

# SHARKWATER

## NOTHING TO FEAR FROM SHARKS

In 2006 the International Shark Attack File reported that there had only been four fatal deaths due to unprovoked shark attacks (Australia, Brazil, La Reunion, and Tonga). These worldwide numbers are incredibly small given the millions of humans who enter the water. You have a better chance of dying from a bee sting, a dog or snake bite, or lightning than from a shark attack.

No shark attacks have been reported in Canadian waters for decades. For additional information on the paucity of shark attack, visit the Florida Museum of Natural History's shark research web site at: [www.flmnh.ufl.edu/fish/Sharks/sharks.htm](http://www.flmnh.ufl.edu/fish/Sharks/sharks.htm)



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## SHARK MYTHS

Sharks have no value - No Way!

Sharks are a critical part of marine ecosystems and a source for knowledge to help the human condition.

Sharks have poor vision – Not True!

Sharks' eyes, which are equipped to distinguish colours, employ a lens up to seven times as powerful as a human's. Some shark species can detect a light that is as much as ten times dimmer than the dimmest light the average person can see. Vision varies among species of sharks due to differences in the size, focusing ability, and strength of the eyes.

All sharks have to swim constantly - No!

It was once believed that all sharks had to swim constantly in order to breathe and could not sleep for more than a few minutes at a time. Oxygen-rich water flows through the gills during movement allowing the shark to breathe. While some species of sharks do need to swim constantly, this is not true for all sharks. Some sharks such as the nurse shark have spiracles that force water across their gills allowing for stationary rest.

The Great White shark is a common, abundant species found off most beaches. No!

Great Whites prefer cooler waters. In some parts of their range, Great Whites are close to being endangered.

Most sharks are harmful to people - Untrue!

Of the more than 375 shark species, about 80% are unable to hurt people or rarely encounter people.

A shark is a shark is a shark - No!

There is no "typical" shark. The more than 375 species all differ in habitat, lifestyle and body form.

Sharks are hard to kill - Off Base!

The stress of capture weakens a shark, and so some sharks are easily killed in hook-and-line or net fishing.

Consuming shark fins makes people strong and healthy. Wrong!

Sharks have peanut-sized brains. No!

Sharks' relatively large and complex brains are comparable in size to those of advanced animals like mammals and birds. Sharks can be trained.

Most sharks cruise at high speed when they swim - Invalid!

Most sharks swim very slowly at cruising speeds of less than 5 knots (10 km per hour).

Sharks are not found in freshwater - No!

A specialized system enables the bull shark to cope with dramatic changes in salinity—from the freshwaters of some rivers to the highly saline waters of the ocean.

Sharks are not discriminating eaters and scavenge the sea - Wrong!

Most sharks prefer to eat certain types of invertebrates, fish and other animals. Some sharks eat mainly fish. Others eat other sharks or marine mammals. Some sharks are even plankton-eaters.

The biggest enemy to sharks are humans - Absolutely! That's why humans must now do all they can to preserve them.



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## SHARK FINNING

The finning of sharks is one of the cruelest practices that humans engage in against any species of animals. In the long-term this cruel and wasteful practice will not benefit anyone.

- Shark finning refers to the removal of shark fins and the discarding of the rest of the shark.
- The shark is most often still alive when it is tossed back into the water. Unable to swim, and bleeding to death, the shark suffers a slow death.
- 95 per cent of the animal is wasted.
- Shark finning takes place at sea.
- Shark meat is considered low value and therefore not worth the cost of taking the bulky shark bodies to market.
- Long lines are the most widespread method of fishing for sharks.
- Shark finning is largely unmanaged and unmonitored.
- Shark finning has increased over the past decade due to the increasing demand for shark fins (for shark fin soup and traditional cures) and improved fishing technology.
- Shark specialists estimate that more than 100 million sharks are killed for their fins annually.
- Shark finning threatens the stability of marine ecosystems.

### LAWS AGAINST SHARK FINNING

- Each country with a coastline is responsible for laws and regulations pertaining to fishing in their waters.
- Some countries have shark-finning legislation. Many stipulate that fins must arrive in a 5 per cent weight ratio of the shark carcasses onboard. Only a few countries demand that sharks arrive in port with fins attached.
- According to some experts, the easiest way to implement a ban is to require that shark carcasses be landed with fins attached. The possession of fins alone on vessels would thus be illegal.
- Shark finning violates the United Nations Food and Agriculture Organization's Code of Conduct for Responsible Fisheries and its Plan for the Conservation and Management of Sharks.
- The United Nations Convention on the Trade of Endangered Species of Flora and Fauna lists the whale shark, basking shark, and Great White shark as species that could become threatened if trade is not controlled. To date, 169 countries have agreed to be legally bound by this convention.

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## SHARK FACTS

The largest shark, and also the largest fish in the ocean is the Whale Shark, which can grow to be 15 m long. The second biggest fish and shark is the Basking shark (12.3 m). The Great White shark grows to 6.4 m.



Fossil records indicate that ancestors of modern sharks swam the seas over 400 million years ago, making them older than dinosaurs! Throughout time sharks have changed very little.

The smallest shark is a deepwater Dogfish shark. This species which is found in the Caribbean Sea is mature at under 20cm.



The fastest swimming sharks are the Mako sharks and Blue sharks, which can leap out of the water. They might also be the fastest fish. Estimates of their speed vary between 97 kph and 35 kph.

The Blue shark has been known to migrate from 2,000 to 3,000 km in a seasonal journey from New York State to Brazil.

Sharks that swim in open water have a colour pattern called “countershading.” The upper portion of the shark is dark in colour to make it difficult to see the shark from above against the dark ocean water. The underside of the shark is light in colour so it blends well with the lighter water near the surface when viewed from below. Countershading makes it difficult for predators and prey to see sharks.

Sharks have an excellent sense of hearing with ears located inside their heads on both sides rather than external ears like humans. Sharks can hear best at frequencies below 1,000 Hertz which is the range of most natural aquatic sounds. This sense of hearing helps shark locate potential prey swimming and splashing in the water. Sharks also use their lateral line system to pick up vibrations and sounds.

Sharks have lots of teeth arranged in layers so if any break off, new sharp teeth can immediately take their place. Sharks can lose thousands of teeth during their life. Sharks' teeth can be found washed onto beaches.

