

For my final project, I wanted to continue with my midterm topic and focus on the cascading effects that shark finning has had on the oceanic environment and the ecosystem services that it provides.

To many fisheries, shark finning is thought of as a way to meet the high demand for shark meat. The process seems simply enough; capture sharks, remove their fins, dispose of the extra unwanted carcass and carry the fins back to shore so that they can be sold and the meat within can be eaten. While it is obvious that this process has a detrimental effect on shark populations, many are unaware that this process effects much more than just sharks. Sharks play an important role in their environment and, as top-predators of the ocean, sharks aid in maintaining and regulating the underwater food web. By shark finning, fishermen are putting other species at risk for extinction which, in a domino effect, hurts oceanic food chains, coral reefs and their ability to protect coastlines from harmful waves, tourism and, even, the economies of many marine-dependent countries.

For my project, I have created a Campbell's soup can label for shark fin soup. The label stays true to Campbell's layout, however, I replaced the text with facts about shark finning and how it has a profound effect on the entire ocean, as well as, our everyday lives. Accompanying the soup can is a bowl of what one is "consuming" or "getting rid of" by supporting the shark fin market. This includes several other species within the oceanic food chain, coral reef systems, ocean-dependent economies and scuba diving and other marine tourist activities.

I intended for this project to be a form of awareness advertising, as educating people of the full-scale harms of shark finning is one of the few ways that shark finning can truly be stopped, along with government regulation and strict monitoring of fishing vessels. As the demand for this soup declines, so will the need to kill sharks for their fins. And seeing as shark numbers are dropping at a significantly fast rate, hopefully this will happen before they become extinct. Without sharks present in the ocean waters, certain species will become too abundant, which could lead to further complications. One of the main concerns of shark finning is that it is hurting coral reefs. According to a study done on a Fijian reef fish community, "a decrease in the abundance of top predators led to an increase in the abundance of coral-eating starfish, and consequently a 35% decline in corals and replacement by algae," (3). This loss of coral reefs is extremely concerning considering they play a large role in protecting beaches and shorelines from storm surges. Not only that, but coral reefs contribute to the booming economies of certain Caribbean Islands that rack in revenue from scuba divers, tourists and beach-goers.

## Annotated Bibliography

1. "Coral Reefs". MarineBio Conservation Society, 14 Jan. 2013. Web. Tuesday, March 04, 2013. <<http://marinebio.org/oceans/coral-reefs.asp>>.

This article discusses the benefits of coral reefs and the many ecosystem services that they provide. Because coral reefs provide such vital ecosystem services, such as shoreline protection, food-web and diet regulation and economic support, I made of point of incorporating some facts found in this article into my final project.

2. Eilperin, Juliet. "Decline of Big Sharks Lets Small Predators Decimate Shellfish." Washington Post. The Washington Post, 30 Mar. 2007. Web. 02 Mar. 2013. <http://www.washingtonpost.com/wp-dyn/content/article/2007/03/29/AR2007032901963.html>

This articles proved to be important and relevant in regards to my final project because it discusses the organization of the food web. It gives specific details as to which organisms play an important role in the functioning of the ocean and how these functions often benefit humans.

3. Dulvy, N.K., Freckleton, R.P., & Polunin, Coral Reef Cascades and the Indirect Effects of Predator Removal by Exploitation, Ecology Letters 7 (2004), 410-416. March 03, 2013. <http://wildaid.org/sites/default/files/resources/EndOfTheLine2007US.pdf>

Along with specific data of how much and where shark finning occurs, this detailed article questions why shark fin soup has become so popular. It stresses the importance of awareness ads and the need to educate the people who, not only, carrying out the finning process, but also those who consume this delicacy. Most people are unaware of the full range of harm that they are doing supporting this market and need to realize how shark finning must stop.

4. Meliane, Imene. Shark Finning. Tech. N.p.: Internation Union for Conservation of Nature, n.d. Google Books. Web. 02 Mar. 2013. <[https://docs.google.com/viewer?a=v&q=cache:uuVgOmMoKMsJ:www.flmnh.ufl.edu/fish/organizations/ssg/iucnsharkfinningfinal.pdf+%&hl=en&gl=us&pid=bl&srcid=ADGEEESgu8iqiX9egrb3BqmLmPCO\\_4cpZ\\_-OusQOlvcm1ZJYjlgGFnlxe7\\_gc03l7xPfvzRevO4eTfJpmLCKKFgqPwqkDDgShXXiJ3Zgx2dZUoe8\\_GsTIUxOv9O83AmzWFJ2IrtEyr5&sig=AHIEtbRD0PabxVOb0TLb3uOCYqAJPX\\_dsw](https://docs.google.com/viewer?a=v&q=cache:uuVgOmMoKMsJ:www.flmnh.ufl.edu/fish/organizations/ssg/iucnsharkfinningfinal.pdf+%&hl=en&gl=us&pid=bl&srcid=ADGEEESgu8iqiX9egrb3BqmLmPCO_4cpZ_-OusQOlvcm1ZJYjlgGFnlxe7_gc03l7xPfvzRevO4eTfJpmLCKKFgqPwqkDDgShXXiJ3Zgx2dZUoe8_GsTIUxOv9O83AmzWFJ2IrtEyr5&sig=AHIEtbRD0PabxVOb0TLb3uOCYqAJPX_dsw)>.

What I like most about this article is that it provides specific data as to how shark finning has affected oceans across the world. It gives statistics regarding the amount of shark finning that occurs and how the process itself is extremely wasteful and disruptive.

5. Griffin, E., K. L. Miller, B. Frietas, and M. Hirshfield. "Predators as Prey: Why Healthy Oceans Need Sharks." *Oceana* (2008): n. pag. Google Books. Web. 03 Mar. 2013. <<https://docs.google.com/viewer?>

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[+&hl=en&gl=us&pid=bl&srcid=ADGEESgSO9OfTOiJvGMas56ZweejhHVd7uvL0-fav-x9v-ghUKa5W\\_sfVleGlrCQvDL-1\\_MwvnO3HKEOCHw0PTY1Uld8mXJfFL-C7L5iwW2X9PzKa2tLGwNm\\_1pv25uvPP0kC\\_cgBXn&sig=AHIEtbQ4a4Z6oMoMN6wBiJAzO5w4VUy0jg>](https://docs.google.com/viewer?).

I chose this source because it discusses how shark removal has a cascading effect on how the ocean provides important ecosystem services for humans. Many view shark finning as a process that only harms sharks, but in a domino effect, it comes back to hurt us, as we are disrupting the natural flow and regulation of the seas.

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**Images used:**

A Clown Fish Hanging Out in an Anemone. N.d. Photograph. Okeanos. Web. <<http://www.okeanosgroup.com/blog/fish-2/for-the-nemo-lovers-clownfish/>>.

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# Final Project Images

