



General information: International protection of sharks and rays

How endangered are sharks and rays?

There are about 500 shark species and more than 600 ray and other cartilaginous fish species worldwide. Sharks and rays are particularly susceptible to overfishing because they usually mature late, live long, and have low reproduction rates. Overfishing has caused a 90 % decline in shark and ray populations since the beginning of modern fishery. The ecological significance of sharks and rays in the food web has not yet been researched fully, but one fact is certain: a loss of these predators will jeopardise the balance of the marine ecosystem.

According to the IUCN (International Union for the Conservation of Nature), a quarter of the world's sharks and rays are threatened with extinction. Only one third of all shark and ray species are classified in the category of "least concern".

What are the reasons behind the decline in sharks?

Overfishing and large-scale international trade in sharks and rays and their products are the main threats to the survival of these animals. Many shark and ray species are not managed sustainably but over-exploited. Often, there are no management systems, or they are not complied with.

In EU waters one problem is sharks and rays as by-catch in commercial fishing. Sharks and rays are caught unintentionally together with targeted fish (such as cod, plaice, and sole) and then thrown back into the sea dead or severely injured. Heavy bottom trawl gear (e.g. otter and beam trawls) poses the biggest threat. In some regions, the sea is literally ploughed through with this type of gear up to 20 times a year. For a better protection of sharks and rays it is necessary to establish exclusion zones for fisheries.

How were sharks protected in Germany up until now?

As a result of a German initiative the EU issued a fishing ban for the endangered shark species spiny dogfish and porbeagle already in 2010. The ban applies to EU waters and EU vessels.

How were sharks protected internationally up until now?

The Washington Convention on International Trade in Endangered Species (CITES) regulates international trade in endangered species of wild fauna and flora. It contains various standards of protection: species listed under Appendix I are considered threatened with immediate extinction, e.g., whales and sea turtles. Commercial trade in specimens of these species is prohibited. Species listed under Appendix II are in need of protection, e.g., many reptile species and orchids. Permits are required for their export and import. Additionally, proof must be provided that their export does not jeopardise the survival of the species (sustainability assessment/non-detriment finding).

Individual shark and ray species have been protected by CITES for some time already: since 2007 the **sawfishes** family has been included in Appendix I, which bans international commercial trade.

Basking sharks and **whale sharks** have been listed under CITES Appendix II since 2002, and the **great white shark** since 2004. Trade is only permitted if it is sustainable.

What will change in the protection of sharks and rays as of 14 September 2014?

During the 16th CITES meeting in March 2013, the Conference of the Parties agreed to list five additional shark and manta ray species in Appendix II. These listings will come into effect on 14 September 2014, as the Parties were given an 18-month period to resolve administrative and technical challenges with regard to implementing the listings. The following species are threatened or vulnerable to extinction according to the Red List:

- the **oceanic whitetip shark**, a subtropical-tropical shark species with a global range, found predominantly offshore in the open sea. Its fins are in great demand internationally.
- the **porbeagle shark**, a species in moderate climates in the Northern and Southern hemisphere. Its meat is very popular internationally and its population is particularly over-exploited in the Atlantic Northeast.
- three species of **hammerhead sharks**, mostly found in subtropical and tropical zones. Their fins are in great international demand while their meat is primarily consumed locally.
- **manta rays**, living in tropical and sub-tropical waters. Their skin, gills, and liver oil are traded internationally.

What is special about the new listings?

The new shark and ray listings are a milestone for marine species conservation, because for the first time marine resources of high commercial value have become subject to protection under CITES. The listed shark and ray species are important not only in terms of ecology but also for commercial trade. For years, especially Japan, China, and Iceland opposed their listing. Due to a major countermovement led by the EU (Germany in particular) together with the US, Brazil, Colombia, Ecuador, and many other countries, as well as numerous nature conservation organisations, the majority required to adopt pertinent proposals was achieved in 2013.

How does this new protection under Appendix II work?

Starting on 14 September, products of sharks listed under CITES may be traded internationally only if they come from sustainably managed shark populations. The CITES authority in the exporting country needs to determine whether this is the case or whether the export would have an adverse effect on the survival of the species. This type of sustainability assessment is the core function of CITES.

The authority will then provide a non-detriment finding (NDF) or decide against it, approving or prohibiting the export of the animals or animal or plant products in question.

One important consequence: a close cooperation between authorities responsible for wildlife conservation and those responsible for fisheries will become indispensable at every level, both nationally and internationally.

The EU has imposed even stricter rules: it requires importing countries within the EU to carry out separate sustainability assessments.

How does Germany support the implementation of the new regulations?

The Federal Agency for Nature Conservation (BfN) has prepared a "CITES Non-Detriment Findings Guidance for Shark Species" with funds from the Federal Environment Ministry. Using case studies, the feasibility of this manual has recently been tested by international experts. The manual is currently being revised based on the study results and will be made available to CITES authorities worldwide around the time the new protection regulations enter into force.

The manual envisages an evaluation process consisting of various steps during which conservation status, volume of removal from the wild through fishing, and established or lacking management measures will be offset against each other. The manual aims to establish a procedure that is as harmonised and structured as possible.

It has identified the following overarching principles for a reliable sustainability assessment for sharks:

- good communication between fisheries and CITES authorities at national and international level
- international coordination, especially on non-detriment findings (NDF) drawn up by two or more countries for jointly used shark stocks (e.g. sharks in high seas or migratory species)

- joint evaluations and NDFs of high seas stocks, including regional fishery management organisations
- exchange of methods used, in order to make NDFs comparable across different countries.

The manual is intended to ensure that the central sustainability assessment can be carried out correctly worldwide. This shows that Germany not only initiated the listing of endangered shark and ray species under CITES, but is also committed to an effective implementation of these listings in time once they enter into force.

What else does the German Government do to protect sharks in Germany?

The Federal Environment Ministry and the BfN have commissioned a research project that is analysing the status quo and risks to indigenous shark and ray species in the North and Baltic Seas. The project is evaluating historical and recent data to describe shark and ray populations and their habitat uses. The result of the evaluation will be the basis for a risk analysis and, if necessary, for recommending measures to effectively protect the species and improve their conservation status. The research project is expected to provide results in early 2016. These results will be used to determine whether protection measures need to be adopted.

At the upcoming meeting of the Conference of the Parties to the Bonn Convention in November this year, the Federal Government will also propose listing specific shark and ray species under that convention. For information on the Bonn Convention (Convention on Migratory Species / CMS) see: www.cms.int

In the context of the OSPAR Convention for the protection of the marine environment of the North-East Atlantic (Oslo-Paris Convention, OSPAR) (1992), a German initiative has led to the listing of several shark and ray species as “declining and threatened”. For more information see: <http://www.ospar.org>

Further information on CITES and sharks and rays can be found at: <http://cites.org/prog/shark>

Further information on the threats to sharks and rays worldwide can be found at: <http://www.iucnredlist.org/>

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