

## INTRODUCTION TO SHARKS

Sharks are fast-swimming fish. They have a skeleton made of cartilage instead of bone. Sharks are related to rays. They are among the oldest animals on Earth. In fact, the first sharks lived more than 300 million years ago. There are more than 300 species, or types, of sharks around today.

## HABITAT - WHERE DO SHARKS LIVE?

Most sharks live in mild or warmer oceans but others, such as the Greenland Shark (the oldest known vertebrate on earth- thought to live up to 400 years!!) , live in the cold Arctic waters. Sand sharks are mainly found at the bottom of shallow water, while the Portuguese shark lives in the deepest parts of the ocean. Most sharks are solitary but a few, such as the spiny dogfish shark, form schools, or groups.

## REPRODUCTION

Sharks reproduce in one of three ways:

1. female gives birth to live young (viviparous)
2. young hatch from eggs inside the female's body and then are born (ovoviviparous)
3. female lays rectangular, leathery eggs that become attached to rocks or seaweed. The young hatch days or weeks later. (oviparous)

Female sharks normally produce 2 - 20 young at a time.

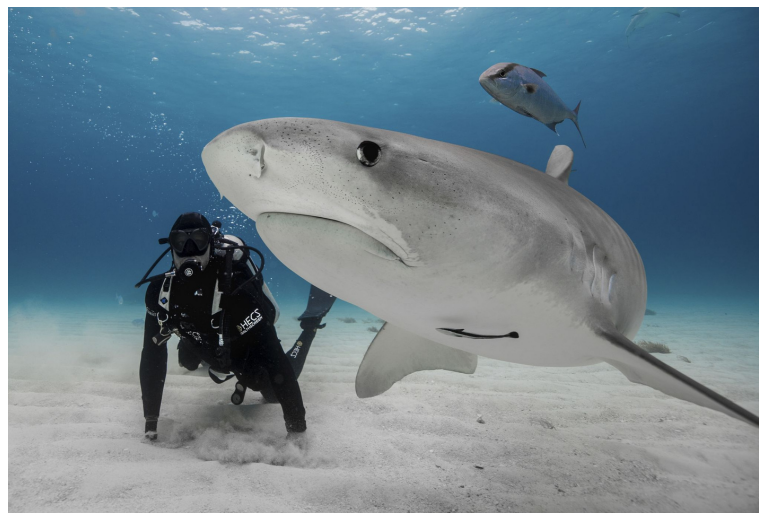
## WHAT DO SHARKS EAT?

Sharks use their excellent sense of smell to hunt for food. They eat plankton, shellfish, sea turtles, fishes, seals, porpoises, squid, or even whales. Sharks circle their prey and frequently approach from below. When excited by the smell of blood, sharks may have a "feeding frenzy." This means that they attack any object within reach and feed rapidly.

## HUMAN IMPACT ON SHARK POPULATIONS

Shark populations are in decline globally. 100 million sharks are killed in worldwide fisheries each year and habitat degradation, pollution and climate change are also impacting international shark populations. Controversial shark nets and drum lines (designed to protect human populations) add further to the decline.

Sharks live a long time (av. 20-30 years). Research suggests some may live for up to 400 years!). They grow slowly and take a long time to mature and reach reproductive age. This means that even if we slow the decline in shark populations now, they may take a long time to recover.



## SHOULD I BE SCARED OF SHARKS?

No! We don't think you should be scared of sharks. Few species will attack humans and only if hungry, disturbed, or defending their territory. The ocean is the sharks' home. When we visit their home we need to be aware and respectful of them. To put things in perspective...

- On average, one person a year is killed in a shark attack in Australia
- 5 people die from falling out of bed
- 10 people are struck down by lightning

## WHY WE NEED SHARKS

As apex predators, sharks help maintain the balance of life in the sea. They are a vital part of the food chain, controlling mid-sized predators and allowing small reef fish to thrive. Small reef fish take care of our amazing coral reef, therefore sharks help keep coral reef healthy. Without sharks, we would be denied the pleasure of exploring amazing underwater habitats such as the world's largest natural wonder, Queensland's Great Barrier Reef. The global economic impact on tourism and of declining fish stocks would be huge.



## ULTIMATE SHARK FACTS

Check out our ultimate shark facts and discover how much you know about sharks.

1. The longest known living vertebrate in the world is the Greenland Shark (one discovered shark is at least 272 years old). It's believed they may live for up to 400 years!!!
2. Baby sharks are called pups
3. Shark bones are made of cartilage
4. Many sharks have multiple rows of sharp teeth – they can grow tens of thousands in a lifetime
5. The largest species of shark is the whale shark
6. The collective noun for a shark is a shiver (or school, shoal)
7. The fastest shark in the ocean is the Shortfin Mako Shark (it can travel at up to 74k an hour)
8. The smallest species of shark is the Dwarf Lantern Shark (smaller than a human hand)
9. Sharks have eyelids
10. Sharks do not see in colour
11. 10% of shark species are bioluminescent – they light up in the dark
12. Sharks can get suntanned if they stay close to the surface for too long
13. The gestation period of a shark varies from five months to two years
14. Some sharks lay eggs (oviparous), others give birth to live young (viviparous), and some are a combination of the two - they start life inside their mother as an egg, hatch inside her and then are born live (ovoviviparous)
15. Egg laying sharks lay egg cases known as mermaid's purses
16. Unlike humans, sharks breathe through gills, so their nostrils are purely dedicated to smelling
17. Sharks are able to detect one drop of blood in 100 litres of water
18. Sharks can identify which of their two nostrils have picked up a scent – enabling them to determine the direction to swim to find food
19. Some species of shark can survive for up to 3 months between meals
20. Sharks can sense vibrations from 3 kilometres away



## WHAT CAN I DO TO HELP PROTECT SHARKS?

- Educate yourself and your friends
- Share your love of sharks on your social media channels
- Join a volunteer shark conservation organisation like [sharkconservation.org.au](http://sharkconservation.org.au) or [marineconservation.org.au](http://marineconservation.org.au) - make a donation if you can
- Join a beach clean or just clean as you go!
- Buy sustainable seafood and check restaurants do