

DSCC policy paper

The destructive power of deep-sea bottom trawling on the high seas

During the past several decades, it has become possible to plow up deep-sea ecosystems that have existed for millennia, if not longer. Today, as a result, well-capitalized fleets from a handful of wealthier nations' are destroying some of the planet's last, most ecologically rich frontiers in search of commercial fish and crustacean species.

Until relatively recently, fishing the deep sea's rugged floors and canyons was impossible. Advances in bottom trawl technology, however, have put the unreachable within reach. More powerful engines, bigger nets, more precise mapping, more advanced navigational and fish-finding electronics have enabled fishing vessels to drag fishing gear across the ocean bottom as much as two kilometers (1.2 miles) deep. Bottom trawling is, in fact, now the preferred method for fishing the ocean bottom on the high seas, accounting for approximately 80 percent of the total high seas bottom fisheries catch in 2001.

Bottom trawl net on winch. New Zealand 1990.



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Large-scale deep-sea trawling requires heavy equipment. Today's trawl fleets drag huge nets armed with multi-ton steel plates and rollers across the seabed, plowing up and pulverizing all in their path in order to capture one or a handful of target commercial species. The mouth of the trawl net is held open by two steel plate doors that help to keep the net on the seafloor. One company markets what it calls Canyonbusters, trawl doors that weigh up to five tons each and undoubtedly live up to their name. To protect the net from snagging on rugged seafloors, heavy chafing gear is attached to the bottom of the trawl net. A heavy cable is then strung through steel balls or rubber bobbins – known as roller gear or rockhoppers – that can measure a meter or more in diameter.

Fragile deep-water ecosystems stand no chance against these ruthlessly effective underwater bulldozers. Ancient coral, sponges and other deep-sea structures are not merely damaged – they are obliterated in a manner akin to clear-cutting a rainforest. Large quantities of incidentally caught species – bycatch – are captured. According to the United Nations Environment Programme, trawling off the Aleutian Islands in Alaska between 1990 and 2002 produced over 2 million kilograms (4.4 million pounds) of coral and sponge bycatch. After heavy trawling, the surfaces of seamounts – underwater mountain peaks often covered in coral and attractive to commercially valuable fish species – are reduced to mostly sand and bare rock or coral rubble. If the deep sea's very slow-growing life will ever regenerate in these environments, it may take centuries or millennia.

To worsen matters,

the deep sea's remarkable array of coral, sponge, fish, crustacean and other species are, to an unusually high degree, undiscovered and endemic (found in certain areas and nowhere else). The risk of extinguishing whole species never before seen, therefore, is very high each time a bottom trawler ravages the surface of a seamount.

Studies have already documented enormous impacts. Considerable damage to deep-water coral communities has been recorded off both coasts of North America, off Europe from Scandinavia to northern Spain, and on seamounts near Australia and New Zealand. An estimated one-third to one-half of the deep-water reefs in Norwegian waters, for example, have been damaged or destroyed by trawling that left in its wake giant trawl scars up to four kilometers (2.5 miles) long.

Though high seas bottom trawl fishing has already had a devastating impact, the use of bottom trawls on the high seas is still only in its early stages. At present, it is estimated that out of 3.1 million fishing vessels in

operation worldwide, only 100-200 at most are bottom trawling the high seas on a full-time, year-round basis. Counting vessels that bottom trawl fish on the high seas on a part-time basis, no more than several hundred vessels are likely to be engaged in this activity on an annual basis. In 2001, the world's high seas bottom trawl fleet caught approximately 170,000 – 215,000 metric tons of fish. This represents a tiny fraction – a mere 0.2 - 0.25 percent – of the 84 million tons of fish caught worldwide that year. Most of the high seas catch is sold in E.U., U.S. and Japanese markets, making international bottom trawl fisheries virtual non-contributors to global food security.

Nor is high seas bottom trawling yet a strong economic force in the global fisheries market. The overall annual value of high seas bottom trawl fisheries is estimated to be approximately \$300-\$400 million USD. At most, this equals 0.5 percent of the estimated \$75 billion value of the global marine fish catch in 2001 – even less when measured against the approximately \$135 billion value of total fisheries production (marine, freshwater and aquaculture) that same year.

By any measure, high seas bottom trawl fishing is causing ecological destruction that is grossly disproportionate to its very limited economic contribution. Nevertheless, some fishing nations are subsidizing the construction and/or operational costs of their high seas bottom trawl fleets. Having dug themselves into a hole through unsustainable fishing practices, some of these nations may believe that expanding deep-sea fisheries on the high seas will alleviate overfishing within their Economic Exclusion Zones (EEZs) and create new opportunities for their fleets.

Unless the United Nations General Assembly (UNGA)

takes urgent action, the situation can only be expected to worsen in the years ahead. Deep-sea fish stocks within EEZs will either continue to be depleted or become less accessible under more restrictive fisheries management regulations. Demand for fish products is rising and will continue to do so. Any or all of these developments would provide incentives for well-capitalized deep-water vessels to push out into the high seas and extend the destructive scope of bottom trawl fishing. Indeed, the fleets of some of the world's more developed nations, such as Spain, Russia, and New Zealand, are actively engaged in exploratory deep-sea fishing on the high seas in the North and South Atlantic, the South Pacific, and the Southern Indian Ocean.

To protect deep-sea biodiversity on the high seas from continued indiscriminate destruction, the Deep Sea Conservation Coalition is calling on the UNGA to adopt an immediate moratorium on deep-sea bottom trawl fishing on the high seas until legally binding regimes for the effective conservation and management of fisheries and the protection of biodiversity on the high seas can be developed, implemented and enforced by the global community.

FOOTNOTE

¹ Eleven nations – Denmark/Faroe Islands, Estonia, Iceland, Japan, Latvia, Lithuania, New Zealand, Norway, Portugal, Russia and Spain – took approximately 95 percent of the reported high seas bottom trawl catch in 2001. E.U. countries (including the newly admitted Baltic states) were responsible for approximately 60 percent of the total. Spain, the most aggressive bottom trawl nation, accounts for approximately two-thirds of the European Union catch and 40 percent of the global high seas bottom trawl catch in 2001.

The Deep Sea Conservation Coalition, an alliance of over 30 international organisations, representing millions of people in countries around the world, is calling for a moratorium on high seas bottom trawling. For further information about the Coalition visit www.savethehighseas.org