



# SHARK FACTS

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## Basking Shark (*Cetorhinus maximus*)

The Basking Shark is one of the largest fish in the world, second only to the Whale Shark, *Rhincodon typus*. It can reach 11 m (36 feet) long, weigh up to seven tonnes and is the only member of the family Cetorhinidae.

This shark gets its name from its habit of apparently 'basking' on the surface, especially in calm sunny weather. Its dorsal fin and the upper lobe of its tail fin, and sometimes the tip of its snout, may break the surface when it is feeding.

### Description

Due to its considerable size, this species can sometimes be wrongly identified as the Great White Shark, when seen swimming in waters where both species can occur. It can be distinguished from other large sharks by the very long gill slits, which almost encircle the head. These overdeveloped gill slits are an adaptation to filtering huge quantities of plankton from the water. Although it still possesses teeth, these are tiny and serve little purpose in feeding. Instead, it uses modified gill rakers to filter out zooplankton from the water as it swims around slowly with its enormous mouth agape at the surface. It can filter the equivalent of a 50 m Olympic sized swimming pool in an hour. While essentially harmless to humans, people are advised not to approach this powerful shark too closely! Astonishingly, despite their huge bulk, these sharks sometimes leap clear out of the water.



Basking Shark © Sally Sharrock



Basking Shark breaching © Colin Speedie / Swiss Shark Foundation

Basking Sharks are variable in colour, dark to light grey on their dorsal surface and usually lighter underneath. Their dorsal surface often has a mottled pattern on the back which, along with distinctive patterns and scars, can be used to re-identify individuals.

### Distribution

They occur world-wide in cold to temperate regions of the Atlantic, Indian and Pacific Oceans. Although very widespread, they are commonly seen in open water near coastal areas in the

summer and autumn when plankton are abundant at the surface. Research suggests that these sharks are resident in our waters during the winter months, but they tend to venture beyond the continental shelf in search of deeper plankton. Consequently, they are rarely seen at this time of year.

Locally, Basking Sharks are usually sighted in British waters off the Cornish and Devon coasts in early May and are absent from November to March. They occur on the west Scotland coast and as far north as Norway in the summer. They generally occur in pairs but occasionally large schools of over 100 sharks are sighted.

### Reproduction

Basking Sharks pair in early summer in British waters and eggs hatch in uteri. The length of the pregnancy is unknown, but it may last from one to three years, and the young are born at a length of about 1.5 m. Only one pregnant female is known to have been caught by a fisher in Norwegian waters, giving birth to just six young. Females are thought to spend their pregnancy in an area where no fishing takes place (possibly in deep water) and may 'rest' for one year after giving birth before mating again.

Baby Basking Sharks are rarely seen until they are over 3 m long. Age at maturity is thought to be 12-16 years old (4.6 to 6.1 m long) for males, while it is estimated that females do not breed until they are 20 years old (8.1 to 9.8 m long). Their life expectancy may be over 50 years.

## Threats

The Basking Shark is very slow to mature, long-lived, and has very few young due to its long gestation period. These aspects make Basking Sharks extremely vulnerable to outside impacts, such as disturbance and harassment from boats or jetskis. A major concern is overfishing as a large number have been caught for their liver oil, meat, fins and cartilage, especially for the Asian market. The liver is very large (up to a third of its body weight) and yields 60-75% oil. This is a rich source of squalene (a low-density hydrocarbon) and vitamin A, and is used in manufacturing processes, to tan leather, as lamp oil and for lubricating machinery<sup>1</sup>. The meat is used for food or animal feed, and the cartilage processed into health food pills<sup>2</sup>. The fins are the most valuable commodity and single large fins may be worth over US\$ 10,000 in East Asia, as a soup ingredient<sup>1</sup>. For this reason, it is unlikely that Basking Sharks caught accidentally in fishing nets are released. In most cases, the shark is killed, the fins removed and the remaining carcass dumped at sea. Fisheries for these amazing creatures have existed all around the world, including Scotland, Ireland, Norway, Iceland, California, China, Peru and Ecuador<sup>3</sup>. These have all shown similar trends of high initial catches followed by a depletion of stock and long term closure of the fishery<sup>1</sup>.



Basking Shark stranded © Colin Speedie / Swiss Shark Foundation

## Conservation and Management

The Basking Shark is currently listed globally as Vulnerable by The IUCN *Red List of Threatened Species* and Endangered in the North Atlantic and North Pacific. The Basking Shark received Appendix II listing on the Convention on International Trade in Endangered Species (CITES) in 2002<sup>1,4</sup>. The table below gives some details of national and international protection for the species:

|                       |   |
|-----------------------|---|
| <b>United Kingdom</b> | The Basking Shark was first protected around the Isle of Man and later around Guernsey. In April 1998 Basking Sharks were listed on the Wildlife and Countryside Act (1981) and completely protected in British waters out to the 12 mile limit <sup>5</sup> . A UK Biodiversity Action Plan for this species was implemented in 1999 <sup>6</sup> . Protection in Northern Island Waters is currently being considered as part of the current review of the Wildlife Order 1985 <sup>1</sup> . |
| <b>Mediterranean</b>  | Basking Sharks were protected in Maltese waters in 1999. They are listed on Annex II (as an Endangered or Threatened species) of a Protocol of the Barcelona Convention for the Protection of the Mediterranean Sea, and on Appendix II of the Bern Convention on Conservation of European Wildlife and Natural Habitats <sup>7</sup> .   |
| <b>USA</b>            | The Basking Shark is fully protected from fisheries in Florida state waters and in Federal US Atlantic and Gulf waters by U. S. Marine Fisheries Service <sup>1</sup> . The Shark Finning Act (HR 5461) prohibits the landing or possession of fins without the entire shark carcass and since 1997, fishermen are prohibited from keeping 19 species of shark, including Basking Sharks.   |
| <b>New Zealand</b>    | The Basking Shark has some protection: targeted fishing is illegal, but sharks caught accidentally may be landed <sup>1</sup> .   |

## Research in progress

As well as Basking Shark observational studies<sup>8</sup>, scientists are using satellite technology to provide information on Basking Sharks in European waters<sup>9</sup>. The European Basking Shark Photo-identification Project (EBSPiP)<sup>1</sup> uses photographs to match and trace Basking Shark movements.

## What can you do?

- Follow the Basking Shark Code of Conduct (Available from: [www.baskingsharks.org](http://www.baskingsharks.org))
- Report your sightings of Basking Sharks to the Marine Conservation Society ([www.mcsuk.org](http://www.mcsuk.org)) or Marine Life Information Network ([www.marlin.ac.uk](http://www.marlin.ac.uk))
- Send your pictures of Basking Sharks into the EBSPiP ([www.baskingsharks.org](http://www.baskingsharks.org))
- Adopt a Basking Shark or join the Shark Trust ([www.sharktrust.org](http://www.sharktrust.org))

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