

Study: Fish stocks face collapse in 50 years

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Ordering a tuna fish salad sandwich at the local deli or going out for sushi could be a thing of the past, according to a scientific study that predicts the world's oceans will be devoid of wild edible seafood in 50 years.

The study, published in the current issue of the journal *Science*, looked at marine ecosystem data from around the world and predicts that commercial seafood and fish species will crash by 2048. The growing depletion of fish stocks the study purports is reducing biodiversity. However, overfishing and consumption of seafood is only part of the worldwide fisheries decline and scientists looked at other factors such as global warming and loss of habitat as disrupting the marine ecosystems.

While the predictions are dire, the study concludes the declines in biodiversity can be reversed.

"The fishermen on Cape Cod have been calling for a major overhaul of the way fish stocks are managed for 10 years," said Peter Baker, of the Cape Cod Commercial Hook Fishermen's Association. "Just managing species by species has not been working."

In New England waters, the majority of commercially harvested groundfish such as cod, herring, yellowtail flounder and pollock are fished, according to management plans established by the New England Fishery Management Council and National Marine Fisheries Service. The management plans include regulations such as trip limits for fishing vessels, total allowable catch limits, restricting access to certain areas when they can be fished, and specifying which type of fishing technique can be used.

Baker said there is a push toward ecosystem-based management that looks at protecting biodiversity and the sustainability of the fisheries.

For example, fishermen and environmentalists alike are seeking more protection for Atlantic herring.

As a major food source for groundfish, large predator fish such as tuna, bluefish, striped bass and marine mammals and birds, a reduction in the Atlantic herring population could impact all of the other fish that feed on it.

"The first step to ecosystem based management is understanding the predator/prey relationship," said Baker.

Chris Kellogg, deputy executive director for the council, said not all of the findings in the study apply to the fish stocks in New England waters and cited success in protecting areas on Georges Bank and the ongoing efforts to reduce overfishing and rebuild fish stocks to sustainable levels.

"We are very supportive of ecosystem approaches to management," said Steve Murawski, chief scientist for the National Marine Fisheries Service, and mentioned the management plans in the United States do incorporate many of the principles promoted in the study, such as habitat protection and area closures to fisheries. "This is the way we want to operate."

Murawski agreed with the study's focus on the importance of the diversity of species in the ecosystem but is skeptical about the projections of a worldwide collapse of fisheries in 50 years.

Parts of the study are problematic, Murawski said because fisheries management is different in every country and region.

"Under the Magnuson-Stevens Act we are obligated to end overfishing and rebuild stocks," said Murawski. The act provides for the conservation of fisheries.

In many parts of the world and on the high seas, there is little or nonexistent regulation of commercial fishing and habitat protection.

While the prediction of the collapse of fisheries worldwide is being debated, Baker believes the benefit from the study has been the awareness generated from its publication.

"To the extent it gets people concentrating on the ocean is a good thing," said Baker.