

## Catching the last fish in the Ocean

Or can we change our ways and allow them to recover?

*Our view of the sea is that it is huge, beautiful, full of life and inexhaustible.*

Charles Clover. *The End of the Line*, 2009. [Film] Directed by Rupert Murray.

*“Overall, 80 percent of the 523 selected world fish stocks for which assessment information is available are reported as fully exploited or overexploited.”* World Review of Fisheries and Aquaculture, 2008. United Nations Food and Agriculture Organisation.

The perception that the ocean has an endless supply of fish is no longer valid. For thousands of years we have enjoyed a bountiful catch, using hooks, lines and boats to pull masses of fish from the ocean. In 2006 the global fisheries catch of wild marine fish was some 92 million tonnes with approximately 40% of the catch being bycatch.<sup>[1],[2]</sup> That means



that about 37 million tonnes i.e. the bycatch, is either wasted and thrown back into the ocean dead or dying, or is being sold unmonitored. Fisheries data has shown that the global wild marine catch reached a peak in the late 1980's and has been declining ever since.<sup>[3],[4]</sup>

The fishing industry has responded by sending larger ships out further, with bigger nets, to catch fish species that live deeper down in the ocean. Globally, only 0.6% of the entire ocean currently has protection as Marine Protected Areas (MPAs).<sup>[5],[6]</sup> This means 99.4% of the ocean remains open to overexploitation, and a resource believed to be renewable is now being used beyond its ability to recover. The situation is out of control.

Scientists claim that the amount of large predatory fish, including marlin, swordfish and tuna for instance, have decreased by 90% in the past 50 years.<sup>[7]</sup> With the majority of top large predators already harvested the industry is fishing down the food chain, in effect altering the natural balances between predator and prey.<sup>[8]</sup> If current practices continue the ocean will consist of a highly simplified ecosystem with massively reduced productivity.<sup>[9]</sup> At present, 80% of world fish stocks are being harvested at or beyond the maximum sustainable limit, and a full 20% are being depleted beyond their capacity to ever regenerate.<sup>[10]</sup> The Southern Bluefin Tuna which swims in South African waters is now listed as critically endangered<sup>[11]</sup>, and the Atlantic Bluefin Tuna is being considered for registration in the United Nations Convention on International Trade in Endangered Species (CITES).<sup>[12]</sup> If all the fish in the world were one fish, as

## Useful Links

The following links will direct you to further information about whats happening under the sea and current efforts towards sustainable fishing.

### [WWF Honda Marine Parks Program](#)

All about Marine Protected Areas in South Africa.

### [Marine and Coastal Management](#)

MCM is the South African government regulatory authority responsible for managing all marine and coastal activities in South Africa.

### [South African Sustainable Seafood Initiative \(SASSI\)](#)

Find out which fish species are "green" sustainably harvested species, and which are "orange" threatened species and "red" endangered or heavily regulated species.

### [The Sea Around Us Project](#)

Excellent site on fisheries, ecosystems and biodiversity. Features fisheries data for global status and individual countries.

### [The Worm Lab](#)

Dr. Boris Worm's groundbreaking work focusses on global patterns and changes in marine biodiversity, especially in response to fishing pressure and climate change.

### [UBC Fisheries Centre](#)

University of British Columbia's Dr. Daniel Pauly is another path-breaker in fisheries science and revealed the global under-reporting of fisheries catches.

soon as we haul it out of the water we are throwing away about a quarter, are busy eating the remaining body as fast as possible, and assuming this continues, leaving just the tail to our children. Our grandchildren may get nothing.



Over 200 million people globally and 9 million in Africa rely on fish as their primary source of food and income.[13] With the global fishing industry receiving estimated government subsidies of R220 billion per year to remain financially viable[14], a new breed of 21st

Century satellite-guided deep sea super-trawlers are now catching previously inaccessible fish, using radar, sonar and huge nets which can be linked up to cover over 90km. The mouth of the largest trawling net in the world can be filled by 13 Boeing 747s[15], and in a single expedition one super-trawler can catch the same amount of fish as 7000 subsistence fishers would catch in a year.[16],[17] Some of these super-trawlers drag metal rollers, chains and huge metal doors along the ocean beds, ripping up the seafloor and destroying all the marine life that lives there.[18] The sediment trails left by these bottom trawlers are visible from space.[19]

At the current rate of exploitation, complete depletion of the fishing stock is a fact. With greater depletion in the northern seas, the fisheries in the southern seas and around Africa for instance are being depleted by large distant water fleets from Western and Eastern Europe, and East Asia.[20] For the local fishers living along these coasts that use more traditional methods to catch fish, a socio-economic and food security crisis is all they receive from the multi-million dollar government contracts that provide national access agreements to foreign fleets. Almost all of the fish caught by foreign fleets in African waters is sold to the industrialised nations of the north, while the weaker enforcement capacity of developing African nations facilitates illegal and unreported catches, further threatening local livelihoods.[20] Given the scientific data reporting the increasing depletion of global fish stocks, and the massive government subsidies granted for large-scale commercial fishing fleets to remain profitable, we must ask ourselves the question: "Is this the right thing to be doing?"

The South African government grants limited access agreements to foreign fleets and provides approximate annual subsidies of R208 million to fuel local fleets as well as R210 million towards fisheries research, management, and maintenance of Marine Protected Areas.[21] In 2005, the local fish stocks of Kingklip, Big Eye Tuna, Southern Bluefin Tuna, Cunene Horse Mackerel, Cape Rock Lobster, Southern Spiny Lobster and Perlemoen were all reported as being overexploited, being fished at more than the sustainable limit, and facing the threat of collapse.[22] Yet in 2007, over 500 000 tonnes of a total catch of 670 000 tonnes was exported.[23] With deep-sea trawlers fishing down the food chain and simplifying the ecosystem, the impact of local recreational and subsistence fishers increases. These small-scale fishers target certain species within an already weakened food chain, weakening it further still.

The global trend is clear, and a recent review indicates that the global fishing fleet has a capacity 2.5 times larger than global fish stocks can sustain.[24] Scientists such as fisheries Professor Dr. Daniel Pauly have uncovered a global

#### **MPA Global**

Global database of Marine Protected Areas.

#### **End of the Line: Imagine a world without fish**

The world's first major documentary about the devastating effects of overfishing.

#### **Bay Management Proposal**

A local stakeholder-based initiative to harness the immense socio-economic potential of the Bay of Plettenberg Bay through sustainable local marine resource management.

underestimation in the reported fisheries catches<sup>[25]</sup>, and Dr. Boris Worm's research suggests an end to seafood as we know it by 2048.<sup>[26]</sup> We may be catching the last fish in the ocean. This crisis situation however also heralds opportunity. There is still time to turn this around.

We have enough fishing stocks left to allow them to recover if given the chance. With all the information, technology and experience needed to replenish the global fish stocks and keep fishing as a viable livelihood and economic activity for millions of people, now and into the future, the missing piece is to change the way we use this gift; our ocean.

With less than 1% of the ocean protected by Marine Protected Areas (MPAs), it is clear that more needs to be done. It is estimated that 20 to 30% of the global ocean needs to be protected in order to restore the fishing stocks.<sup>[27]</sup><sup>[28]</sup> Coastal areas provide 90% of the global fish productivity,<sup>[29]</sup> and MPAs provide a safe habitat for fish stocks to grow, providing fishers with a sustainable supply for the present and future. Scientific studies on MPAs show that they rapidly restore ecosystem health, giving back life to our marine environment.<sup>[30]</sup><sup>[31]</sup> While effective, MPAs provide only one way amongst many to allow fish in the ocean to recover and restore the ocean's abundance.



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## Here's what you can do now to restore the ocean's fish

If you eat fish then learn to identify fish that are caught sustainably i.e. "green fish" from the SASSI pocket brochure (South African Sustainable Seafood Initiative. See [www.wwf.org.za/sassi](http://www.wwf.org.za/sassi)). Also check the back of frozen or fresh fish packaging that you buy at the supermarket for the "Fishing for the Future" logo and SASSI "green fish" logo. Ask your local restaurateur what fish is on the menu and if it is "green fish"? Questions to ask include: What fish can I order that is not endangered? Is it caught legally? Which ocean does it come from and how is it caught? Eating fish caught in trawl nets has a destructive effect.

If you catch fish then purchase your fishing permit at the local Post Office and abide by the fishing regulations. The regulations are in place to ensure that fishing in the long-term remains possible. Learn what fish can be caught, their bag and size limits and comply with these, taking only what you need. Also practice tag and release fishing if you do not need to eat the fish. Taking all your litter home with you after a fishing trip will also show other people using the coast that fishermen do care about their coast. Ask at your local conservation office if you need any help. Contact CapeNature Goukamma 044 343 0042, CapeNature Plettenberg Bay 044 533 2125 or SANParks Tsitsikamma 042 281 1607.

Everyone can place pressure on the SA government to manage our fisheries wisely in order to restore fishing stocks, rather than them making decisions based purely on financial or political considerations. Write letters, speak out, and make sure that your local and national government authorities know that you want them to manage the oceans wisely. International and South African law states that the ocean is the common heritage of all people. You have the right to help to restore the ocean. It is your future and you make the choice. If you want more fish, you can make a difference if you act now.

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