

Wild-Caught Fishing Factsheet

Background

Just [under 50%](#) of aquatic animals killed for food is wild-caught, while the rest is farmed (aquaculture). This factsheet will focus on the former. When considering the types of aquatic animals targeted in wild-caught fishing, it is important to note that the list is very broad and includes finfish, crustaceans, mollusks, pinnipeds, cephalopods, and cetaceans. The term “fishing” is used when discussing all of these animals.

Wild-caught fishing is an exploitative industry. It is impossible to calculate exactly how many animals are caught each year. It is estimated that globally—between 2007 and 2016—[0.79 to 2.3 trillion fishes](#) were caught and killed annually. Global total marine catches reached [84.4 million tons](#) in 2018. No other global sector removes a comparable volume of wild animals from any natural habitat on earth. This estimate does not include sport fishing; illegal, unreported, and unregulated captures; or animals killed by lost and discarded fishing gear, caught for use as feed, or who died after escaping from fishing gear. It also does not include animals who die as a result of pollution, ship strikes, lack of food, or other reasons. Because of the sheer staggering number of wild animals caught, their suffering is a major animal welfare concern, and their loss is an environmental disaster.

Overfishing

Aquatic animals are overfished when too many are caught and those remaining cannot reproduce quickly enough to sustain necessary numbers for survival. This in turn compromises the balance of the surrounding ecosystem. Overfishing is often associated with commercial wild-caught fishing companies that take massive amounts of fishes and other aquatic animals.

The main commercial capture methods are:

- Purse Seine
- Bottom, Pelagic (Midwater), and Skimmer Trawls
- Gillnet
- Pound Net
- Traps and Pots
- Pelagic (Midwater) and Demersal (Bottom) Longlines
- Pole and Line Fishing
- Dredging
- Fish Aggregating Devices (FADs)

Bycatch

Bycatch is the incidental capture of non-target species, including non-target fishes, seabirds, marine mammals, and sea turtles, who are usually thrown back into the sea dead or dying. This is a concern with almost all fishing methods. Every year, approximately [9.1 million tons](#)—or 10.8% of the global catch—of bycatch are discarded.

That figure only applies to the legal and reported global catch. Numbers are not available for the amount of by-catch resulting from illegal, unreported, and unregulated operations.

Ghost gear

Ghost Gear refers to any fishing gear that has been abandoned, lost, or otherwise discarded. Countless aquatic species are killed annually by ghost gear. Fish, crabs, and lobsters often get caught in lost traps. Sea turtles, marine mammals, and seabirds get entangled in, or ingest, plastic fishing lines, causing them to starve or drown.

Aquaculture's Impact on Wild-Caught Fishing

Aquaculture also raises welfare issues for wild-caught fishes. The use of wild fishes to feed farmed species places direct pressure on wild populations and wild-caught fishing resources. Aquaculture can also diminish the number of wild fishes by habitat modification, food web interactions, the introduction of exotic species, and nutrient pollution.

Key Consideration

1. Methods of Slaughter

The welfare of fishes is marginalized even within the growing field of animal law. This is especially apparent regarding slaughter because fishes are excluded from any protections offered to terrestrial animals slaughtered for human consumption. Most wild-caught fish are left to suffocate in the air as they try to escape while their gills collapse, preventing them from breathing. Another choice is evisceration, in which the fish's internal organs are removed, excluding the brain and gills. This is usually done without prior stunning. Sometimes fish are put into ice water in a process called chilling. Chilling is extremely stressful for fishes and may lead the fishes to try to violently escape and may also cause them to suffer for a longer time, up to hours at a time. Tuna, swordfish, and other larger animals are often clubbed to death leading the animals to lose and regain consciousness causing the process to have to be repeated several times.

The World Organization for Animal Health (OIE), an intergovernmental agency that sets minimum (though non-enforceable) animal welfare standards for member nations, published recommendations on fish slaughter in 2015. Chapter 7.3, [*Welfare Aspects of Stunning and Killing of Farmed Fish for Human Consumption*](#), lays out general principles to ensure the welfare of fishes for stunning, killing, and transportation. These *recommendations* only address "farmed fish" and make no mention at all about wild-caught fishes.

Fishes and other aquatic animals are excluded from most laws that protect animals: many criminal state anti-cruelty laws, slaughter laws, transportation laws, and research and captive animal laws. The [US Humane Methods of Slaughter Act](#) requires that some

animals be rendered insensible to pain before being slaughtered. The Act applies to farmed land animals (but not birds) and does not apply to fishes. [EU Slaughter Regulation 1099/2009](#), includes fishes in its scope, but excludes them from virtually all the provisions in the act.

2. Recognition of the sentience of wild aquatic animals

There has been a debate about the welfare of fishes for decades, which centers on the question of whether they are sentient or have consciousness. The debate for fishes, cephalopod, molluscs, and decapod crustaceans has ended. Studies conclude that the perception and cognitive abilities of these animals often match or exceed that of other vertebrate animals. A scientific consensus concludes that fish experience pain in a manner similar to other vertebrates.

[EU Law \(article 13, TFEU\)](#) recognizes all animals as sentient beings, and requires the EU and Member States to take into account their welfare including in fisheries policies. Scientists now know far more about the capacities of aquatic animals, which include their capacity to experience pain and suffering. The [UK Animal Welfare \(Sentience\) Bill](#) is legislation proposed by the Government of the United Kingdom, that among other things will recognize animal sentience and will include fishes, cephalopod molluscs, and decapod crustaceans in recognition of their sentience and ability to feel pain.

Select Legislation and Regulations

1. Non-Enforceable

In 2015, United Nations' Member States adopted seventeen [Sustainable Development Goals](#) (SDGs) that set out specific objectives for countries to meet within a given time frame. [SDG 14](#) establishes the goal to "conserve and sustainably use the oceans, seas and marine resources." The U.N. established targets are formulated in anthropocentric terms, meaning that they are to be achieved for the benefit of humans. SDG 14 directly relates to aquatic animals and should include goals that pertain to their welfare as well. [The Code of Conduct for Responsible Fisheries](#) (the Code) was adopted by the Food and Agriculture Organization of the United Nations (FAO) in 1995. According to FAO, the Code recognizes the nutritional, economic, social, environmental, and cultural importance of fisheries and aquaculture. It is directed toward members and non-members of FAO; fishing entities; subregional, regional, and global organizations; everyone concerned with conserving fishery resources, managing fisheries, and developing fisheries; and other users of the aquatic environment concerning fisheries. It does not take into account the suffering or welfare of aquatic animals.

2. Bycatch Reduction

New technology aimed to reduce bycatch includes turtle excluder devices, metallic repellents (used to repel sharks and rays), trap net modifications, artificial illumination (may decrease bycatch of endangered chinook salmon), and revival boxes. Despite these new technologies and industries' grudging recognition of the issue, bycatch is still a significant problem.

[Turtle excluder devices](#) (TEDs) promote sea turtle conservation by addressing interactions between sea turtles and trawl fishing gear. Many shrimp trawlers operating in the United States waters of the Gulf of Mexico and South Atlantic are required by federal law to equip their trawls with a TED.

The [EU Habitats Directive](#) and [US Endangered Species Act](#) both aim to protect the most endangered and vulnerable species, under the respective jurisdictions, including aquatic animals. Requiring implementation of specific management plans for endangered and vulnerable species. Similarly, the [US Marine Mammal Protection Act](#) protect aquatic animals establishes a national policy to prevent marine mammal species from declining beyond the point where they ceased to be significant functioning elements of the ecosystems of which they are a part.

In 1987, Norway introduced a [ban on discards](#). The general rule is that the economic value of the fish caught in violation of the regulations is forfeited to the state. As such, where vessel quotas or bycatch limits are exceeded, fishermen may decide it is better to discard the illegal fish rather than landing it. As an attempt to counter such behavior, fishermen retain 20% of the forfeited sum of money if it is established that the illegal catch was taken unintentionally. However, this policy only applies to the whitefish sector.

3. Closure Areas

Nearly every country in the world has agreed to a goal of protecting at least 10% of the world's coastal and marine areas by 2020. As of June 2020, Marine Protected Areas that prohibit commercial fishing account for 23% of U.S. waters. Only 3% of U.S. waters are highly protected, prohibiting all extractive uses (or "no take"). Most MPAs restrict or prohibit harmful extraction uses to some degree, but not entirely and enforcement is problematic.

The [Central Arctic Ocean Fisheries Agreement](#) (Agreement) created important commitments. First, the parties have agreed not to authorize commercial fishing operations in the large portion of the Central Arctic Ocean for a period of time. Second, the Agreement creates a "Joint Program of Scientific Research and Monitoring for the Central Arctic Ocean," with the aim of improving understanding of the ecosystems of the Agreement Area. Third, it requires the inclusion of indigenous voices and knowledge. The Agreement is a preventative measure because no commercial fishing has taken place in this area yet, uniquely employing the precautionary principle.

4. Restrictions

A bill in Hawai'i, United States, passed by the 2021 State Legislature banning shark fishing took effect on January 1, 2022. [Act 51](#) makes it illegal to knowingly capture, entangle, or kill a shark in state marine waters. The new law applies to all shark species found in Hawaiian waters. This bill does carve out exceptions for people with permits, public safety purposes, and self-defense or defense of another.

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Further Readings

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