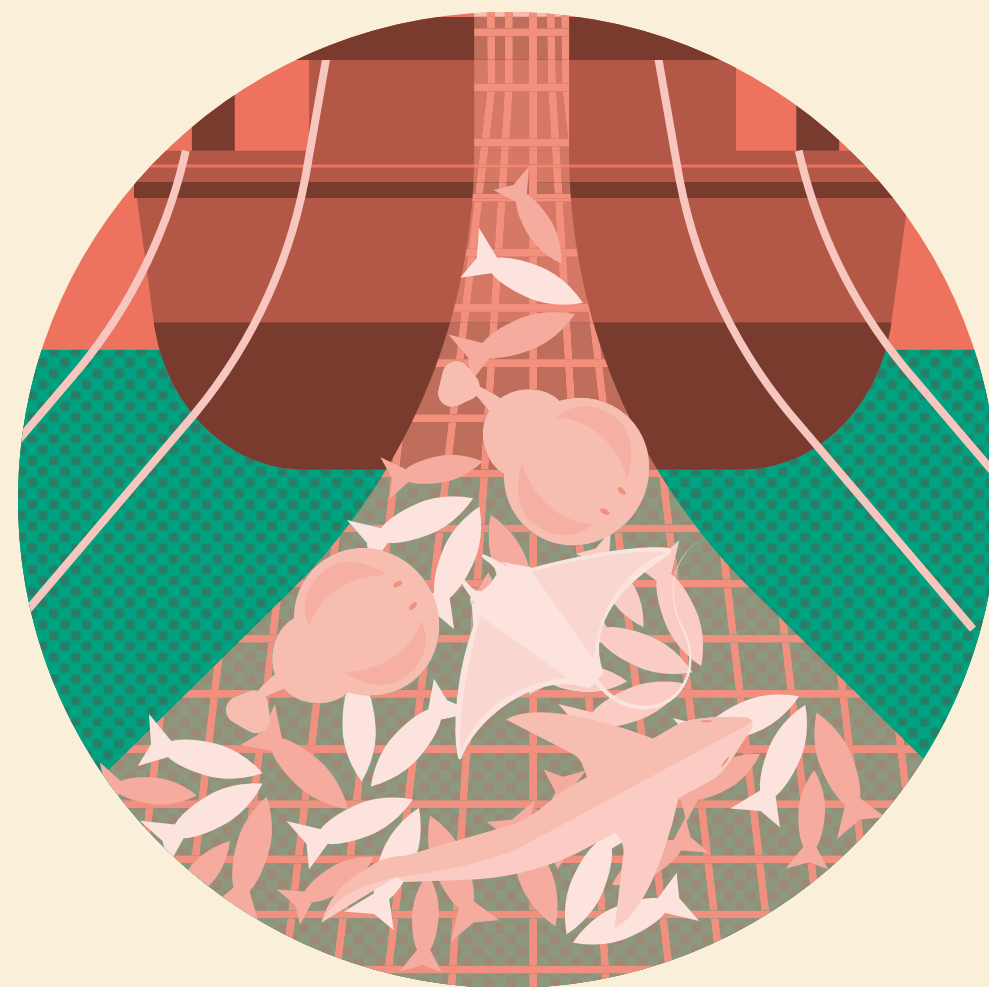
Shark and ray meat is now valued at 1.7 times that of the global fin trade.



PRODUCTS

Shark and ray products are diverse, and are worth close to USD 1 billion annually.

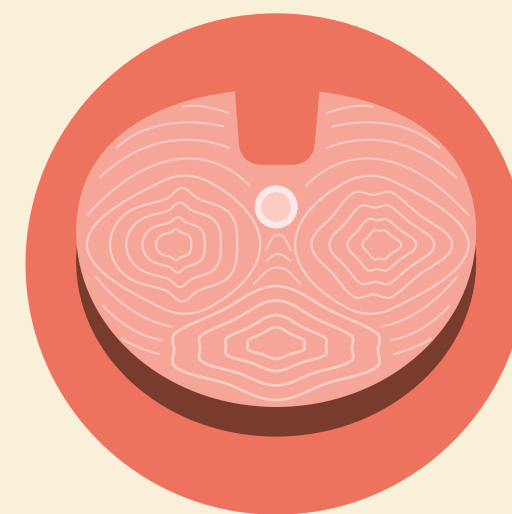
A MAJOR THREAT: OVERFISHING



OVERFISHING IS THE KEY DRIVER OF SHARK, RAY, AND CHIMAERA DECLINES. OVER 90% OF SPECIES ASSESSED BY THE IUCN ARE IMPACTED SOLELY BY OVERFISHING.



Only 26% of species are intentionally targeted; **most species are caught as bycatch.** 99% of incidental catches are retained, and often consumed, marketed, and traded.



While shark fins are of higher value than shark meat, and the global fin trade has received more attention, **the global shark and ray meat trade is larger in volume and value than the global fin trade.**



Huge declines have been seen in species such as **rhino rays (e.g. wedgefishes), whiprays, angel sharks, and gulper sharks.**

ADDITIONAL & EMERGING THREATS



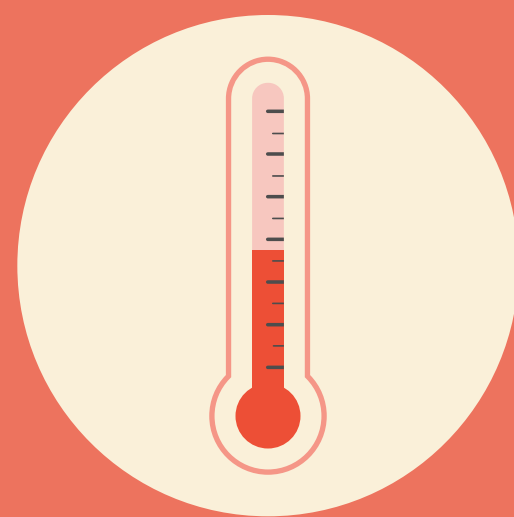
HABITAT LOSS & DEGRADATION

Sharks, rays, and chimaeras use different habitats at different life stages. **We must protect essential habitats as we alter mangroves, estuaries, coasts, and deepwater habitats.**



POLLUTION

Organic pollution (river discharges, fish farms) can add nutrients or reduce oxygen from coastal areas. Some sharks and rays are also ingesting **micro- and macroplastics**.



CLIMATE CHANGE

Climate change is now a hazard for 10% of sharks and rays threatened with extinction on the IUCN Red List of Threatened Species.

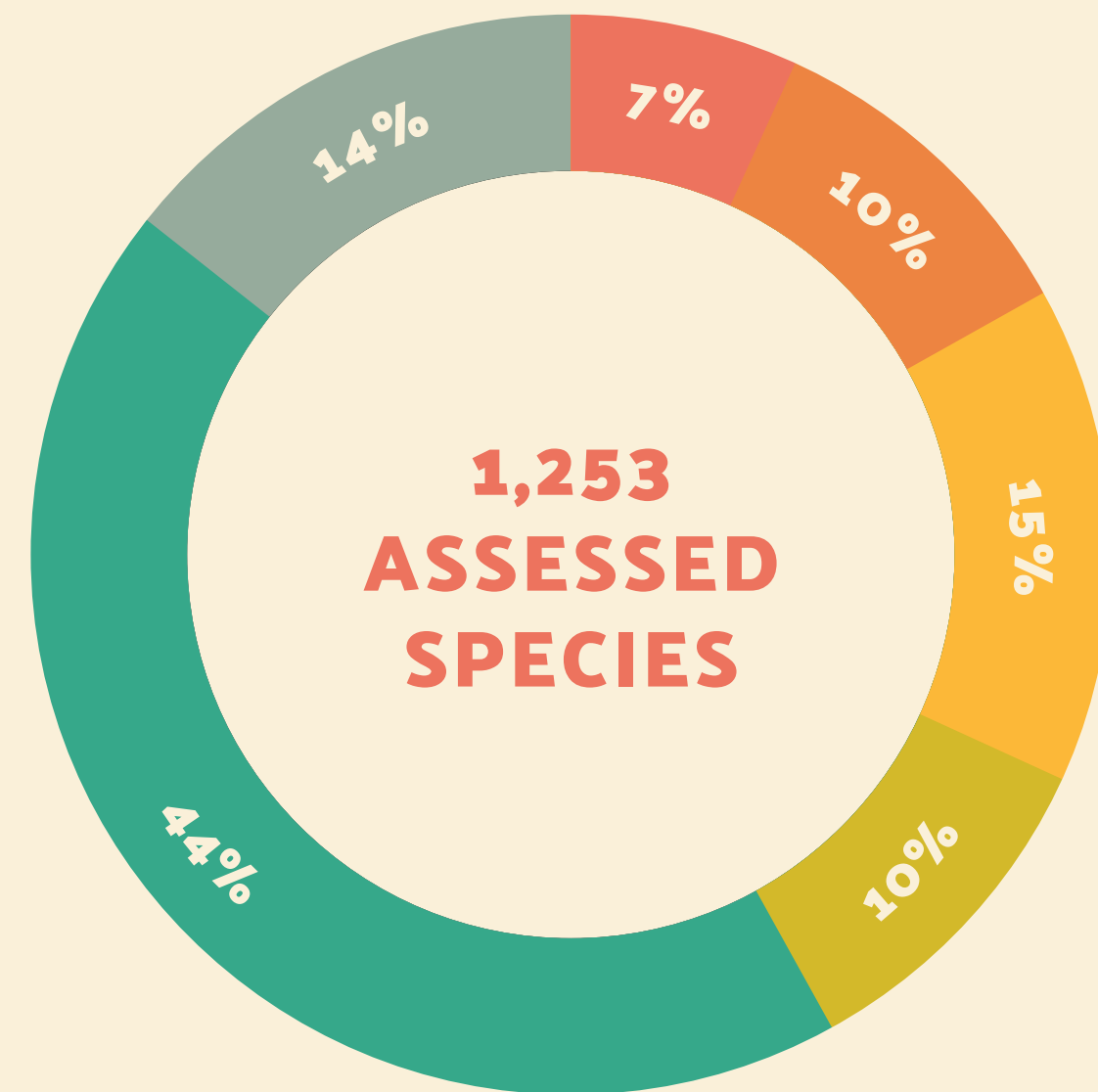
Habitat loss, smaller geographic ranges, and impaired reproduction will affect sharks, rays, and chimaeras.



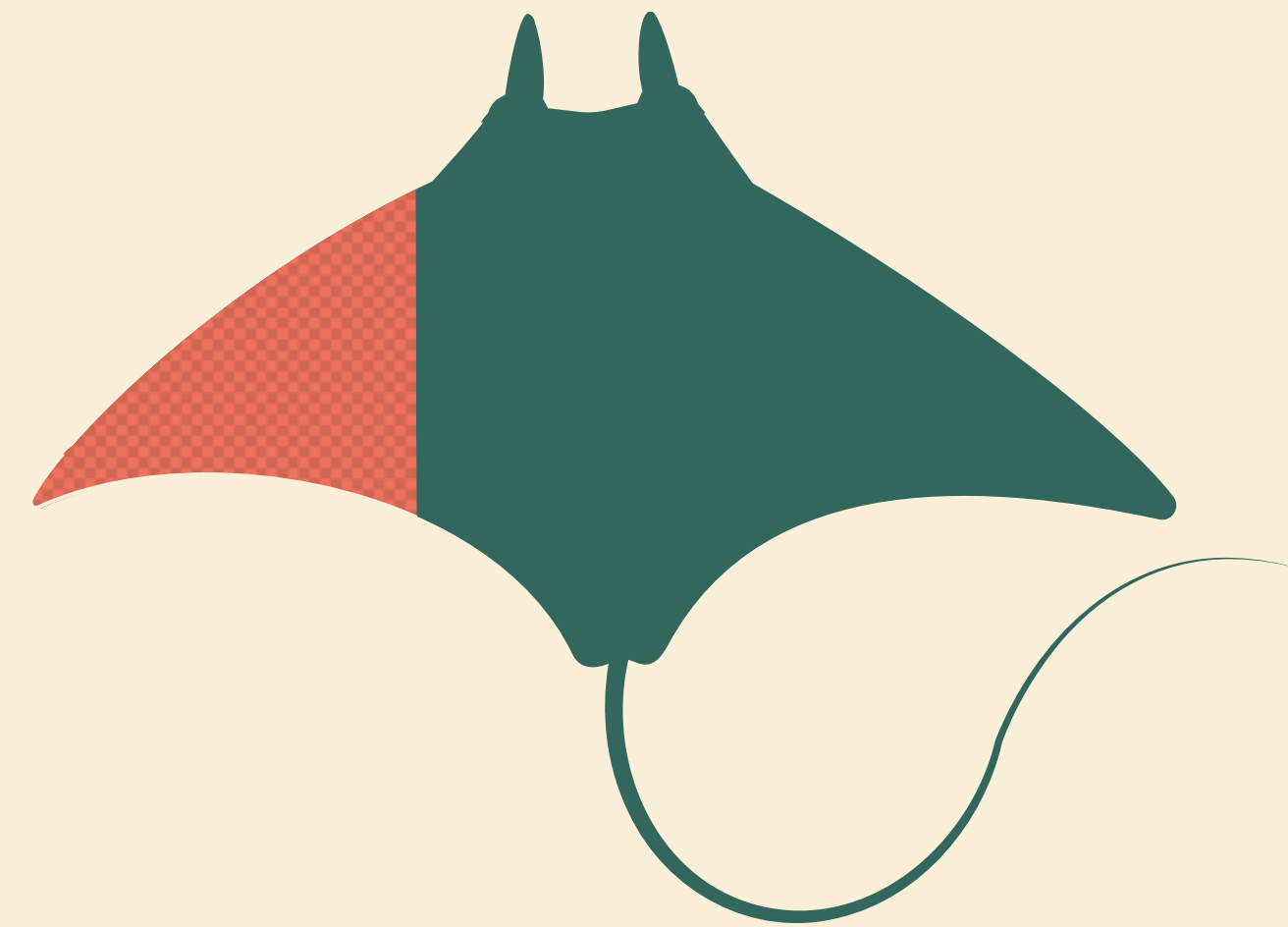
DEEP-SEA MINING

The combined threat of **habitat loss, ecosystem disruption, and potential direct damage to deep-water species from deep-sea mining for minerals, oil and gas** is an emerging concern.

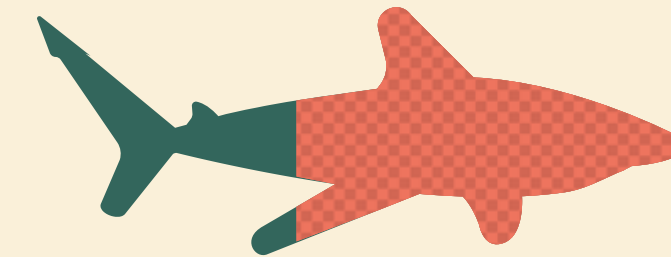
THREAT STATISTICS



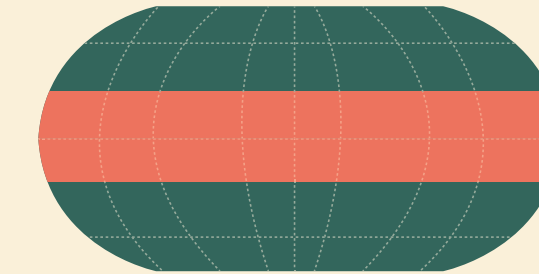
- Critically Endangered (CR)** 93 species
- Endangered (EN)** 129 species
- Vulnerable (VU)** 179 species
- Near Threatened (NT)** 130 species
- Least Concern (LC)** 546 species
- Data Deficient (DD)** 175 species
- Extinct (EX)** 1 species



ONE THIRD of sharks, rays, and chimaeras are **THREATENED WITH EXTINCTION**.



TWO THIRDS of these threatened species are at risk of extinction from **OVERFISHING** alone.



COASTAL SPECIES ARE MOST THREATENED, and that threat is highest in the **TROPICS and SUBTROPICS**.

SOLUTIONS



SUSTAINABLE FISHERIES MANAGEMENT

Improve data collection for stock assessments, support leadership from within local communities, and nurture community involvement.



MITIGATE BYCATCH

Change fishing practices or timing of fishing seasons, modify fishing gear, and change fisher behaviour to minimize the incidental catch and retention of sharks, rays, and chimaeras.



ENFORCE MPAS

More MPAs designed for sharks, rays, and chimaeras to **protect essential habitats, and enforce boundaries** of existing parks.



IMPLEMENT POLICIES

In 2005, only two shark species were listed on Appendix II of CITES*; today, over 150 species are listed. But **policies need to be implemented nationally and regionally to work.**

A GLOBAL FISHERIES SNAPSHOT

CATCHES OF SHARKS, RAYS, AND CHIMAERAS HAVE BEEN REPORTED TO FAO* SINCE 1950.
GLOBAL REPORTED CATCHES PEAKED IN 2000 AND HAVE BEEN DECLINING STEADILY SINCE THEN.



MOST COMMON SPECIES IN THE FIN TRADE

- Blue Shark
- Silky Shark
- Blacktip shark complex
- Milk Sharks
- Smoothhound sharks
- Scalloped Hammerhead
- Smooth Hammerhead
- Shortfin Mako



MOST COMMON SPECIES IN THE MEAT TRADE

- 55% of the high value meat trade comprises skates & tropical rays
- Blue Shark
- Rajiformes
- Shortfin Mako
- Smoothhounds *Mustelus* spp.

UNITED STATES OF AMERICA

Strong shark and ray fisheries management but one of the top 5 shark fishing nations globally.

MEXICO

One of the top 5 shark fishing nations globally.

COSTA RICA

Between 2000-2011, Costa Rica was one of Hong Kong and Taiwan's largest shark fin exporters.

EASTERN TROPICAL PACIFIC

Shark landings in this region are decreasing while fishing effort is increasing.

SOUTH AMERICA

Together with Europe, accounts for a major proportion of the global meat trade.

ARGENTINA

Top exporter of ray meat.

EUROPEAN UNION

Accounts for 22% of the global shark and ray meat trade.

SPAIN

Top shark meat exporter and one of top 3 shark fishing nations.

ITALY

Top importer of shark meat.

WEST AFRICA

Increasing shark and ray artisanal fishing pressure as protein demand rises; industrial fishing dominated by Europe and China with negligible monitoring or control.

WESTERN INDIAN OCEAN

A shark and ray diversity hotspot with poor data reporting, meat caught in small-scale fisheries is consumed locally and fins are exported.

INDIA

One of the top 3 shark fishing nations that together with Indonesia and Spain accounts for 35% of all shark fishing.

SRI LANKA

Largest Silky Shark catcher and the second-largest mobulid ray (Mobulidae) catcher in the Indian Ocean.

CHINA

Largest distance-water fishing fleets and one of 4 largest importers of shark fins globally.

BANGLADESH

Shark fins, meat, and skins are exported to Myanmar for re-export to Singapore, Hong Kong SAR, China, and the United States.

SOUTH KOREA

Top importer of skate meat.

HONG KONG SAR

Key consumer market for shark fin and is one of the largest global trade hubs for shark fin-related products.

MALAYSIA & SINGAPORE

Two of the 4 largest importers of shark fins.

INDONESIA

Largest shark fishing nation, reporting the highest catch volumes.

*The Food and Agriculture Organization of the United Nations



TOP 5 FISHING NATION



TOP MEAT IMPORTER



TOP MEAT EXPORTER



TOP FIN IMPORTER



GROWING MEAT DEMAND

BY REGION



AFRICA

High fishing pressure meets high dependence on fisheries for livelihoods and food security. Information and effective management lacking in many areas. Enforcement, improved information and corrective management needed.



ASIA

Asia's coastal fishing area accounts for about 40% of the world's total. The region is home to nearly 60% of the global human population. The demand for valuable shark and ray products has intensified fishing, and the largest processing and consumption markets are in this region.



CENTRAL AMERICA & THE CARIBBEAN

Knowledge of shark and ray fisheries has improved significantly since 2005. However, biological and ecological information for most threatened species is lacking.



MEDITERRANEAN & BLACK SEAS

Sharks and rays have declined throughout the Mediterranean and Black Seas since the 1950s. Shark and ray landings reached a minimum in the mid-2000s, and after another relative maximum at the end of the 2010s, a new decline has been observed.



NORTHERN EUROPE

Knowledge of sharks, rays, and chimaeras has improved, and several fisheries management and conservation measures have been introduced. However, target fisheries have declined substantially across the region due to declining stocks, reduced or zero total allowable catches, and some prohibitions.



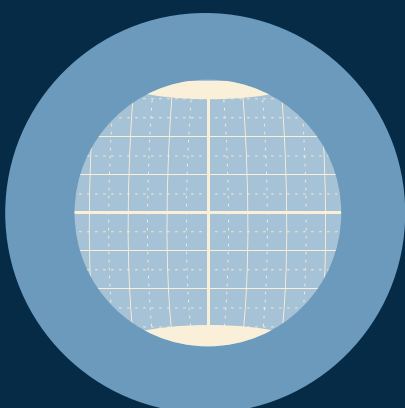
NORTH AMERICA

Although North America has some of the strongest shark management in the world, there are knowledge gaps for several sharks, rays, and chimaeras. Canada and the USA require more targeted funding to assess the status of species of low commercial value, or those that are not protected nationally.



OCEANIA

Island nations have improved protection measures, but enforcement of regulations is challenging across vast ocean expanses. Most fisheries in Australia are considered sustainable, but there are significant domestic markets for shark meat.



POLAR WATERS

Climate change is an emerging threat and shark, ray, and chimaera bycatch may increase as commercial fish stocks move to avoid rising sea surface temperatures. Local pollution may increase as boat and shipping access into the Arctic increases with melting ice.



SOUTH AMERICA

A key role player in the global shark and ray product trade, but fisheries management for these species remains challenging. Regulations are often lacking or unenforced, resulting in widespread illegal activity, and fishery statistics are limited or unreliable.