

Troubled waters

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Smashed together. Skinned. Swim bladders protruding, broken jaws, bulging eyes. Thousands of fish compressed in a gigantic net are brought onboard after hours of trawling the seafloor, breaking all forms of life that may have taken hundreds or thousands of years to grow. This huge mass of suffocating, dismantled fish is then swallowed down the well towards a conveyor belt. On deck, a few left over gaping fish are trodden on, kicked aside or thrown overboard as waste.

This could be a vision from Dante's *Inferno* or a Bosch painting, but this is what happens every day at sea on industrial bottom trawl fishing boats.

When seen for the first time, the scene is hard to believe, heart wrecking, simply revolting. Dozens of species are caught but only a few are of commercial interest. The ones that are not tasty enough or too bony by market standards are thrown back in the water, dying or already dead. Those of commercial interest are often too damaged to be presented whole to customers so they are filleted.

This vision of hell is not limited to one particular fishery, like the deep-sea trawling industry. It is widespread. In 2014, Greenpeace exposed the behavior of tropical tuna fisheries using fishing aggregating devices (so called "FADs").¹ Their video unveiled a kilometer-long net that traps not only an entire school of tuna but many other species: mako, silky, and whale sharks, sea turtles, marlin and swordfish, dolphinfish. All these unwanted species are separated from tuna and left dying on deck. Once the interesting fish are put into brine, the others are disposed of like garbage. In technical terms, they're "bycatch", and soon become "discards".

This is reminiscent of what Charles Patterson described in his book *Eternal Treblinka* quoting Upton Sinclair's public outcry when faced with the brutality of slaughterhouses.² In 1906, his book described the unbearable reality of mass killings.³ As German philosopher Theodor W. Adorno wrote it "*Auschwitz begins wherever someone looks at a slaughterhouse and thinks: they're only animals*". Did Sinclair's descriptions led to a global movement of rejection of what it took to have sausages for breakfast daily? While the young writer was aiming for "*the public's heart*", all his precious testimony did was to "*hit it in the stomach*", to his despair...⁴

Has our empathy evolved for the condition of animals? Every year, well over 50 billion terrestrial animals are killed for human consumption,⁵ often in intolerable conditions. If we fail to show interest, let alone compassion for mammals, our chance to feel for fish is grim.

¹ Greenpeace (2014) Greenpeace shocking undercover video: dirty tuna fishing. Available at: www.youtube.com/watch?v=JgwL0ohvXA.

² Patterson (2002) *Eternal Treblinka: our treatment of the animals and the Holocaust*. Lantern Books, New York, NY (USA). 312 p.

³ Sinclair (1906) *The jungle*. Doubleday, Jabber & Company, Chicago, IL (USA). 475 p.

⁴ Sinclair (1962) *The autobiography of Upton Sinclair*. Harcourt, Brace & World, New York, NY (USA). 342 p.

⁵ FAO (2008) *FAOSTAT*. Food and Agriculture Organization of the United Nations, FAO, Rome (Italy). Available at: <http://faostat.fao.org/>.

As a result, instead of incorporating higher environmental, well-being and quality standards for its fishing practices, Europe is now quickly endorsing the unthinkable: “pulse fishing”, i.e. the latest, most refined technological development consisting in electrocuting fish before collecting them.⁶ It is argued that this fishing technique is more efficient and less fuel intensive than bottom trawling. At what price? The electric current which is sent through electrodes on a frame that trawls the seafloor convulses marine organisms of all kinds. Animals with a backbone often have their spine broken. Others, knocked out for the best, burnt and dead for the worst, are forced out of the sediment where they get collected by the trawl net.

What’s wrong with our fishing industry?

In all instances — bottom trawling, tuna purse-seining, pulse fishing, ... — the problem is the *scale* of the industry. “*We have declared war on fish*” summarized Professor Daniel Pauly from the University of British Columbia. We have applied military technology to chase fish (GPS, sonars, radars etc.) and have won the war a long time ago already. Our technological capacities have proven to be no match for the inherent biological vulnerability of marine life. The productivity objectives set forth by demanding business plans have led to the great demise of the last and biggest wild biomass on Earth. The clock is ticking: in 30 minutes, the net must be cleaned up, sorted out and ready to be redeployed. No time to care about that gaping shark or injured turtle. So we become indifferent and accept that these are casualties and that there is no way around it.

Fish have become a commodity and our appetite made us lose sight that fish are a fragile resource. Once depicted as bountiful,⁷ the ocean is now emptying: we have been losing 1.2 million tonnes of wild fish catch every year since 1996.⁸ As a result, in 2016, the Food and Agriculture Organization of the United Nations published the following alarming figures: almost a third of all fish stocks are overexploited; another half is fully exploited and could not stand any more pressure.⁹ One quarter of the global fish catch is reduced into fishmeal and fish oil to feed farmed salmon, pigs and poultry.¹⁰

Not only marine life and environments get abused and brutalized, so do humans. Numerous stories of slavery¹¹ and unethical practices¹² in the fishing industry have been revealed by investigative journalists lately.

⁶ Monbiot (2015) We should be outraged by Europe slaughtering sea life in the name of 'science'. The Guardian. Available at: www.theguardian.com/environment/georgemonbiot/2015/feb/09/we-should-be-outraged-by-europe-slaughtering-sea-life-in-the-name-of-science.

⁷ Huxley (1885) Inaugural address. pp. 80-90 *In*. Fisheries Exhibition Literature Scientific Memoirs 5

⁸ Pauly (2013) Does catch reflect abundance? Yes, it is a crucial signal. *Nature* 494(7437): 303-306.

⁹ FAO (2016) The state of world fisheries and aquaculture - Contributing to food security and nutrition for all. Food and Agriculture Organization of the United Nations (FAO), Rome (Italy). x + 190 p.

¹⁰ Cashion *et al.* (in review) Global fishmeal production over the last 60 years: why are we grinding up food-grade fish?

¹¹ Hodal *et al.* (2014) Revealed: Asian slave labour producing prawns for supermarkets in US, UK. The Guardian, edition of June 10 2014.

¹² Wickens (2016) How vital fish stocks in Africa are being stolen from human mouths to feed pigs and chickens on Western factory farms. The Independent, edition of September 19, 2016.

The bottom line is that it is not possible to destroy nature and exploit it at industrial scale without taking a hit. Not only a moral hit for human nature but a serious blow to the long-term productivity of ecosystems and the diversity of species.

For decades, governments have funded destructive practices with public money. For fisheries, this shortsightedness has resulted in the destruction of coastal communities, the erosion of biodiversity and marine habitats, and in the overexploitation of most fish stocks. We need to reverse this trend, and this can only be achieved by redirecting public funds towards more virtuous practices and the restructuring of coastal communities. By doing so, more jobs would be created and nature's surplus could be harvested more respectfully and rationally. Fish would still be killed, of course, but the ocean would not have to be bulldozed to dust every time we go fishing.

Empathy is *the* solution

In a remarkable landmark book,¹³ Simon Baron-Cohen explains how empathy has been taken for granted and largely overlooked although it is “*one of the most valuable resources in our world*”. Empathy is effective in resolving all conflicts but unlike the arms industry that costs trillions of dollars, this “*universal solvent*” which dissolves any problem, is free.”

¹³ Baron-Cohen (2011) *Zero degrees of empathy: a new theory of human cruelty*. Allen Lane. 190 p.