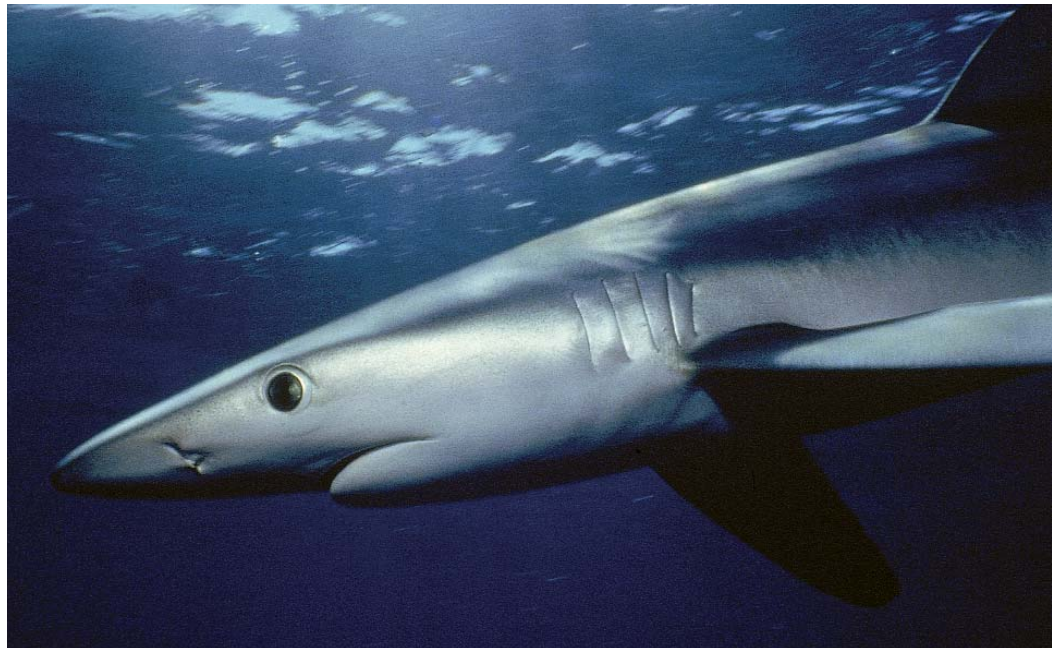


Sharks and their relatives around the world are facing a bleak future. To reverse their predicament, people will need to not only stop fearing sharks, but also care enough to take action on their behalf.



Shark Conservation

While many people fear sharks, the reality is that sharks have more to fear from humans than humans do from sharks.



Fast Facts

- > There are roughly 400 species of sharks and 600 species of rays; for international policy purposes, they are all considered “sharks.”
- > The IUCN (World Conservation Union) includes more than 80 shark and ray populations or entire species on its Red List of Threatened Species; this number continues to grow as more species are assessed.
- > Female spiny dogfish carry their young for two years, one of the longest gestation periods for any animal.
- > Sawfish are born with their snaggle-toothed snouts encased in a protective sheath to prevent injury to the mother.
- > Blue sharks are known to cross entire ocean basins. They are frequently caught as bycatch in high seas fishing gear set for swordfish, tuna, and other commercial fish.

Blue sharks (above) have been shown to migrate across ocean basins, complicating their management. Photograph by David McCray

Fear vs. Fact

Fear vs. Fact

After roaming the seas for 400 million years, sharks are facing their first real threat—humans. Often mislabeled as “man-eaters,” sharks have been feared and hunted for centuries. Today, overfishing, worldwide demand for shark products and poor management are pushing sharks to the brink.

Unfortunately, sharks have a well-publicized negative image that was compounded by the hit movie *Jaws*, which terrified a generation of beachgoers. Rare and isolated shark bite incidents now often attract intense media coverage. This negative attention can hinder shark conservation.

Many people fear sharks, but dogs, snakes, bees, and even pigs kill more people than do sharks. Further, people can take simple precautions to reduce the chances of shark attacks, such as not swimming with baitfish or marine mammals, near outfall pipes, at dawn or dusk, or while bleeding.



Intense, uncontrolled fishing of dogfish has driven the northwestern Atlantic population to the brink of collapse.

Importance

Why Sharks Are Important

Most sharks play the important role of top predator in ocean ecosystems. By feeding on the weak and wounded of prey species, sharks help keep the oceans in balance. Removing sharks from the food web could have catastrophic effects.

Sharks have both fascinated and benefited humans for centuries. Fishing and diving industries benefit from healthy shark and ray populations; coastal economies profit, as well. In addition, sharks' remarkable immune systems are the subject of important research and may hold the key to a better understanding of how to fight disease in humans.

Vulnerabilities

Shark Vulnerabilities

Despite their fierce image, sharks are among the most biologically vulnerable creatures in the ocean. They are simply not equipped to withstand intense fishing pressure. Along with closely related skates and rays, sharks grow slowly, mature late, and bear few young. These traits hamper sharks' ability to recoup losses incurred from fishing. Depleted shark populations can take many decades to recover.

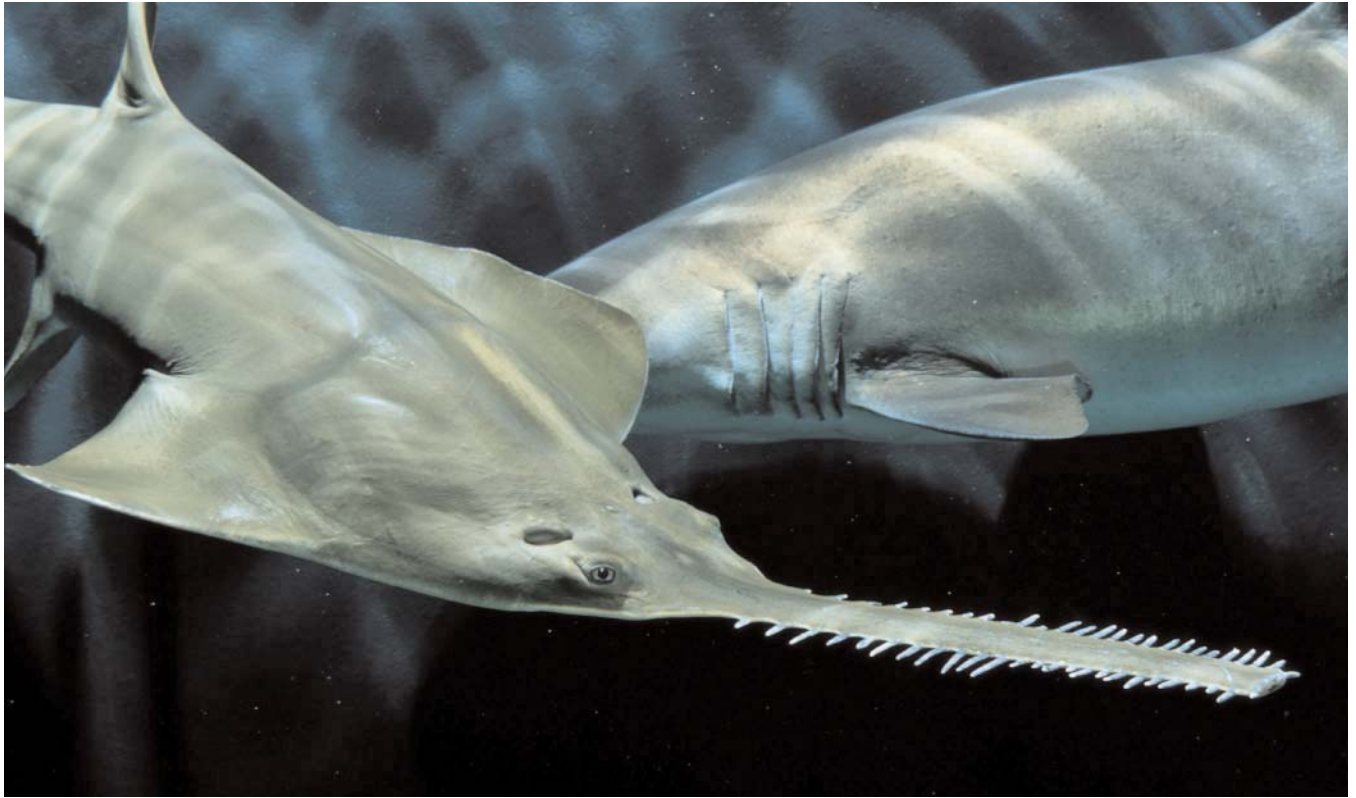
For example, the female dusky shark does not reach sexual maturity until about age 20 and may only reproduce every third year. During the 1980s, dusky shark populations declined by roughly 85 percent in the U.S. Atlantic due to overfishing. Today, the species is a candidate for listing under the U.S. Endangered Species Act and the population may take 40 years to fully recover, even without directed fishing.

Threats

Threats to Sharks

Overfishing

Throughout history, sharks have been hunted for their meat, fins, oil, teeth, hides, and more recently, their cartilage skeletons. Overfishing has led to severe declines of shark populations in recent decades. The spiny dogfish, once one of the most abundant sharks in the world, is now depleted off the U.S. East Coast. Intense, uncontrolled fishing of mature female dogfish in this region took place throughout the 1990s. Female spiny dogfish do not reproduce until they are at least 12 years old and then carry an average of only six pups for two years. While the National Marine Fisheries Service enacted a recovery plan for federal waters in 2000, several Atlantic coastal states allowed excessive limits in their waters until 2004.



Finning

Sharks also fall victim to finning, the practice of slicing off a shark's fins and tossing its carcass back into the water. Highly prized for use in the delicacy shark fin soup, shark fins support a very lucrative market. Although the U.S. Shark Finning Prohibition Act of 2000 banned the practice in all U.S. waters, finning still occurs legally in most parts of the world. In 2003, the United Nations called for an end to fin fisheries, but has yet to issue a global ban on finning.

Bycatch and Habitat Degradation

In addition to the intentional catching and killing of sharks, bycatch (animals caught incidentally along with the targeted species) from the fishing of tuna, swordfish, shrimp, cod, squid, and other species claims the majority of sharks and rays around the world. The degradation of nearshore habitat, which many sharks use as safe places to give birth and grow up, also threatens healthy shark populations.

Sawfish, with their long, tooth-studded snouts, are close relatives of sharks. The species was the first U.S. marine fish to receive an "endangered" listing under the Endangered Species Act in 2003, thanks to a 1999 petition from The Ocean Conservancy. Photograph courtesy George Grall, National Aquarium in Baltimore

Shark Management

Aside from their fins, sharks have relatively low economic value and are too often regarded as pests or trash, making them a low priority for fishery managers. Despite the fact that many sharks are wide-ranging, there are no international catch restrictions for sharks. Even in the United States (the world leader in shark conservation), shark management needs to be strengthened to prevent overfishing, minimize bycatch, and protect shark habitat. In many cases, scientific knowledge of sharks and their population status is limited. A good understanding of shark biology and fisheries is important for effective conservation. This requires active public support of shark research, observer, and management programs.

Conservation Efforts

Conservation Efforts

In addition to the U.S. Shark Finning Prohibition Act and spiny dogfish restrictions, other conservation initiatives are helping to protect sharks and rays. In 1993, the National Marine Fisheries Service (NMFS) implemented an Atlantic shark management plan for 39 species of coastal and pelagic (open ocean) sharks. The plan set commercial and recreational catch limits in an effort to prevent overfishing and help rebuild shark populations. In recent years, developing fisheries for skates off New England and Alaska have become regulated. In 1999, growing global awareness led to the passage of an International Plan of Action (IPOA) for Sharks under the United Nations. Sadly, implementation of this voluntary agreement has been very slow. The IUCN Shark Specialist Group works to reinvigorate international attention for sharks by adding threatened species to the IUCN Red List and producing reports that highlight the plight of sharks. In 2002, basking and whale sharks were the first shark species to receive international protection through trade measures under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Great white sharks have been proposed for CITES protection at the 2004 meeting.

Sharks desperately need your help, too. Speak up for sharks and write to your congressional representatives to encourage enhanced shark research and precautionary fisheries management.

For More Information

*Log on to our website at
www.oceanconservancy.org*

The Ocean Conservancy in Action

The Ocean Conservancy in Action

For the last decade, The Ocean Conservancy has worked diligently to protect sharks and their relatives and has enjoyed several major successes. It played a major role in promoting the first management plans for Atlantic sharks, skates, and spiny dogfish, as well as the U.S. Shark Finning Prohibition Act, the United Nations Shark IPOA, and the CITES listings. The Ocean Conservancy also filed the petition that led to NMFS listing smalltooth sawfish (a type of ray) as “endangered” under the Endangered Species Act (ESA) in 2003. It will continue to work on sharks’ behalf.