

**What is an elasmobranch?**

An elasmobranch is a group of species that include sharks, skates, and rays. These species all have skeletons made of cartilage.

They also have sets of gills as well as a rough skin with small dermal denticles. They also lack a swim bladder which is a structure used by many fish species in order to maintain their buoyancy in the water.

**Why should we protect elasmobranchs?**

Elasmobranchs are a fundamental part of the oceans food chains. Many species act as apex predators keeping many other species numbers in check.

We should also protect them as we know little about their biology and studying them could be crucial for the continuing balance in the ocean. Elasmobranchs are also used by biologists as an indicator for ocean health.

Elasmobranchs especially sharks help to keep a high biodiversity in the environment by preying upon the most abundant species in order to allow species with fewer numbers to thrive.

**Did You Know?**

Elasmobranchs grow slowly and mature later in life as well as breeding infrequently making their wild numbers less stable. This is why they need our help to survive.

One major threat that elasmobranchs face is bycatch. Bycatch is the accidental catching of a fish species unintended for capture. Thankfully, no fisheries exist in Britain that capture directly endangered elasmobranchs.

The Angel shark and the Blue skate have both become critically endangered due to bycatch and this unnecessary practice could cause them to go extinct.

Illegal shark finning is also depilating shark populations in specific areas. For example, the Australian Institute of Marine Sciences Newsletter published in 2006 that shark finning was threatening populations in Northern Australia and due to it being done in secret, the illegal shark finning company was not being found.

Another threat that elasmobranchs face is habitat loss. Coastal development has put massive pressure on elasmobranchs. They will use the many feeding and nursery grounds as well as the sea grass meadows for their young.

Levels of pollution will also mean many elasmobranchs will also suffer from contamination as they have long lives and will be affected by it.

In addition to this elasmobranchs still to this day continue to face threat from overfishing. They continue to be harvested for human consumption and trade for their parts. They are fished throughout Europe for their meat, livers, cartilage, and fins. Shark fins have a huge demand in Asia where they are used in shark fin soup.

Legislation was passed by the European and Fisheries Ministers council that said that all sharks caught in European waters had to be landed and brought back with their fins naturally attached.

**Did You Know?**

The Sea Shepherds are a conservation company with a permanent search boat in the Galapagos Islands and they have been critical in disrupting the distribution routes for illegal shark finning boats.

## Elasmobranch Sustainability

Elasmobranchs also seem to be suffering from something that is affecting almost every ecosystem on earth: climate change.

It is affecting behavioural, feeding, and breeding patterns which could cause numbers to deteriorate and fall into extinction.

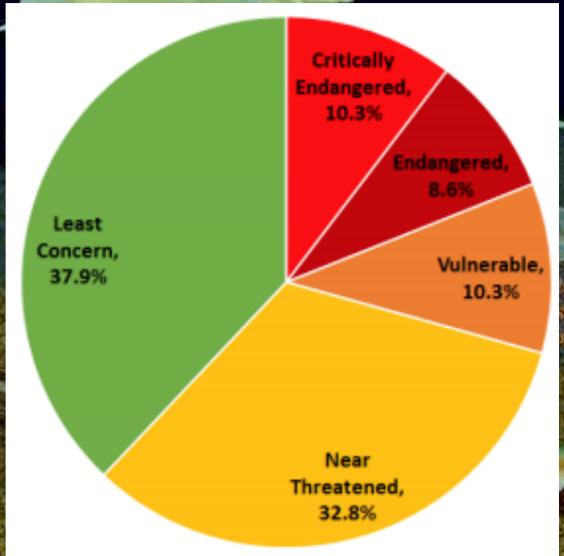
You should also reduce, recycle, and reuse where possible as well as reducing your general seafood consumption. We should never stop harvesting from our ocean however it has got out of control and needs to be monitored.

**What can you do?**

Never eat shark fin soup and try to avoid products that contain ingredients utilized from elasmobranchs. If we can reduce demand then the value will decrease. Also join volunteering groups and charities to educate other people about this issue. An example of this is the Shark Trust who are campaigning against the use of sharks and their parts.

**What does the world have to do?**

Firstly, we have to push for a global effort. Many of these people need educating and many will follow a more sustainable approach if shown. This also needs to be enforced with new legislation such as CITES . A global approach is needed for a reversal of the effects.



Elasmobranchs state in the wild.

Silky shark "*Carcharhinus falciformis*"

Great White shark "*Carcharodon carcharias*"

Blue shark "*Prionace glauca*"

Basking shark "*Cetorhinus maximus*"

Shortfin mako "*Isurus oxyrinchus*"

Scalloped hammerhead "*Sphyrna lewini*"

Devil fish "*Mobula mobular*"

Sand tiger shark "*Carcharias taurus*"

Blacktip shark "*Carcharhinus limbatus*"

Porbeagle "*Lamna nasus*"

Spiny dogfish "*Squalus acanthias*"

Common stingray "*Dasyatidae*"

Tope shark "*Galeorhinus galeus*"

Common sawfish "*Pristidae*"

Angel shark "*Squatina squatina*"

Starry smooth-hound "*Mustelus asterias*"

Blue skate "*Dipturus batis*"

Rabbit fish "*Chimaera monstrosa*"