



Deep-Sea Trawlers Threaten Marine Life

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Scientists say popularity of orange roughy could lead to their depletion

"This is a species that grows so slowly that it may not reach sexual maturity until it's 34 years old, and may live to be 150 years old," she explains. "These fish tend to be attracted to things like sea mounts. It's a good strategy if you live in a big, open, dark area to aggregate around a mountain or some sort of structure, so you can find mates and find food. But it also makes it a lot easier for people to catch you."

Heppell was among several concerned researchers who spoke recently at the annual meeting of the [American Association for the Advancement of Science](#) in San Francisco.

The sea mounts she mentioned are extinct volcanoes on the ocean floor. There may be as many as 100,000 large sea mounts in the world's oceans, and perhaps 10 times as many smaller ones.

Scientists say deep sea fishing is threatening ocean habitats, destroying coral formations that could deepen our understanding of global warming, and possibly wiping out entire species ... all to add another fish to the menu in wealthy countries. And slow-growing fish populations take decades to recover.

In the deep ocean swims a fish that's part of a family known as slimeheads, but that's not a very appealing name. So in restaurants and fish markets from London to Sydney, it's called orange roughy. It's a mild-tasting fish that has become especially popular in the United States. It is also one of oldest fish in the sea, says Selina Heppell of Oregon State University.



VOA Photo - Art Chimes

In recent decades, the commercial fishing industry has been scooping up orange roughly from the tops of these undersea mountains. Matthew Gianni of the [Deep Sea Conservation Coalition](#) in Amsterdam says the trawlers are getting a lot more than century-old fish.



VOA Photo - Art Chimes

Matthew Gianni of the Deep Sea Conservation Coalition says fishing trawlers are destroying coral

"And so the trawlers move into these areas and fish the tops of these sea mounts," he said. "And in so doing, they can remove part or all of the coral cover. And once the coral cover is removed, the whole ecosystem essentially collapses."

Gianni says that process could be wiping out species as their habitats are destroyed. The orange roughly may take decades to recover because of its long maturation. But Elliott Norse of the [Marine Conservation Biology Institute](#) in Bellevue, Washington, says there may be other species that may exist only at that one place.



NOAA

Orange roughly may take decades to recover as their habitat is destroyed

"If you wipe the organisms out just once, they will never come back again," Norse warned. "And so we need to act now to avoid irreversible loss of thousands, tens of thousands, hundreds of thousands of deep-sea species."

As the trawlers' nets scrap away the deep sea coral that has built up on the seamounts, they are destroying an ancient store of information, according to Murray Roberts of the [Scottish Association for Marine Science](#). He says that undersea coral contains clues to what ocean temperatures have been in the distant past, which can help scientists improve their understanding of climate change.

"They're also incredible archives of climate change history," Roberts explained, "because the coral skeletons are locking in a chemical signature that helps us understand past seawater temperatures. So we do run the risk also, of not only losing the structure that supports fish and other species, but also a climate archive that we've only just begun to unravel."

Deep sea trawling happens outside the exclusive economic zone of coastal nations. Beyond that zone - 200 nautical miles, or 370 kilometers out from shore - in international waters, or the high seas,

there are relatively few restrictions on fishing, and even less enforcement.

Fishing on the high seas requires expensive equipment, and the catch is usually sold in wealthier countries. But there is no fence at that 200-mile limit, and [University of British Columbia](#) researcher Rashid Sumaila, who is originally from Nigeria, says activities of the deep sea trawlers affect coastal fishers.

"They are, they are because the coast of West Africa is also linked to the high seas," he said. "So what happens? They have some of the species that straddle between the coastal waters and also the high seas. So clearly what happens there impacts on what happens on the coast. ... It's one ecosystem. One ocean, if you like - many oceans, but all linked up."

Scientists and conservation organizations have been campaigning against deep sea trawling, but with limited success. Sumaila says many governments - including Japan, Russia, and Australia - subsidize the deep-sea trawlers, turning what would be a money-losing industry into a profitable one, according to his analysis. The issue has yet to resonate with many mainstream consumers, and even many who "think green" aren't aware of the controversy.



VOA Photo - Art Chimes

Murray Roberts of the Scottish Association for Marine Science says loss of coral means loss of climate temperature information



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Rashid Sumaila of the University of British Columbia says damage caused by fishing trawlers in part of the world affects the entire ocean ecosystem