



FREQUENTLY ASKED QUESTIONS ON SHARKS

1. What role do sharks play in the ecosystem, what benefits do they give to humans?

Most sharks are predators in coral reef and ocean ecosystems, sitting on top of the food pyramid and helping control the balance of the marine environment. Losing one of these predators leads to uncontrolled population growth of other species. Sharks eat sick or wounded organisms to help maintain the ecosystem's health (Ayotte, 2005). Without them, the entire food chain will collapse.

In the Atlantic Ocean, for example, as many as 11 species of shark populations declined. This resulted in the population explosion of 12 species of stingrays up to 10-fold. Stingrays are a predator species of shellfish (bivalves). This increase in stingrays resulted in the decrease of bivalves, which then resulted in increased water turbidity levels, and the inability of seagrass to perform photosynthesis. The loss of seagrass inhibited the survival of fish and other organisms, creating what is known as a dead zone. This meant the loss of seafood for fishers, retailers, restaurants, and consumers, and thereby affecting the entire economy (Griffin, E., Miller, K.L., Freitas, B. and Hirshfield, M. July 2008. Predators as Prey: Why Healthy Oceans Need Sharks. OCEANA, Washington).

2. Are sharks protected? What are the regulations?

Of all the 1,044 shark-related species, 181 are listed as threatened by the International Union for Conservation of Nature (IUCN) Red List, while 488 are classified as Data Deficient. There is quite a large chance, however, that these species are also threatened to some degree.

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) includes 6 sawfish species (*Pristidae spp.*) in Appendix I and 1 sawfish species (*Prisitis microdon*), Whale Sharks, Great White Sharks, and Basking Sharks in Appendix II.

The Convention on Migratory Species (CMS), which focuses on migratory sharks, have basking and Great White Sharks listed on Appendix I, and Great White Sharks, Basking Sharks, Saw Fish, Long Fin Mako Sharks, Short Fin Mako Sharks, Shark Porbeagle, and Spiny Dog Fish in the Northern Hemisphere listed on Appendix II.

The United Nations Food and Agricultural Organization (FAO) appraises sharks as keystone species or species that have significant value in the ecosystem that determine and indicate the health and balance of an ecosystem. FAO issued an International Plan of Action for the protection of sharks, which became the mandate for its member states to create a National Plan of Action (NPOA). Not many countries have an NPOA on sharks.

Although politically, many countries believe they don't need to conserve sharks, scientists believe shark populations are critical and need to be protected. Various population studies have been conducted for sharks and many have been presented in scientific fora and journals.

Indonesia ratified the CITES, but hasn't included sharks in the list of protected wildlife species in Indonesian legislation. This has weakened efforts to stop the shark trade. The only effort so far that has been done to protect sharks in Indonesia is the development of an NPOA on sharks in 2011, but implementation is still widely questioned because it has not made regulatory legislation.

In other parts of the world, certain cities and states are also taking additional approaches to help save the sharks. The new legislation passed and signed into law has evolved, centring on banning finning, creating shark sanctuaries, banning shark fin trading, or a combination of these initiatives. It is now illegal to fish for shark in the waters around certain countries.

Some countries are also taking innovative measures to help reduce market demand for shark, such as in Canada and the United States where some states or provinces have initiated trade bans, making it illegal to possess or sell shark fin.

3. What does WWF do to save sharks?

WWF advocates the implementation of an NPOA on sharks using the Ecosystem Approach to Fisheries Management (EAFM) in Indonesia. WWF is also engaged in efforts to mitigate shark bycatch or the indiscriminate catch of sharks in tuna longline fisheries by advocating fishing companies to not use steel wires as branch lines.

Globally, WWF and its partners (academia, fishers, private sector, NGOs) are advocating the development and use of more responsible and innovative fishing gear to avoid the bycatch of sharks through the Smart Gear competition (www.smartgear.org). In addition, WWF works to increase Marine Protected Areas to help conserve valuable marine ecosystems and their biodiversity .

Specifically on whale sharks, WWF conducted a study to identify their critical habitats. Results will support the formulation of regulations for whale shark protection in Indonesia.

WWF has also helped raised awareness on sharks among the public through its Marine Buddies community. The WWF-Indonesia Seafood Guide also includes shark in the 'Avoid' list, which means people are strongly urged not to consume them. Through the Seafood Savers mechanism, WWF likewise mandates the cessation of shark trade by the industry.

Other WWF offices such as Hong Kong and Singapore are likewise working closely with seafood consumers, advocating sustainable seafood consumption via public campaigns, to help reduce market demand for shark fin.

4. What can people do to save sharks?

- Do not buy products made from body parts of sharks;
- Help advocate and disseminate knowledge about shark conservation to the public; and
- Get involved in any marine conservation activities: petition, clean up, reef rehabilitation, monitoring, etc.

5. How big is the world's shark populations?

There are 1,044 described Chondrichthyan species around the world – this includes sharks, rays, skates, and chimaeras. Of those there are 468 species of sharks and most of them are included in the IUCN Red List of Endangered Species because the population is considered to be alarming.

Scientists conducted various studies to calculate the population of sharks with various references. Population status of each species can be seen in www.iucnredlist.org.

6. Do governments need to do something to protect sharks?

Yes. Governments should insert CITES-listed sharks in national wildlife protection laws. They should also carry out and implement an NPOA on sharks using EAFM. They can also fund or conduct research and studies on the status of shark populations, implement adaptive management, implement fisheries surveillance, and strengthen wildlife law enforcement in the country.

WWF's immediate steps with national governments are to:

- Highlight concerns about the lack of data and the implications that this has for national, regional, and international management of shark species;
- Ensure they undertake the actions they have agreed to in international conventions; and
- Build support within the CTI countries for the adoption of best practice shark conservation and management measures in Regional Fisheries Management Organizations (RFMOs) and

other regional grouping of which they are members and encourage them to advocate for the adoption of measures in these fora.

7. Which is more of a priority, the protection of sharks or the income of local communities?

Both must run in synergy. Management of sharks, including its protection, aims to ensure the utilization of sharks in the long run for the welfare of the community.

8. Why is shark finning still occurring in Cenderawasih Bay National Park? What is WWF doing there?

Across Marine Protected Areas (MPAs) where WWF works, WWF's conservation strategy is mainly to support the protected area authorities in their efforts to strengthen the area's effective management.

Cenderawasih Bay is the largest Marine National Park (CBNP) in Indonesia, established in 1995 with a total area of 1.4 million hectares. Zoning and management plans were approved in 2008. After the enactment of these plans, the steps have been to: socialize the plans to the community; involve the community in surveillance and monitoring; empower the local community; and provide education and sufficient resources to conduct effective management. A collaborative management system is being built between the central government, two districts, communities in 63 coastal villages, and other partners. The process is still underway and the priority is on strengthening this collaborative management system.

Monthly resource use monitoring in CBNP is in its very early stages and is being conducted by the Park Authority with local communities (including incorporating local Fisheries Agency). To date, data and information about marine resources utilization in CBNP are not yet available. Surveillance activities through regular area patrol (joint patrols) in CBNP either funded or supported by the Park Authority and WWF have proven to be ineffective, irregular, and unable to cover all areas yet. In addition, the Fisheries Agency and the local district government of Nabire and Wondama Bay district have not been set-up and do not have the relevant fishing regulations, including shark fishing in the region. There is no local customary rights of indigenous peoples to manage permits for fishing vessels, including shark fishermen operating in the CBNP territorial waters. The absence of commitment and shared mechanisms in the regulation and surveillance of marine resource used by the Park Authority, district Fisheries Agency and local community (communal rights holders) allegedly also helped trigger the chances of shark finning in TNTC.

Overall anecdotal evidence shows that Indonesia continues to export extremely large amounts of shark fin, and the lack of real data on the stock status of Indonesian shark population makes it very likely that populations are already extremely heavily fished at this stage. Without any

current regulation or efforts to record shark fisheries data, many species are likely to already be overfished or close to overfished.

9. Can shark fishing be done in a sustainable manner?

WWF believes shark fishing can be done in a sustainable manner. Today's science and technology should be able to support the development of more sustainable ways of fishing, including shark fishing.

WWF supports the use of ecosystems-based management (EBM) in fisheries, where ecological, social, and economic benefits are balanced equitably. This means managing fisheries to limit the impact that can be tolerated by the ecosystem, maintaining the natural interactions between fish resources and ecosystems, using management programs that are compatible with the distribution of fish resources, using the precautionary principle in management and decision-making, and including the importance of ecological and human systems in the governance of fisheries (FAO, 2003).

10. Are there any sustainable shark fisheries in the world?

Yes. In 2011, a fishery for spiny dogfish in British Columbia was certified by the Marine Stewardship Council (MSC), making it the world's first MSC shark fishery, of which meat and lower-grade fin are products.

The MSC is an independent non-profit organization and the MSC assessment programme requires healthy fish stocks, minimal ecosystem impacts, and an effective fisheries management system. WWF believes that the MSC is the only credible eco-label currently available for wild capture fisheries.

However, this is only one small fishery in global terms, and the development of sustainable fisheries for sharks is likely to be far too slow to effectively conserve shark populations in most parts of the world. Other actions will be necessary to conserve sharks. Furthermore, WWF believes that current and future levels of demand for shark fins are likely to be far higher than can be met from sustainably managed fisheries. Given the dire future facing sharks, it is critical that the consumption of shark fins in key markets like Hong Kong is greatly reduced, to minimize this major economic incentive for fishers to target sharks.

11. How is the “current or expected level of demand” defined and what is the reference for this?

There is no clear understanding of the true level of economic demand for shark products. The closest approximation for current demand is current levels of consumption (market demand) and it is believed to be unsustainable for many shark species.

In terms of ‘expected’ levels of market demand, the market for shark fin, in particular, is likely to be increasing as the level of affluence in relevant Chinese communities increases and as the

population in these communities increases, not to mention the entrenched cultural significance of shark fin in the Chinese culture (although there are some signs that traditional views on shark fins are less culturally important to younger generations).

12. Is an immediate reduction in demand required to allow for shark recovery?

There is a need for a significant reduction in market demand in the short term in order to allow currently overexploited stocks to recover. In the longer term, the precautionary approach required to manage shark stocks sustainably is, in all likelihood, inconsistent with current levels of catch. As a result, sustained reductions in market demand would be required.

For those people who still insist on eating shark fins, buying sustainable shark fins should at least guarantee they are supporting sustainable fisheries. However, consumers should only purchase shark products with an MSC label and intact packaging. The label should carry the Chain of Custody (CoC) certificate number by which the customer can trace the origin of the product.

13. Are global shark fisheries primarily driven by the fin trade?

Some national and regional fisheries target sharks for their meat but the main driver of unsustainable fishing for sharks globally is currently the demand for fins. The following points support this contention:

- The proliferation of controls on shark finning is based on the premise that it is the value of fins that causes fishers to retain the fins and to discard the carcass.
- The unit value of shark fins far outweighs the value of shark meat. For example, between 2000 and 2005 shark fin accounted for 40% of the reported value of all shark products in trade but only 7% of the reported volume (Lack and Sant, 2008).
- Fins are a high value, low volume product that can be retained on board without using up significant amounts of the freezer hold capacity of distant water fishing vessels. Once dried and processed they can be kept for years before use, with only basic care.
- Fins are commonly found in association with fishers involved in IUU shark fishing (Lack and Sant, 2008).
- The meat of many sharks requires timely on-board processing to control the otherwise high levels of urea and bacteria so, where this is not possible, the meat is usually discarded.
- Only some species of shark meat command prices that are commensurate with the costs, and especially the opportunity costs, of processing and storing their meat.
- The size of the market for other shark products, such as skins, oil, cartilage and meat, is small compared to the market for fins.

However, it is acknowledged that the global market for shark meat is increasing and this may place increased pressure on shark stocks in some regions, thus potentially reducing the impact that shark finning bans may have on reducing shark mortality.

14. What traceability systems are needed?

The rationale for the use of traceability systems for shark products stems from the inherent vulnerability of shark populations to overfishing, the substantial difficulties in readily identifying the species and origin of fins, and the failure to date of national and international initiatives to provide sustainable management frameworks for sharks.

Species-specific management of sharks will require that shark products, predominantly fins and meat, can be readily identified to the species level. This will require the introduction of cheap, easily accessible technologies capable of delivering timely results where shark products can be identified throughout the supply chain.

If management of shark species becomes more rigorous, the incentive for IUU fishing may increase as fishing is driven “underground”. There will therefore be a heightened need for means by which legitimate and IUU product can be differentiated.

Experience to date with different kinds of documentation schemes clearly demonstrates that trade documentation schemes are far less effective than catch documentation schemes insofar as the former records only a portion of the catch along part of the supply chain. It is also the case, however, that catch documentation schemes relate only to a portion of total fishing related mortality (i.e. to retained product) and therefore we do not know the mortality rate of discarded animals (complementary observer programmes are needed to deal with discarding).

15. Are there any certification schemes for shark fins?

MSC is the only credible eco-label currently available for wild capture fisheries. MSC products should carry an MSC label and with intact packaging. The label should carry the Chain of Custody (CoC) certificate number by which the customer can trace the origin of the product.

The use of certification schemes for shark fins is the only clear and reliable way that consumers can have confidence that shark fins are taken from sustainably managed fisheries. There are currently no shark fin products that carry – or are likely to be eligible for – such certification.

16. Does WWF support finning bans?

Too many sharks are being caught around the world, in fisheries that are either unmanaged or poorly managed. Finning impedes the collection and identification of the species-specific scientific data that are essential for monitoring catches and landings and implementing sustainable shark fisheries management (as required under international agreements and statutes).

Since finning bans are, in some cases, effective at improving shark fisheries management, WWF will support finning bans/ regulations, where appropriate, as part of a suite of shark conservation measures taken by RFMOs and coastal states. However, finning bans should not be seen as the ultimate solution as finning is only one form of shark (over-) fishing. Banning finning may not reduce shark fishing effort in the mid- to long-term if demand for fin remains high, or demand for meat increases. Reducing demand for shark fin is as essential as ensuring sufficient management of all shark fishing.

17. How can you help?

Understand that sharks are not our enemies, but an integral part of life on Earth. For a living planet, stop consuming shark fins unless they are known to come from sustainably-managed fisheries, and legal trade.

If you are unsure, simply do not eat shark fin or other shark products. Your action will certainly help to rescue certain shark species from extinction and push for improvements in the overall shark fisheries and related trades. Help spread the word by explaining your actions to others.