

# SHARKS AT RISK



ANIMAL WELFARE INSTITUTE

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## INTRODUCTION

Sharks evolved over 400 million years ago, before the age of dinosaurs. Today, more than 500 species are known to exist.

But sharks are in trouble. Their numbers are plummeting and many species are now at risk of extinction. Human activity has caused some species' populations to decline more than 90 percent over a few generations—and their future is uncertain.

## LOSING SHARKS LEADS TO GREATER LOSSES IN THE OCEAN

Many shark species are apex predators, which means they play an integral role in maintaining a balanced ocean ecosystem. Studies have shown that robust populations of animals at the top of the food chain actually lead to greater biodiversity. Without them, the health and productivity of our

oceans—and the human livelihoods that depend on healthy, productive oceans—are at risk.

Depleting shark populations at the present rate is causing imbalances in the ecosystem and contributing to the collapse of important fisheries. For example, depletion of sharks in the Atlantic Ocean has contributed to a population explosion of rays and skates, which has led to a population collapse in their prey, scallops. This affects both the ecological balance (scallops play a role in maintaining water quality) and the scallop industry. Sharks need protection not just for their own sake, but also for the health of the wider marine environment and industries whose success is contingent on healthy, sustainable marine populations.

## MORE VALUABLE ALIVE THAN DEAD

Living sharks have economic value beyond the role they play in preserving the viability of certain fisheries. The global shark tourism industry generates over \$314 million per year and directly supports 10,000 jobs. Increased tourism stimulates local economies and can have beneficial ripple effects in other sectors as well. Continuing to hunt sharks into extinction, on the other hand, sacrifices long-term economic stability for short-term profits.

We also learn a lot from sharks. Scientists study sharks' brains to better understand underwater navigation systems. They study sharks' cells to learn about immunity to diseases and sharks' skin to learn about hydrodynamics for better shipbuilding. Olympic swimmers even wear swimsuits that mimic sharkskin in order to decrease drag and improve performance.

## ABOUT SHARKS

Though some shark species, such as great whites, have gained mythic status in popular culture, they represent only a few of the more than 500 known species. Sharks live in a wide range





of habitats. Some are migratory, open-ocean swimmers, while others prefer shallow tidepools, and still others prowl the dark depths of the oceans where no sunlight reaches. There are even freshwater sharks and some, including the bull shark, that can live in fresh or salt water. Sharks hunt a variety of prey, from seals and bluefin tuna to shrimp and shellfish. They vary in color, shape, and size—from whale sharks that may reach 60 feet to the diminutive 8-inch dwarf lanternshark.

Despite these variations across species, sharks share specific characteristics that have helped them survive multiple mass extinction events throughout history. Unlike fish that evolved skeletons made of bone, sharks' skeletons are composed of cartilage. Cartilage is lighter and more flexible than bone, so sharks have a lower body mass and require substantially less energy to propel themselves through the water. The skin of cartilaginous fish such as sharks is composed of tiny tooth-like “dermal denticles” that improve aerodynamics. Sharks also have “ampullae of Lorenzini”—special electroreceptors on their snouts that enable them to sense electrical fields generated by other animals' movements in the water. Such adaptations make sharks extremely effective hunters.

Sharks' negative public image as ruthless, man-eating monsters impedes conservation efforts and gives false credibility to sensationalized stories. In truth, humans pose a far greater risk to sharks than the reverse. Fatal shark attacks are

extremely rare—in 2019, there were five known human fatalities worldwide from shark attacks. Only two of these are known to have been unprovoked attacks (in which the encounter was not in some way instigated by the human). Far more people die each year from lightning strikes. Meanwhile, more than 100 million sharks are thought to be killed each year by humans.

## THE GLOBAL SHARK FIN TRADE AND GROWING DEMAND FOR SHARK FIN SOUP

There is a robust global market for shark fins in particular to meet the demand for shark fin soup. Although shark fin itself is tasteless and the flavor of the soup comes from other ingredients, the soup is a prized dish in some East Asian societies and a lucrative product for sellers.

Moreover, because of the high commercial value of shark fins and the relatively low value of shark meat, fishermen often take only the fins and toss the rest—an extremely cruel and wasteful practice known as “shark finning.” Often, sharks are finned alive—brought aboard fishing vessels to have their fins sliced off, then thrown back into the sea, where they suffocate,



A pile of sharks and another of fins line the dock after a Taiwanese fishing vessel was seized for violating Palau's ban on shark fishing.

bleed to death, or are eaten by other animals. Appallingly, the animals are usually conscious through much of the ordeal. By discarding the bodies, fishing vessels can take more fins on a single voyage, making the hunting ruthlessly efficient and rapidly draining the oceans of sharks.

In response to the threat to sharks from finning, in 2013 the Chinese government banned serving shark fin soup at official banquets. Yet there is continued demand for shark fin soup, dumplings, and other shark fin dishes served in restaurants around the world, with an estimated 73 million sharks being killed each year for their fins alone.

In addition to finning, up to 50 million more sharks die annually as bycatch in unregulated fisheries, often through the use of destructive and indiscriminate fishing methods such as longlines, gillnets, and trawls that sweep up everything in their path. Much of the international shark fin trade is unregulated, so sharks caught accidentally are routinely killed for their fins, even if the victim is from an endangered species.

## EXTINCTION STATUS

Many shark populations have faced steep declines due to decades of exploitation for their fins, cartilage, meat, and liver oil. Global shark fin imports and exports have been on the rise since the 1990s, and humans are killing sharks at a much faster rate than sharks can repopulate. Despite their role as top predators, sharks are extremely vulnerable to overfishing

because they mature late in life, have slow reproductive rates, and produce few offspring.

The IUCN Red List of Threatened Species, developed by the International Union for Conservation of Nature, provides vital data and information on extinction risk for over 110,000 species of animals worldwide. According to the IUCN, sharks and their relatives, rays and chimeras, have the highest percentage of known species at risk. Currently, over a quarter of all known shark species appear on the IUCN's Red List.

With many shark populations declining sharply amid growing global demand, the UN's Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) has begun to regulate trade in sharks and related species. Since 2007, all seven sawfish species have been listed in CITES Appendix I, effectively banning international trade in them.

Species that may become threatened with extinction unless trade is closely controlled are listed in CITES Appendix II. Such listing means that countries exporting products from these species must first determine that international trade will not harm the species. Exporting countries must also collect trade data and issue an export permit for each specimen exported. Basking and whale sharks were listed in CITES Appendix II in 2003; great white sharks in 2005; oceanic whitetip, porbeagle, and three species of hammerhead sharks, plus all species of manta rays, in 2014; thresher and silky sharks, plus all species of mobula rays in 2017; and shortfin and longfin mako sharks, plus six species of guitarfish and 10 species of wedgefish in 2018.



However, although over one-quarter of all known shark species are considered threatened or endangered, less than half receive global protection through trade restrictions.

## SHARK CONSERVATION

Shark finning is banned or restricted in territorial waters of almost 60 countries. Though some, including the United States, Canada, and member states of the European Union, ban shark finning, not all countries with finning regulations require that shark carcasses be landed with fins attached. Instead, like several regional fishery management bodies, they employ a fin-to-carcass ratio whereby the total weight of the fins must not exceed a certain percentage of the total weight of the carcasses (often 5 percent). However, once fins are removed, it is nearly impossible for enforcement officials to determine what species the fins were taken from, making enforcement very difficult and allowing fishermen to flout the law by mixing and matching bodies and fins from various sharks.

Scientists, conservationists and enforcement officials are in agreement that if sharks are fished, the only way to effectively enforce a ban on shark finning is to require that they must be brought to shore with their fins naturally attached to their bodies.

To protect sharks at the market level, several countries, including Egypt and The Bahamas, as well as 13 US states and three US territories, have enacted laws to prohibit the possession and sale of shark fins. In 2019, Canada became the first G20 nation to ban the import and export of shark fins altogether.

Over 20 nations have full or partial bans on shark fishing, which includes prohibiting the practice of shark finning. Indonesia, India, Taiwan, and Spain are among the most prolific shark-fishing nations. However, fishermen throughout the world engage in shark fishing. Studies show that 91 percent of global shark catches per year are from unsustainable sources.

Despite the worldwide decline in shark populations caused by overfishing, many countries do not have sufficient

resources or legal mechanisms in place to enforce laws protecting sharks. Additionally, the lack of governance on the high seas (areas beyond the territorial waters of any country) leaves sharks vulnerable.

## YOU CAN MAKE A DIFFERENCE

Help sharks by not purchasing any shark products: Visit [www.awionline.org/SharkFinSoup](http://www.awionline.org/SharkFinSoup) for lists of restaurants in the United States and Canada selling shark fin dishes. Please do not eat at these restaurants, but rather let the management know that you oppose the selling of such products and why. If you find a restaurant selling shark fin products that is not on the list, email us at [nosharkfinning@awionline.org](mailto:nosharkfinning@awionline.org) so we may verify that it is doing so and add it to the list. Educate others about the problems associated with shark fin soup and encourage them to take a stand against consuming or serving shark fin products. If you know of a restaurant serving shark fin products, consider sharing the enclosed card asking that it stop.



# say NO to SHARK FIN SOUP

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## SHARK FIN SOUP

The pectoral and dorsal fins of sharks are the main ingredients in shark fin soup. Although shark fin itself is tasteless and the flavor of the soup comes from other ingredients, the soup is viewed as a delicacy and status symbol in Asia, commonly served at weddings and other special events. Although it is traditionally an expensive dish (with a price tag upwards of US\$100 a bowl), it is increasingly sold more cheaply. As economies grow in Asia, a dish once reserved for the elite is now available to many more consumers, and is in demand in many Asian communities around the world.

## CONSUMPTION/HEALTH ISSUES

Many health organizations warn against the consumption of sharks and other large, long-lived fish, which tend to accumulate high levels of mercury that can be toxic to humans. Studies have shown that shark fins can contain high levels of mercury.

Though shark fin soup remains widely available and legal, including in most US states, awareness-raising efforts by animal protection and conservation groups, including AWI, are reducing both supply and demand. Some restaurants have withdrawn shark fin soup from the menu while others offer an imitation version; some companies have pledged not to serve shark fin soup at functions and many consumers have vowed to stop eating it.

Please give this to a restaurant that sells shark fin products.

## LET SHARKS KEEP THEIR FINS!



## 讓鯊魚留著他們的鰭吧

Dear Restaurant Owner,

You are receiving this card because you sell shark fin products.

Health organizations agree that consuming shark fin is dangerous for human health.

Selling shark fin is also dangerous for ocean health. Sharks are often finned alive for this product. It is a cruel and wasteful practice that is harming marine ecosystems.

We urge you to protect your customers and the ocean:  
**PLEASE STOP SELLING SHARK FIN PRODUCTS.**

Learn more at  
[www.awionline.org/content/shark-finning](http://www.awionline.org/content/shark-finning).

尊敬的餐廳所有人，

您收到此卡是因為貴餐廳銷售魚翅產品。

衛生組織普遍同意食用魚翅對人類健康有害。

鯊魚通常活著被割下魚鰭。這是一種殘酷和浪費的做法，並且正在損害海洋生態系統。

我們敦促您保護您的客戶和海洋：請停止銷售鯊魚鰭產品。

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## Animal Welfare Institute

Since 1951, AWI has been a leading voice for animals around the globe. Please join our efforts to reduce the suffering inflicted on animals by humans and sign up for AWI eAlerts to receive the latest news on what you can do to help us protect all animals: [www.awionline.org/joinus](http://www.awionline.org/joinus).



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