

# Teaching Material on Biodiversity Conservation (TMBC)

## Shark Finning

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**Level:** Students

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**Kind of material:** Information sheet, references und exercises

**Purpose:** To make the students aware of shark-finning

### Process:

#### 1. Class meeting

- Introduction into biodiversity and shark finning
- Separation into expert groups
- Literature research and choice of topic
- Preparation of a brief presentation for the upcoming class meeting

#### 2. Class meeting

- Presentations and brief discussion about the chosen topic
- Discussions about the homework assignments

#### 3. Class meeting

- Discussion of the homework assignments
- Preparation of task 3 using the results so far
- Discussion of the results

## **Introduction**

The diversity of all known life forms has grown and changed ever since the beginning of Planet Earth, approximately 13 billion years ago. However, this biodiversity is increasingly endangered due to human impact. Many of the animals and plants sharing this magnificent planet with us are either endangered or already extinct. What we seem to forget, or often simply ignore, is the fact that those different life forms are the basis for and the foundation of our very own existence. The present teaching material is supposed to point out the devastating effect of human impact on the environment and simultaneously encourage us to treat this fragile environment carefully.

## **What is shark finning?**

Shark finning extremely threatens the existence of affected sharks and rays. It describes the offshore process of separating the fins from the actual body and keeping them while tossing the usually still living animal back into the ocean. Subsequently, the living fish sinks all the way down to the ocean bed where it eventually dies a gruesome death. Unlike commonly assumed not only the dorsal fins matter, but also all other fins which belong to the shark's body, apart from the part of the vertical tail fin where the spine is located. In fact, owing to the spine this part of the fin loses its value, and thus, makes it impossible to be sold. The same exact thing happens to rays and its fins, as well. As a matter of fact, shark fins belong to the most expensive products in the world. One hundred million sharks are being caught annually, round about 72 millions of those simply because of the made-up value of their fins. The numbers, without a doubt, stress the fact that finning is the main reason for the incredible decline in shark species.

Sharks are globally found in all kinds of diverse habitats and have developed plenty of different biological strategies. The reproduction rate of sharks is low. They reach maturity late and have few progenies. Due to their position at the top of the marine food chain, these properties are no problem for the preservation of the specie. Through the increasing human impact, for example by shark finning and the destruction of many habitats, however, there is an increasing decline in many species. They can only recover badly or not at al.

The majority of today's known shark species suffer a reduction of individuals and are part of the list of endangered species. Shark finning plays a major role. Fins are particularly demanded on the Asian market and achieve very high prices. Furthermore, shark fins are the main component of the shark fin soup, which is often served at festive occasions simply as a sign of prestige. Additionally to the high prices, shark fins also waste reasonably less stowage on a ship, and thus, many shark species have a higher risk of becoming extinct. The actual major problem is that there is no regulation or treaty stating the permitted catches. Future-wise, this is absolutely inevitable in order to assure a sustainable existence of this species.



Abb. 5: shark without fins (Rotman 2003)



Abb. 6: shark without fins on the seabed (Mitterer o.J.)

**Exercise:**

1. Create a brief presentation about a self-chosen issue by using the present literature (by oneself or in groups). Posters may be used for support.

Pitch your results to the other groups and afterwards discuss the chosen topic.

2. Open the website with the IUCN red list of endangered animals ([www.iucnredlist.org](http://www.iucnredlist.org)). Look for all endangered shark species by using the present search criteria listed below.

Look closer at the particular species in regards to the following criteria: Size, habitat, preferred water depth, cause for endangerment. Which characteristics do the particular species have in common and which hazards do sharks have to face particularly?

**Taxonomy:** Animalia (+) Chordata (+) Chondrichthyes (+) Carcharhiniformes ( ), Chimaeriformes ( ), Heterodontiformes ( ), Hexanchiformes ( ), Lamniformes ( ), Orectolobiformes ( ), Pristiophoriformes ( ), Squaliformes ( ), Squatiniformes ( )

**Assessment:** EX – Extinct ( ), EW – Extinct in the Wild ( ), RE – Regionally Extinct ( ), CR – Critically Endangered ( ), EN – Endangered ( ), VU Vulnerable ( )

3. In reference to the previous results, give your opinion to the following assumption:  
The shark fin soup is the main cause of the reduction of shark species'.

## Literature

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