

Fishing

There's plenty more fish in the sea ... or is there? We've always thought of the oceans as being a limitless source of food, but recent studies tell us that this is far from the truth.

Recent figures indicate that over 85% of the world's fish stocks are either fished up to full capacity or are over-fished.



What are some of the reasons for these dramatic declines?

- **Overfishing:** More than 30% of global fish populations are estimated to be overfished. What does this mean? It means we are catching so many fish that the remaining fish are unable to replace themselves. How has this happened? Essentially, global demand for fish has grown while fisheries attempt to meet this demand. We are now at a point where the global fishing fleet is currently two to three times larger than what the oceans can sustainably support.
- **Illegal, unreported and unregulated fishing:** Another challenge in addressing the problems associated with fishing is unregulated or illegal fishing. This can occur in both national and international waters, and can be on a small scale, or a large industrialised scale.
- **Bycatch:** This refers to the catching of non-target fish and ocean wildlife by fishing vessels. Essentially, when a fishing vessel throws out a net or line to catch a particular type of fish, other fish and animals will also be caught. Bycatch is one of the largest threats to maintaining healthy fish populations and marine ecosystems around the world, and some estimates put the global bycatch amount at 40% of the world's catch, equal to 63 billion pounds per year.
- **Bottom trawling:** This is a widespread fishing method in which fishing gear is towed or dragged along the seafloor. This method may cause substantial or even irreversible harm to benthic (seafloor) ecosystems.



The impacts of fishing on some of the top predators in our oceans have already proven to be devastating:

- We have lost 99% of European eels.
- We have also lost 95% of Southern Bluefin and Pacific Bluefin tunas.
- Salmon have disappeared from many rivers on both sides of the Atlantic.
- An increasing number of sharks and rays are being listed as threatened or endangered each year.
- About 80% of all the top predatory fish have disappeared from coastal areas of the North Pacific and North Atlantic.

What effect does all this have on ocean ecosystems?

The decline of populations eventually impacts the whole ecosystem. For example, when the numbers of top predators in the ocean begin to decline, smaller species at the bottom of the food chain (such as krill or plankton) begin to flourish.

This, in turn, can impact the rest of the marine ecosystem by increasing algal growth, which threatens coral reef health. Healthy coral reefs are essential to healthy oceans, with over 25% of all marine species relying on coral reefs for food, shelter, and breeding sites.



What about tuna?

Tuna are truly impressive fish, described by some as the king of the sea. There are fifteen species of tuna, with the Atlantic Bluefin being the largest. It grows to 700kg, 4.6 metres long, and can live up to 50 years old. One tuna fish can sell for millions of dollars. It is also eaten by people and cats around the world.

And they are running out.

Research suggests that populations of all three species of Bluefin tunas are on the brink of collapse. Atlantic Bluefin is listed on the IUCN Red List of Threatened Species as Endangered, and southern Bluefin is listed as Critically Endangered. Pacific Bluefin has suffered a decline of more than 96%, similar to southern Bluefin.

It also seems we are eating the last generation of mature Bluefin tuna: more than 90% of the Bluefin tunas recently caught were too young to have reproduced, meaning they may have been the last generation of this incredible species.

What can be done?

As large-fish populations (such as tuna) draw closer to collapse, commercial fishing fleets are moving deeper and deeper into the ocean, searching for fish further down the food chain. A 2006 study of catch data predicted that if fishing rates continue at the current rate, all the world's fisheries will have collapsed by the year 2048. And because billions of people around the world rely on fish for nutritional and economic benefits, this would have devastating impacts globally.

Around the world, governments, agencies, and organisations are developing plans to address the problems related to modern fishing practices and to ensure a sustainable fishing future.

Sustainable fishing means:

- **Maintaining healthy fish stocks:** This means ensuring fish stocks remain healthy and at a level where they can continue indefinitely. There are many ways to achieve this, such as through improved research into fish stock levels so that action can be taken before a fish population suffers a drastic or irreversible decline in numbers.
- **Reducing the environmental impacts of fishing:** Fishing operations need to be managed to maintain the structure, function, and productivity of the marine ecosystems they operate in. This includes tighter regulations around fishing practices (such as bottom trawling) and reducing bycatch.
- **Effective management of fisheries:** Managing fisheries more effectively means ensuring that relevant laws and quotas are complied with.



Is aquaculture the answer?

Of course, some would argue that we can always farm fish. How? Well, like fields of sheep on land, fish farmers make fields of fish in the sea. The fish are surrounded by big nets and are fed their favourite food until they're big and fat and ready to eat.

But we need to be careful with fish farms. Keeping the fish in a crowded space can make them sick, and sometimes, the sickness can spread to the wild fish. It is a bit like a cold spreading around to all the kids at school. Also, a lot of wild fish need to be caught and turned into food to feed the farmed fish.

If poorly managed, aquaculture can actually damage wild stocks and ecosystems. There is an increased risk of disease in the closely packed enclosures for these farmed fish, and these illnesses can be transmitted into the wild. Likewise, cross-breeding between escaped domestic fish and wild stocks can weaken the genetic make-up of the wild ones. As luck would have it, natural habitats are often destroyed to set up fish farms.

What can you do?

The most important thing you can do to help fish is to buy sustainable seafood. Look for the blue Marine Stewardship Council logo when purchasing wild-caught seafood and the green Aquaculture Stewardship Council logo when purchasing farmed seafood. Make a commitment to only buy and eat seafood that has been harvested and produced to the highest sustainability standards.

You could also download the Australian Sustainable Seafood Guide to use when you go shopping: <https://www.msc.org/en-au/what-you-can-do/eat-sustainable-seafood/sustainable-seafood-guide>

You can also use the Good Fish sustainable seafood guide app: <https://goodfish.org.au/resource/app-download/>



If you go fishing, don't be a fool with fish. Only catch what you can eat and release the rest.

Help keep marine ecosystems healthy by keeping waste out of our oceans. Cut down on packaging and products with toxic ingredients that end up in our waterways.

Support the creation of more marine sanctuaries. Write to your local member of parliament calling for greater protection of marine areas in your area or of those that you love.

Become an Ocean Guardian and join the global movement now!



Go to the Blue website to become an ocean guardian and take action for our ocean (<https://bluethemovie.org/take-action/>).

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