



Losing Nemo...

Wyllana Sinkler

The Start of Something New!

- Native Americans were fishing with nets, hooks, longlines, spears, and traps in order to catch fish before European settlers came along; using fish for food and fertilizer.
- In the 1760s, records show settlers trying to set limits during spawning periods.
- First agency for conservation was the US Commission on Fish and Fisheries (1871) renamed Bureau of Fisheries (1903) then merged into the US Fish and Wildlife Services (1940).
- Better machinery and boats allows fishermen to reach more places.

Extinction Video

Types of Factory Ships

Factory Stern Trawlers: different types of trawling nets.

Freezer Trawler: fully processes the catch on board to customers' demands.

Factory Squid Jigger: uses lights to attract squid and release “jigs” or hooks to catch the squid.

Whaler Factory

Etc...

World's Largest Floating Fish Factory



Lafayette

- Known as the “Mother Ship”
- Oil tanker transformed into fishing vessel in 2008.
- Not a trawling vessel, only used to store caught fish.
- Takes catches from other ships and sorts, processes, and freezes in order to ship to smaller vessels that then deliver the goods.
- Travels a maximum speed of 10 knots or 11.5 mph
- This ship started the fishing for species usually ignored by consumers like the Alaskan Pollock, which is now used in McDonald’s Fillet-O-Fish.
- Regulated to not work every single day of the year thanks to Oceana.
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Process

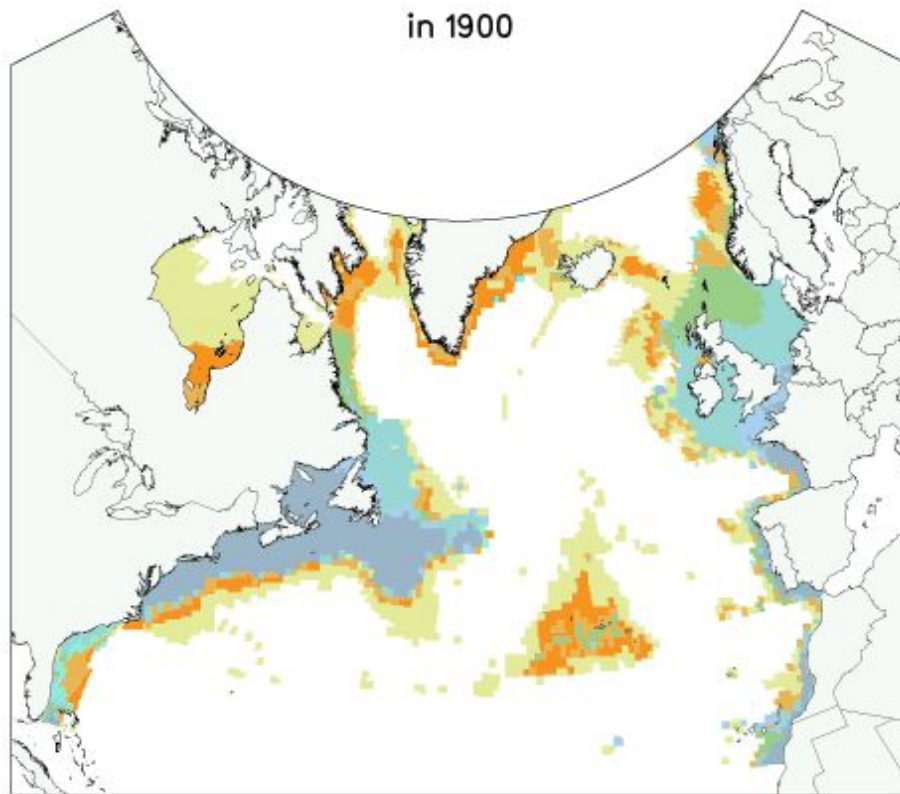
- Small boats replace by factory boats that use sonar equipment to track fish.
- Fishing lines are deployed with thousands of large hooks that can reach areas up to 170 kilometers wide and deep. Combing an area twice the size of the United States each year.
- The ships also have several plants for processing and packing fish, large freezing systems, fishmeal processing plants, and powerful engines.
- Because these ships have all the equipment necessary to freeze and package fish, they only need to return to their base once they are full. Even when the ships are filled, however, the fish are often transferred to refrigerated vessels in the middle of the ocean and are processed for consumption later
- The annual total global catch of fish is 124 million metric tons, which is equivalent in weight to 378 Empire State Buildings.

(Dartmouth)

Plenty More Fish in the Sea?

Biomass of Popularly Eaten Fish

in 1900



tons per km² 3 tons



11+ tons

information
is beautiful

Design: David McCandless // Map render: Gregor Aisch
source: Hundred year decline Of North Atlantic predatory fishes, V Christensen et al, 2003
Biomass less than 3 tons per km² for the bulk of the North Atlantic in 2000

PEW

Ecological Effect

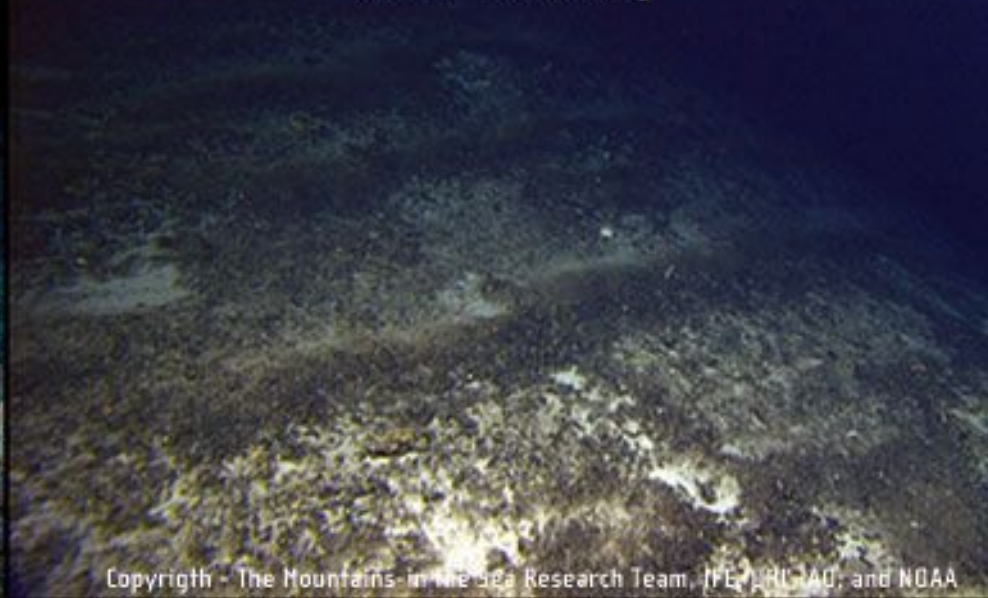
- Because there are no strict regulations, “tragedy of the commons” is going to occur.
- Species are and will continue to become extinct because more are being caught at a faster rate than production of fish.
- Threatens non-targeted species because of wide casted nets causing few to escape and those thrown back are either dead or dying.
- Metal rollers at bottom of nets destroy ecosystems at the ocean floor.
- Selection pressures: leads to alteration of heritable characteristics and higher fish mortality.

Before trawling



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After trawling



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What's The Problem?

- 52% of fish stocks are fully exploited
- 20% are moderately exploited
- 17% are overexploited
- 7% are depleted
- 1% is recovering from depletion

Revolution Clip 1:16-3:49



КРАСНОЕ МОРЕ



Economic Issues

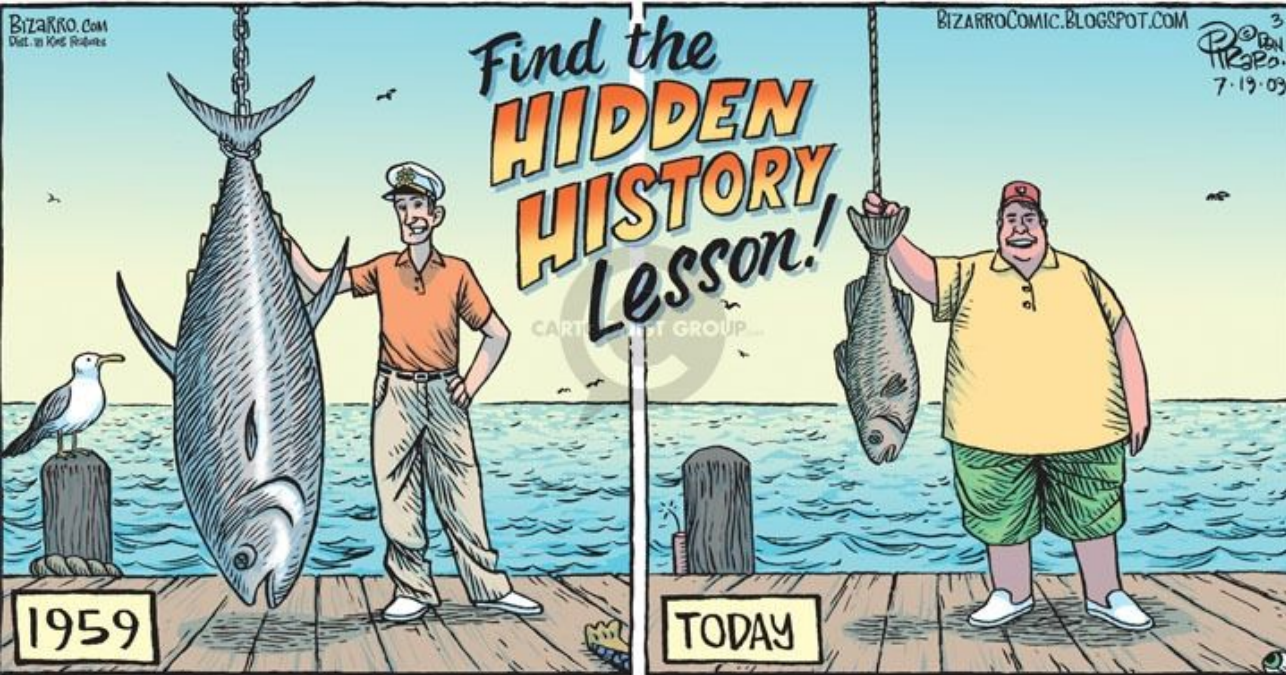
- Because of overexploitation of fish stocks, profits reach highs but will soon greatly decline.
- Mediterranean species will completely decline by 2020 even if change happens.
- Overfishing leads to less harvesting for each cycle.
- One of the largest “economies,” and it’s fail can lead to falls of other economies.
 - Fish is used for fish oil, food, fertilizers, medicine, etc. The lack of fish causes declines in other industries along with fisheries.

Social Impacts

- Some fishermen are giving up their jobs because fish are harder to find causing their families to go into poverty.
- An important part of meals to cultures and countries.
- Leads to international affairs becoming messy and leads to conflicts.
- It's taken 55 years to wipe out 90% of the ocean's' fish stocks.

Solutions

1. Set limits on allowed vessels.
2. Stricter regulations on ALL fishing vessels and how much fish they are allowed to catch and keep.
3. Use advanced technology, like drones, to monitor fishing activities.
4. Ban trawling or limit how much trawling is done in certain areas.
5. Bring awareness to schools, government officials, etc.



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Sites Used

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