**Headline:** The Commercial Fishing Industry Is Destroying Vital Marine Ecosystems

**Teaser:** Fish are sentient beings subjected to cruelty to maximize profits for the multibillion-dollar industry.

By Vicky Bond, PhD

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**[Article Body:]**

The unsustainable practice of killing fish for human consumption not only harms them but countless other marine animals die as “unintended” bycatch in reckless fishing operations or lose their lives to the fishing industry’s widespread ocean pollution and habitat destruction, which is damaging our ocean beyond recovery—all for the pursuit of maximum profit.

Fish are unique animals with [complex inner lives](https://www.npr.org/sections/thesalt/2016/06/20/482468094/fish-have-feelings-too-the-inner-lives-of-our-underwater-cousins). They communicate with one another, recognize human faces, and even feel excitement when they see other fish. Like land animals, [fish can feel pain](https://thehumaneleague.org/article/do-fish-feel-pain). However, our broken global food system kills billions ([maybe even trillions](https://www.forbes.com/sites/michaelpellmanrowland/2017/07/24/seafood-sustainability-facts/?sh=454a08cf4bbf)) of these sentient individuals for human consumption every year.

While humans have caught and eaten fish [for the past 40,000 years](http://news.bbc.co.uk/2/hi/science/nature/5398850.stm)—with anglers taking to the water and waiting hours to reel in the perfect catch—global demand for seafood products has turned fishing into a [multibillion-dollar industry](https://www.sciencedirect.com/science/article/pii/S0308597X15000743).

Industrial fishing operations breed fish for human consumption and keep them in crowded tanks or pens. This kind of factory fish farming dominates today’s seafood market, raising many ethical and environmental concerns.

The fishing industry generally overlooks the welfare of fish entirely in its pursuit of profits. It doesn’t even measure fish as individuals—only referring to fish in “tons.”

**What Is Aquaculture?**

[Aquaculture](https://thehumaneleague.org/article/what-is-aquaculture) refers to farming fish and other marine species in barren, overcrowded tanks or pens—a far cry from the natural freedom of the sea. Aquaculture is [highly industrialized](https://www.vox.com/future-perfect/22301931/fish-animal-welfare-plant-based) and involves subjecting fish to the same intensive confinement as land-based factory farms. Aquatic farms cram as many individual fish as possible into small tanks or nets, leading to the fish barely being able to move. The overcrowding and filth make the water a breeding ground for parasites and pathogens. One particular parasite, [sea lice](https://www.greenmatters.com/p/what-is-sea-lice), spreads rapidly and feasts on the flesh and blood of fish, causing painful lesions.

While fish farms and wild-capture fishing operations may seem far removed from the factory farms on land, these profit-driven industries share a close connection. The fishing industry turns 20 million tons of fish into [fishmeal](https://www.npr.org/sections/thesalt/2017/02/13/515057834/90-percent-of-fish-we-use-for-fishmeal-could-be-used-to-feed-humans-instead)—ground-up fish bones and flesh commonly used for animal feed—each year, according to a 2017 NPR article. These “[protein pellets](https://ecohustler.com/nature/are-pigs-on-factory-farms-really-eating-more-fish-than-sharks-new-report-out-on-deviant-industry)” provide factory farmers with a cheap way to feed chickens and pigs before they are slaughtered. And, in a grotesque and cruel cycle, 70 percent of fishmeal [goes back into aquaculture](https://www.npr.org/sections/thesalt/2017/02/13/515057834/90-percent-of-fish-we-use-for-fishmeal-could-be-used-to-feed-humans-instead).

According to a 2019 Greenpeace [report](https://www.greenpeace.org/africa/en/press/7224/greenpeace-fishmeal-industry-stealing-regional-food-and-livelihoods-in-west-africa/?utm_content=1560951553&utm_medium=social&utm_source=twitter), the rampant growth of the fishmeal and fish oil industry in West Africa has threatened food security and people’s livelihoods.

Fish farms raised and killed [up to 171 billion](https://faunalytics.org/number-of-farmed-fish-slaughtered-yearly/) as of 2023, generating more than [$271 billion](https://www.globenewswire.com/news-release/2021/01/13/2158043/0/en/Global-Fish-Farming-Market-to-Reach-376-48-billion-by-2025-AMR.html) in profits globally in 2018. The industry’s profits are expected to grow by at least $100 billion more by 2025. Fish farming derives all this profit from the pain and suffering of sentient beings treated as mere raw materials.

“Be it recreational angling, large-scale fisheries, ornamental fish—any way that we use fish, we need to consider treating them better, as if they experience pain,” Lynn Sneddon, director of Bioveterinary Science at Liverpool University, told Science Focus, [stated](https://sentientmedia.org/do-fish-feel-pain/) a January 2024 Sentient Media article.

**The Growth of the Fishing Industry**

The global seafood market was valued at more than [$65 billion](https://www.statista.com/statistics/821023/global-seafood-market-value/) in 2019, and the industry’s profits are expected to grow even larger, reaching an estimated 103 billion by 2027.

Meanwhile, the U.S. commercial fishing activities generated $154.7 in 2020, [according](https://www.fisheries.noaa.gov/resource/document/fisheries-economics-united-states-2020-report) to the National Oceanic and Atmospheric Administration. Around half of the [8.34](https://www.statista.com/topics/1123/us-fishery/#topicOverview) [billion pounds of fish](https://www.statista.com/topics/1123/us-fishery/#:~:text=The%20U.S.%20fish%20market&text=Capture%20production%20in%202019%20resulted,salmon%2C%20flatfish%2C%20and%20cod.) caught in 2022 in the U.S. came from Alaska alone. As of 2020, the U.S. was the world’s [eighth-largest seafood exporter](https://www.statista.com/statistics/268269/top-10-exporting-countries-of-fish-and-fishery-products/).

Shrimp is the [most popular seafood](https://www.oceanbox.com/most-popular-seafood-americas-top-10) in the U.S. Wild fishing and shrimp farming pose [devastating ecological consequences](https://www.treehugger.com/shrimp-may-be-small-their-environmental-impact-devastating-4858308), turning large pockets of the ocean into barren wasteland.

**Why Is the Fishing Industry Bad?**

Commercial fishing harms countless marine species and habitats. Although humans cannot see the extent of the fishing industry’s destruction, the entire planet will feel its effects as vital ocean ecosystems disappear. Some of the practices that are causing extensive damage to the marine habitat are highlighted below.

*Bottom Trawling*

Bottom trawling is the practice of dragging an open fishing net along the ocean floor. While trawling nets target species like cod, shrimp, and prawns, these moving deathtraps catch any animal that crosses their path.

The indiscriminate practice of bottom trawling especially harms [sea turtles](https://www.fisheries.noaa.gov/national/bycatch/fishing-gear-bottom-trawls), who forage at the bottom of the ocean floor for food. When they get entangled in a bottom trawling net, turtles can suffer from broken shells and bones from the sheer weight of fish bearing down on top of them. They become fearful and stressed as they try—unsuccessfully—to escape the net. Many sea turtles drown from being trapped underwater for so long, and those that make it to the surface risk injury as they’re dropped onto the hard deck of a ship.

Sea turtles are just one example of the harm of bottom trawling. This practice damages the ocean floor ecosystems, which numerous species rely on for survival, making its impact even more devastating.

*Damage to the Ocean Floor*

The ocean floor is anything but dull and flat—its topography varies from plains to mountains, and it is home to countless underwater plants and sea life. And just as humans irreversibly destroy land above water to ensure the unsustainable growth of agriculture and other industries, humans are leaving the ocean floor unrecognizable, too.

Bottom trawling erodes the ocean floor, removing sediments. These deep-sea sediments contain diverse marine invertebrates and offer [rich foraging grounds](https://www.wildlifetrusts.org/natural-solutions-climate-change/ocean-sediments) for larger fish to feed on. Their benefits extend far beyond nourishing marine life. Like our planet’s forests, ocean floor habitats absorb and store carbon dioxide (CO2) from the atmosphere, helping us combat climate change. When bottom trawlers damage these environments, the seabed releases this stored CO2. Scientists estimate that bottom trawling [unleashes the same amount of CO2](https://www.nytimes.com/2021/03/17/climate/climate-change-oceans.html) into the atmosphere as air travel, according to a 2021 study published in Nature.

Scientists also rely on ocean floor sediments to [understand](https://www.whoi.edu/know-your-ocean/ocean-topics/climate-weather/paleoclimatology/) climate change. They study samples from the seafloor to uncover how human activity impacts our oceans. Their research on seafloor composition helps inform our environmental protection and policy decisions. By leaving less and less of these marine sediments intact, the fishing industry doesn’t just accelerate climate change—it takes away our potential to do something about it.

In addition to damaging the seafloor, bottom trawling damages the surrounding habitats. [Coral reefs](https://www.theguardian.com/environment/2010/feb/18/deep-sea-trawling-coral-reefs) are especially vulnerable to the effects of bottom trawling, as the nets tangle in corals and sweep up the fish living there. These vibrant habitats, typically [bursting with biodiversity](https://www.noaa.gov/education/resource-collections/marine-life/coral-reef-ecosystems), are home to everything from microscopic invertebrates to giant, flowering anemones. However, as bottom trawlers plunder these ecosystems, the biodiversity they support declines.

*Longline Fishing*

Longline fishers stretch nets with baited hooks across miles of ocean. The nets typically target tuna fish but longlines indiscriminately capture and kill them like bottom trawlers. In 2018, [longlining brought in $8.3 billion](https://www.pewtrusts.org/en/research-and-analysis/reports/2020/10/netting-billions-2020-a-global-tuna-valuation) for the fishing industry, accounting for 20 percent of the global catch by end value. But the practice severely harms [the endangered southern bluefin tuna](https://www.iucn.org/news/species/202109/tuna-species-recovering-despite-growing-pressures-marine-life-iucn-red-list), a species barely starting to recover from years of overfishing.

Longline fishing also captures [loggerhead and leatherback turtles](https://www.fisheries.noaa.gov/national/bycatch/fishing-gear-pelagic-longlines), and the hooks painfully penetrate their mouths, necks, or flippers. Sometimes, turtles swallow entire hooks, which become lodged in their digestive tracts. This hinders the turtles’ feeding and digestion, leaving them at risk of starving to death. [The IUCN Red List of Threatened Species](https://www.iucnredlist.org/) lists loggerhead and leatherback turtles as vulnerable, and longline fishing further decimates their populations.

Seabirds also suffer the consequences of longline fishing. Seabirds get caught in hooks and drown as they dive beneath the surface for food. According to a 2019 Guardian article, an estimated [100,000 birds](https://www.theguardian.com/environment/2019/jan/31/industrial-fishing-ushers-albatross-closer-to-extinction-say-researchers) die this horrific way due to longline fishing each year, further endangering species like [the remarkable albatross](https://www.smithsonianmag.com/science-nature/the-amazing-albatrosses-162515529/).

*Bycatch*

We know that practices like bottom trawling and longline fishing [claim the lives of iconic marine animals](https://courses.lsa.umich.edu/healthy-oceans/group-2/why-should-i-care-the-animals-impacted-by-bycatch) like sea turtles. In addition to turtles, species like sharks and dolphins face the most danger of becoming “bycatch”—animals unintentionally captured by fishing equipment. [The fishing industry doesn't report on it, even though bycatch impacts millions of fish and marine animals](https://www.fisheries.noaa.gov/feature-story/manage-global-trawling-impact-think-local).

As apex predators, sharks are essential to the natural balance of ocean ecosystems, but they are [rapidly disappearing](https://www.bbc.com/news/science-environment-58441142). A combination of bycatch and deliberate fishing (particularly for what fins) kills up to [273 million sharks](https://www.fastcompany.com/90205898/this-interactive-map-shows-how-fishing-is-killing-sharks#:~:text=Sharks%20are%20both%20hunted%20directly,each%20year%20from%20fishing%20activities.) each year, permanently altering the underwater ecosystems they call home and endangering some shark species beyond recovery.

The fishing industry also [devastates cetaceans like dolphins and whales](https://wwf.panda.org/discover/knowledge_hub/endangered_species/cetaceans/threats/bycatch/). A 2020 report published in the Endangered Species Research estimated that commercial fishing [killed more than 80 percent of dolphins](https://www.theguardian.com/environment/2020/mar/03/more-than-80-of-indian-ocean-dolphins-may-have-been-killed-by-commercial-fishing-study-finds) in the Indian Ocean. Although tragic, these examples only represent a [small fraction](https://ccal.ucsc.edu/bycatch/) of the animals who are victims of indiscriminate fishing practices.

*Toxic Water Conditions*

Industrial fishing practices harm ocean ecosystems long after the catch is reeled in. Fishing operations abandon old nets and gear in the water, leaving them to entangle marine life and contaminate the oceans with plastic for decades. This lost and discarded fishing gear—known as “[ghost gear](https://www.oceanographicmagazine.com/news/ghost-gear-greenpeace/)”—represents the oceans’ most significant source of plastic pollution. A 2023 Nature [article](https://www.nature.com/articles/s41586-023-06113-5.epdf?sharing_token=mmFek43VQuomZtqVbiFK99RgN0jAjWel9jnR3ZoTv0PT_nVl2fBkbQxXUPpr10QeHsOvc-lsZIN6xVWCZEk-Sj4pjAeW0HL5rLJT0IlMAuUUbrre0k63xmyJO9z0Q3MNhMzBkb6nZQ15eqKs2rgq5sCakulZBI4vufnl6G4VVA9G5YFre0_CEzGZFca1e-ScU40zufpd-z6wYBKpBXafi4xwqKhMY--jXsQHaza50ufrVxO03fHa1ZOic8jtm3ifowxlwahIR6WKKDjKuo-9iySw-iVp3ze6JUsevStDIAGTlSfv28ajlpQfKtdJSICqg4nJOjt-HT2oQdTrYtfbrMtq2VbGehNwaNCUzjitRyY%3D&tracking_referrer=www.theguardian.com) states, “Macroplastics represent 88 percent of the anthropogenic debris, and, like other debris types, peak in deeper reefs… with fishing activities as the main source of plastics in most areas.”

Fishing nets account for almost half of the Great Pacific Garbage Patch’s contents, a collection of floating ocean trash [larger than Texas](https://www.nationalgeographic.com/science/article/great-pacific-garbage-patch-plastics-environment).

[Aquaculture](https://thehumaneleague.org/article/what-is-aquaculture) farms keep fish away from their natural habitats, but their impacts extend beyond their operations and into the ocean. Crowded and filthy fish farms create the perfect conditions for diseases to spread. A study found that [disease-causing viruses and bacteria](https://thefishsite.com/articles/study-shows-significant-increase-in-disease-causing-dna-around-fish-farms) were twice as common in areas surrounding salmon farms. Parasites like [sea lice](https://www.nhm.ac.uk/discover/the-problem-of-sea-lice-in-salmon-farms.html) escape from factory fish farms, impacting wild fish populations. Sea lice infestations are painful and sometimes deadly, [growing more common](https://www.theguardian.com/environment/2017/apr/01/is-farming-salmon-bad-for-the-environment) as factory fish farms expand their operations.

*Overfishing*

Overfishing occurs when fish are caught and killed faster than their populations can replenish. Slow-reproducing species, [like sharks](https://www.theguardian.com/environment/2013/mar/02/sharks-risk-extinction-overfishing-scientists), suffer the most from overfishing.

“[O]ne-third of the world’s assessed fisheries are currently pushed beyond their biological limits,” [stated](https://unfccc.int/news/plenty-of-fish) a 2022 UN blog based on information from the Food and Agriculture Organization.

Commercial fishers will decimate fish populations to profit in the short term, ignoring that the practice destroys ocean ecosystems in the long term. This irresponsible fishing hurts marine life, habitats, and [human communities](https://www.washingtonpost.com/news/energy-environment/wp/2016/12/02/coastal-native-people-who-need-fish-the-most-are-losing-them/) that depend on the oceans for survival.

*Illegal Fishing*

Governments try to regulate the fishing industry to protect against overfishing, but this regulation has limitations. Commercial fishers continue to operate without licenses, kill populations in protected marine areas, and purposely leave catches unreported despite regulations. [Illegal, unreported, and unregulated](https://www.fisheries.noaa.gov/insight/understanding-illegal-unreported-and-unregulated-fishing) (IUU) fishing is rampant in the fishing industry. “Researchers estimate that at least 1 in 5 fish caught globally are caught illegally, with a total cost to coastal nations between… $10 billion and $23 billion a year,” according to a 2023 Pew [article](https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2023/08/despite-progress-illegal-catch-continues-to-reach-the-market). A September 2014 study published in the Marine Policy found that an [estimated 20 to 32 percent of U.S. seafood imports](https://www.sciencedirect.com/science/article/pii/S0308597X14000918) came from illegal catches.

Sadly, illegal fishing has a [disproportionate impact](https://www.fisheries.noaa.gov/insight/understanding-illegal-unreported-and-unregulated-fishing) on developing countries, as well as on those communities most dependent on the sea for food security and income.

**Managing Fishing**

Overfishing and illegal fishing are plaguing our oceans. Fisheries continue profiting from these reckless and dangerous practices because we lack the management and enforcement to stop them, especially in international waters.

When regulatory agencies and governments don’t have the resources to regulate ocean areas, these areas suffer from the negative impacts of overfishing and reduced biodiversity. A study by PEW Charitable Trusts found that “[insufficient and ineffective management of industrial fishing](https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2020/07/rules-and-consequences-how-to-improve-international-fisheries)” contributed to decreased ocean biodiversity.

According to a 2019 Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services [report](https://www.ipbes.net/news/Media-Release-Global-Assessment), “More than 40 percent of amphibian species, almost 33 percent of reef-forming corals, and more than a third of all marine mammals are threatened [with extinction].”

Illegal fishing has even taken a toll on [marine protected areas](https://observatory.wiki/The_%E2%80%98Blue_Economy%E2%80%99_Myth:_We_Have_to_Stop_Thinking_Like_the_Ocean_Can_Be_Run_Like_a_Business) (MPAs)—critical marine habitats—where fishing is prohibited but still occurs due to lack of enforcement of protections. In December 2022, world leaders took relevant steps to reverse the damage to our marine ecosystems by making a “commitment to protect and conserve 30 percent of the world’s land, freshwater, and ocean by 2030,” [according](https://updates.panda.org/target-locked-time-to-deliver-30x30-for-the-ocean) to the World Wildlife Fund. There is a need to ensure this goal is achieved by coming up with meaningful conservation measures and dedicating more human and financial resources toward this goal.

**The Cruelty of Fishing**

The fishing industry prioritizes profit above all else. Whether catching fish in the wild or raising them in a crowded factory fish farm, the industry operates with the same goal: kill the maximum number of fish in the shortest time. Its reckless pursuit of profit leaves ocean environments damaged beyond recovery and inflicts massive suffering on marine life everywhere.

These fish are not mindless creatures; each one is a unique individual. They have [complex inner lives](https://www.mentalfloss.com/article/81775/7-things-you-never-knew-about-fish), social dynamics, and problem-solving skills. They will go to great lengths to care for and defend their babies and even seek comfort from one another when they are stressed. As we learn more about the underwater lives of fish, it becomes clear that they are not so different from the land animals we know and love.

And, like land animals, [fish can feel pain](https://thehumaneleague.org/article/do-fish-feel-pain). The commercial fishing industry inflicts pain on an unfathomable scale. When they are suddenly and violently pulled from their ocean homes, the rapid change in pressure their bodies experience causes decompression sickness—the same illness that scuba divers refer to as “[the bends](https://www.abc.net.au/news/science/2018-12-14/even-fish-get-the-bends,-and-they-get-it-worse-than-humans/10612410).” The [resulting gas build-up](http://coastfish.spc.int/News/LRF/11/LRF11-StJohn.pdf) can rupture fish’s swim bladders or cause blood clots and hemorrhaging.

After fish are reeled to the surface, [they suffocate to death](https://www.iowadnr.gov/About-DNR/DNR-News-Releases/ArticleID/1454/How-do-fish-breathe). Their agonizing last moments can last anywhere from [a few minutes to a few hours](https://www.leisurepro.com/blog/ocean-news/how-long-can-a-fish-live-out-of-water/) or even months.

Many fish species must constantly move to get a consistent water flow over their gills. When they stop moving, they suffocate from lack of oxygen. Discarded fishing equipment like nets and longlines indiscriminately don’t only suffocate fish. Still, entanglement by such equipment also kills an estimated [300,000 whales, dolphins, and porpoises](https://www.livescience.com/can-fish-drown.html) each year, according to the International Whaling Commission.

The industry’s cruelty doesn’t stop at the pain it causes marine life. Investigations by the Environmental Justice Foundation [revealed](https://www.maritime-executive.com/article/blood-and-water-slavery-in-the-fishing-industry-revealed) slave labor in the fishing industry in 2019. Workers endured dangerous and filthy conditions aboard fishing vessels, spending long hours doing manual labor without food or water. In interviews, workers shared that their bosses would dock their already meager wages, verbally threaten them, and sometimes physically assault them.

All of this exploitation and abuse goes on to bolster the multibillion-dollar global seafood market. When it comes to maximizing profits, there are no depths to which the fishing industry won’t sink.

**What You Can Do**

The fishing industry sees only the bottom line. It abuses workers and animals to maximize profit. It plunders ocean ecosystems, turning once-vibrant, diverse environments into barren wastelands and weakening our planet’s defenses against climate change. However, we have the power to stand up to the fishing industry and end its destruction.

When we remove fish from our plates, we remove the industry’s incentive to destroy ocean wildlife and our environment. Instead, we can opt for foods that are kinder to animals and the environment.

Innovations in plant-based seafood are [challenging the fish industry](https://www.bloomberg.com/news/articles/2021-08-04/plant-based-sushi-faux-fish-rattle-the-multibillion-dollar-seafood-market), with companies offering fish-free, ocean-friendly versions of everything from sushi to fried shrimp. Some startups are experimenting with “[lab-grown](https://lamag.com/featured/as-wild-caught-species-vanish-are-lab-grown-fish-the-future)” seafood, harvesting natural fish cells to create authentic seafood without killing fish.

[Switching to compassionate, plant-based options](https://thehumaneleague.org/eating-veg/tips/the-first-steps) benefits the oceans and can make a huge difference for the planet.