

# Sharks save Humans

by Christopher Bartlett

images by Paul Hunter

The planet's oldest creatures are under global threat, yet could be the key to our survival.

Deforestation, excessive combustion of fossil fuels, CFCs, pollution, and CO<sub>2</sub> emissions have all been linked to climate change and the end of life as we know it. Whilst institutions spend millions on researching carbon footprints, and the public donate millions to offset theirs on land-based projects such as planting more trees or improving developing nations' energy efficiency, virtually nothing is being spent on preserving the balance in the main carbon dioxide-consuming, oxygen-producing interface that covers 7/10th of the planet; the oceans. In fact, billions of dollars are spent every year destroying this precious, life-source giving eco-system. Eh? What? How? you say, and what's this got to do with man-eating marine predators? Absolutely everything.

At least 70% of Earth's surface is not earth at all; it is seawater. In this seawater there is a tiny life-form called phytoplankton. This microscopic organism uses carbon dioxide and releases oxygen through photosynthesis just like the trees that we want to save, except that it does it on a much greater scale. It is also at the bottom of the food chain in our oceans, being the staple of certain fish and mollusc species. These species, and all the other species in the ocean,

are kept in check by the predators above them in the food web, which is made up of the many species of shark that maintain the fine marine equilibrium that is a source of food, which controls the climate, and that ultimately gives us the great majority the air that we breathe.

Sharks contribute to eliminating diseased and genetically defective marine life and help to stabilize fish populations, and although we do not know enough about marine ecology to understand the exact impact of this incredible onslaught on sharks, there will be serious consequences in the underwater environment



As a small but real example, removing sharks has increased octopus populations resulting in greater predation on lobsters and the collapse of the Tasman spiny lobster fishery. Yet these sharks are being actively hunted and an estimated 100 million are killed every year. In some species only an estimated 10% of their population remain, but for how long?

Schools of hundreds of magnificent (and harmless) Basking sharks used to be seen off Britain's coasts; today any sighting is a rare find.

Until the early 80's main threats to sharks, who have been in the ocean for 400 million years (some 150 million years before the first life-forms crawled out of the sea and became dinosaurs), had been the odd shark hunter, some recreational fishing, and as a by-product of commercial fisheries. (Remember cheap "Rock" or "Flake" in the fish and chip shop – well it was a more marketable name for shark). Then the popularity of the Oriental shark fin soup rocketed through a combination of the political rehabilitation of the once elitist practice and rapid expansion of middle classes due to economic growth in the Far East.



As a status symbol, the so-called "food of the emperors", it is the dish to be seen eating in a restaurant and offering to guests at a corporate dinner or wedding banquet, and is at the heart of a hugely lucrative multi-billion dollar business.

In fact only drug trafficking beats shark-fin dealing for profitability, and often involves Far Eastern mafia overlords. The result was a massive upswing in the international fin trade, prompting fishermen worldwide to target sharks for their fins and to remove the fins from sharks caught as bycatch in other fisheries. Fin traders have systematically spread the word that fins are valuable to fishermen the world over, often providing equipment and monetary advances in order to secure fins, building secret drying and storage facilities near marine reserves, and bribing and coercing officials to look the other way. Fin-related murders have been documented in Africa, Asia, and the Pacific, and given the margins involved, it's hardly surprising. One of many dealers on one of the 6,000 inhabited islands of Indonesia can supply more than 500 kilos per month. A wholesaler close to the top of the food chain selling to a restaurant charges in excess of \$600 US per kilo, whereas a lowly Third-world fisherman might get \$2. The end-consumer gets to pay upwards of \$90 a bowl. And for what? Well, basically, chicken or pork broth. The fin actually adds no flavour at all and is just a texturing agent.

Other popular and equally pointless shark products that drive demand in the Far East are a myriad of pills, creams, and treatments made from shark cartilage based on the belief that sharks are strong and resilient and by ingesting or absorbing its structure (sharks have no bones) the consumer will develop these characteristics. There is no scientific proof supporting these claims and sharks also suffer from cancer and other diseases too. Given that larger sharks are also suffering from high concentrations heavy metals such as mercury, these products are actually harmful. Independent surveys have revealed higher than safe level of mercury in shark fins including specimens with up to 42 times the recommended maximum content, and in the summer of 2008 a Chinese lady who claimed to eat sharkfin soup at least once a week died from mercury poisoning.

Little is known about the numbers and movements of some species, of which there are more than 450 known species, in fact a new species of Hammerhead was discovered in the Atlantic in 2006, the same year the Epulette or "walking" shark was first scientifically recorded in Papua New Guinea. What is known for a fact is that they have relatively few young and only reach sexual maturity at a relatively late age, sometimes as late as 25, meaning that they are slow to reproduce and some species are believed to be on the point of extinction.



Great! you may shout. Good riddance to the despicable man-eating beasts, you may chuckle. One less to bite my flabby arse when I go swimming, you may rejoice (momentarily forgetting your newly acquired oxygen-production-and-marine-ecosystem-regulation-malarkey wisdom). Unfortunately, you have spent all these years anxiously looking towards the horizon and not daring to swim out too far from the other holidaymakers for no rational reason whatsoever. Unless believing a Hollywood film script is a rational reason. On average five people die in shark attacks each year and only one death was recorded for 2007. Ostriches account for 100 humans annually and in one year crocodiles chomp an estimated 500 humans, more than sharks do in a century, yet these reptiles are protected in many countries.

Nearly all shark attacks are a case of mistaken identity or self-defence. We are not part of any shark's diet, and shark bites rarely remove flesh from victims. In fact the majority of people bitten survive; there are around 60 bite victims each year. So even if you were to be accidentally bitten by a shark, you would have a greater than 80% chance of survival. The unlucky victims die from blood loss from a large wound or severed artery. And they can consider themselves very unlucky; the chances of being killed by a coconut are fifty times greater, and there is more likelihood of dying from a lightning strike, which claims 1000 lives per year worldwide. In fact, there is a far greater probability of dying from eating

seafood than from becoming it, from driving home from the restaurant (1.2 million road accident deaths per annum) and given that eight million people of starvation annually, there is an even greater chance of dying from not eating at all.

To put fins in soup bowls and medicine cabinets, man will go to great lengths. Longlining is the preferred method of capture, with lines up to 100 kilometres long carrying 16,000 hooks just below the surface. That's long enough to go from the boat to outer space. The hooks are baited with fish meat and sometimes illegal dolphin. Fishermen claim that they are fishing for pelagic fish, such as tuna, barracuda, and dorado, but one long line recovered by marine biologist and documentary maker Rob Stewart that had hooked 160 sharks, only revealed five sailfish, four dorado, and a solitary tuna. Turtles, dolphins, and seabirds are also drawn to the lethal bait. Once caught, the shark's fins are hacked off and the live shark is thrown overboard, there is little market for the rest of its meat and its carcass would take up valuable storage space best kept for more fins or tuna. Bleeding, wounded, and with no means of propulsion or direction, the shark sinks to the depths of the ocean and dies a slow death. But as its fins feed a multi-billion dollar black market industry with Chinese and Taiwanese mafia governance, legislators in developing nations prefer the short-term benefits of some fresh greenbacks to the sustainability of the marine environment and potentially life as we know it.

And it is not just impoverished fishermen in banana republics that are cashing in. Although finning is technically illegal in Europe, Spain, France, and the UK are among the world's leading suppliers of sharkfins. The EU provides up to one-third of the Asian market's supplies as finning is in fact legalised. EU legislation states that fins must make up an arbitrary 5% of their total shark catch. Fins can be removed onboard for storage or packaging, and scientific calculations show that fins make up only two percent of total shark bodyweight (the percentage used in the US), thus leaving room for almost two out of every three sharks finned to be thrown back (alive up to 88% of the time). The ruling is also difficult to enforce as fins and carcass do not have to be landed in the same port. There was even a proposal approved by the European Union fisheries committee in 2006 to increase this figure to 6.5%, unsurprisingly written by an MEP from Spain, the country responsible for providing nearly one-third of the Hong Kong fin market's intake. According to Customs statistics from Hong Kong, China, and Singapore, between 1997 and 2002 Spain exported an annual average of one million kilograms of sharkfins to these three countries.

If this wholesale slaughter continues unabated, we will succeed in all but wiping out the oldest creatures on the planet, the guardians of the seas that provide much of the planet

with food and ultimately the air that we all breathe. Are the ancient sharks, which have existed since there were only two lifeless landmasses, which have survived through five major extinctions that wiped most life from the planet, going to be pushed over the edge and into the dark oblivion forever? We, as a species and if we care about the future of the planet, cannot let this happen.

In the hour you spent reading your e-mails today, more than 11000 sharks were killed.

What can you do?

Lobby for an end to sharkfinning.

Stop eating fish caught by longliners, the main technique for catching sharks. The United Nations Food and Agriculture Organization (FAO) reports that 40,000 sea turtles are killed annually in the global longline fisheries which also kills hundreds of thousands of seabirds. In Europe that means tuna.

Look at the websites of the following organisations that are trying to help – they need members and money:

[www.sharklife.co.za](http://www.sharklife.co.za)

[www.wildaid.org](http://www.wildaid.org)

[www.mcsuk.org](http://www.mcsuk.org) (marine conservation society)

[www.sharktrust.org](http://www.sharktrust.org)

[www.seashepherd.org](http://www.seashepherd.org)

