

# Unsustainable Fishing Methods on Bluefin Tuna Populations

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## Problem

The bluefin tuna population has been severely declining as a result of overfishing and illegal fishing, especially in the Atlantic Ocean. The demand for these fish has been largely by the Japanese sushi market, which consumes 40% of the bluefin reeled in. Their meat is so valuable, one bluefin in Tokyo's fish market was sold for \$1.76 million dollars at the start of the season. Bluefin tuna have dropped 96.4% due to overfishing.



## Background of Bluefin Tuna

- Bluefin tuna are the largest type of tuna and can live up to 20 years
- On average they are 6.5 feet in long and weigh 550 pound when full grown
- Bluefin tuna are in high demand for their meat
- One serving of bluefin can sell for \$25 in Japan
- 600,000 tons of bluefin are consumed annually in Japan alone
- They can be found living in the cold waters off Newfoundland and Iceland in addition to the warm waters of the Gulf of Mexico and the Mediterranean Sea



## Background of Fishing Methods



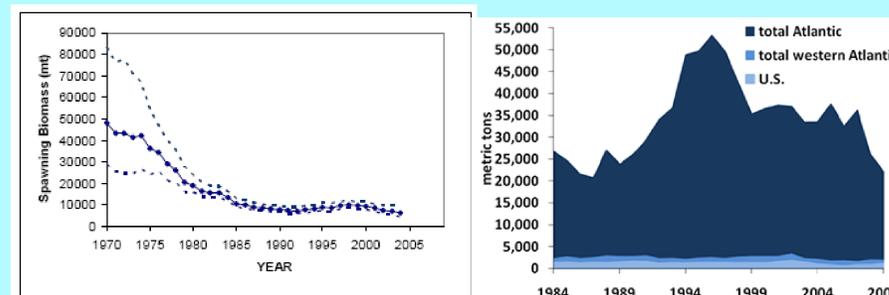
Fishing methods include:



- Pelagic longline fishing: massive ships put out miles of line and hooks rigged with bait, in hopes of catching tuna, swordfish, and marlin. Tuna need to swim to survive, as a result, in 2012 there was an estimated 239.5 metric tons of wasted tuna
- Netting: large ships circle schools of bluefin, rounding them up in huge nets. This creates bycatch, and also wipes out the younger tuna that are able to spawn
- Trolling: Dragging artificial baits behind a boat to attract and catch tuna. One of the most sustainable ways of consumption.
- Rod and reel: Using few fishing rods with bait to catch tuna. More sustainable.

## Results

The exact number of bluefin tuna left on the planet is unknown but it is estimated that as few as 40,000 adult bluefin tuna remain in the wild. While that may sound like a substantial number, this is over only about 4% of the bluefin population in the early 1900s.



Sources/Acknowledgements:  
<http://www.brighthub.com/environment/science-environmental/articles/113823.aspx>  
<http://www.worldwildlife.org/species/bluefin-tuna>  
<http://www.iucnredlist.org/details/21860/0>  
[http://mediterranean.panda.org/about/marine/bluefin\\_tuna/overexploited\\_for\\_its\\_value/](http://mediterranean.panda.org/about/marine/bluefin_tuna/overexploited_for_its_value/)  
<http://animals.nationalgeographic.com/animals/fish/bluefin-tuna/>  
[http://www.huffingtonpost.com/2013/01/10/pacific-bluefin-tuna-overfishing\\_n\\_2448967.html](http://www.huffingtonpost.com/2013/01/10/pacific-bluefin-tuna-overfishing_n_2448967.html)  
<http://www.bigmarinfish.com/bluefin.html>  
<http://www.ourendangeredworld.com/species/sharks-fish/bluefin-tuna/>  
[http://www.westcoast.fisheries.noaa.gov/fisheries/migratory\\_species/bluefin\\_tuna\\_harvest\\_status.html](http://www.westcoast.fisheries.noaa.gov/fisheries/migratory_species/bluefin_tuna_harvest_status.html)  
<http://thinkprogress.org/climate/2014/07/24/3463930/fed-considers-pacific-bluefin-tuna-fishing-ban/>

## Solutions

**Tagging:** The WWF have been tagging bluefin tuna. By tagging, scientists are able to understand the bluefin tuna to a larger extent including their migratory pathways so that better regulations can be placed on these fish.

**Government Restriction:** Under the Inter-American Tropical Tuna Commission (IATTC) Resolution C-14-06 (*Measures for the Conservation and Management of Pacific Bluefin Tuna in the Eastern Pacific Ocean, 2015-2016*), the total catch commercially in the U.S. in 2015 and 2016 cannot exceed 600 metric tons and no more than 425 metric tons in a single year.

**International Regulation:** From mid-July 2014 until December 31, 2014, Mexico banned commercial and recreational fishing of bluefin tuna in hopes the population numbers would be able to increase.

**Educating Consumers:** It is also important to educate buyers on the near extinction of the species and encourage them to avoid buying bluefin tuna and instead buy good alternatives, like Pacific yellowfin and albacore tuna.

## Conclusions

Helping Each Other

As some parts of the world have placed regulations on bluefin tuna, these populations have increased the numbers of tuna in some areas. Tuna are directly linked to one another because of the migration paths, hopefully these larger numbers of tuna can leak into other populations, making those populations increase as well.

Helping the Environment

Because tuna is a top predator, that means that they are an essential part in the pelagic ecosystems. They regulate populations. Without bluefin tuna, there would be a major discrepancy in the ecosystem as a whole because of the lack of population balance. Without bluefin, other species would become overpopulated, creating a ripple effect in the ecosystem.

Economic

Bluefin tuna are vital products in the economy. If bluefin tuna populations were to become extinct, the whole market for bluefin would collapse leaving thousands jobless, and some cities crippled. Not only are bluefin tuna environmentally valuable, but economically beneficial as well.