

Elasmobranch Conservation

Chris Martinez



School of Marine and Atmospheric Sciences

(<http://www.somas.stonybrook.edu>)

What are Elasmobranchs??

Elasmobranch is the scientific term for a group of fish that includes **Sharks, Rays, and Skates**. The name comes from the root words *elasma* or "plate" and *branchii* or "gills", which describes the fishes' respiratory/breathing system¹. These fish all have skeletons made of cartilage and are carnivorous (meat eaters). There are over 1,000 species of elasmobranchs, ranging from roughly 15 centimeters to 10 meters in length!¹

The Problem

Human activity has greatly affected the world's oceans. Many elasmobranch populations are in serious danger of being driven to the level of local extinction.



Grey Reef Shark, *Carcharhinus amblyrhynchos*



Tahitian Stingray, *Himantura fai*

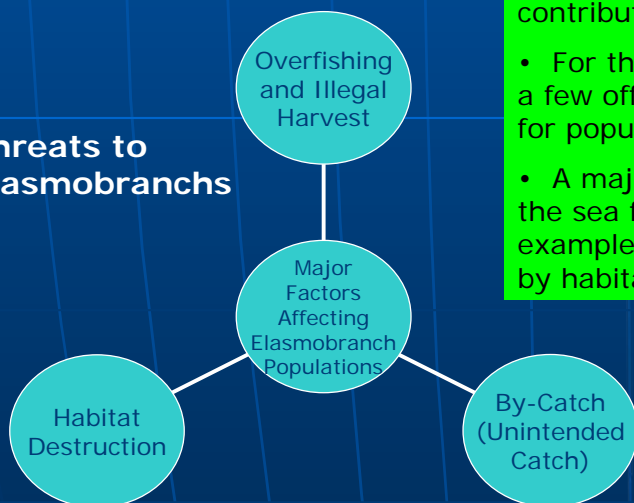
Courtesy of Gerick Bergsma,
UC Santa Barbara

Why Protect Elasmobranchs?

Certain characteristics of elasmobranchs make them especially sensitive to outside pressures...

- Many species have long life spans (some even live up to 100 years of age!)¹. This means that if an elasmobranch population decreases, it can take a long time to get back to its original size.
- Like humans, elasmobranchs cannot reproduce as soon as they are born...instead they must wait until they are mature. If young individuals die before they reach maturity, then they will never be able to contribute to the population.²
- For the most part, elasmobranchs only give birth to a few offspring per year.² This, makes it even harder for populations to rebound quickly.
- A majority of elasmobranch species live on or near the sea floor (stingrays and leopard sharks, for example), which means that they are affected greatly by habitat destruction.

Threats to Elasmobranchs



What can be done?

- Conduct research to gain more knowledge of elasmobranchs and better understand their needs
- Set aside areas in the ocean where elasmobranchs are protected
- Make strict fishing laws minimizing the impact on elasmobranchs

Sources

1. Ebert D.A. 2003. Sharks and Rays and Chimaeras of California. University of California Press.
2. Gallucci V.F., Taylor I.G. and Erzini K. 2006 Conservation and Management of exploited shark populations based on reproductive value. Can. J. Fish Aquat. Sci. 63: pp. 931-942.

For more information on elasmobranch conservation visit:

<http://www.sharkbight.com/education/Conservation.php>