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Lobsters Find Utopia Where Biologists See Trouble



Jim Young/Reuters

TOO MUCH OF A GOOD THING Researchers are calling for steps to restore diversity in the Gulf of Maine, and with it the economic diversity of coastal towns like Kennebunkport.

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For lobstermen working the Gulf of Maine, this is a golden age.

Maine lobsters, prized for their succulence and briny sweetness, are so abundant, and so lucrative, that they support fishing communities up and down the coast.

And that is just the problem, says Robert S. Steneck, a marine biologist at the University of Maine.

In a paper in the current issue of *Conservation Biology*, he and a team of researchers say the lobstermen, their communities and the state economy are caught in “a gilded trap,” in which short-term profit outweighs long-term social and environmental risks.

Where once a number of food species thrived in the gulf, lobsters now provide 80 percent of Maine's seafood income. Inflation-adjusted revenue from lobstering has quadrupled since 1985, the scientists write.

In an interview, Dr. Steneck said the coast had grown so dependent on lobster abundance that if anything damages the species — as has happened in recent years in nearby waters — “we are stuffed.”

The researchers call for new steps to restore diversity in the gulf, and with it the economic diversity of coastal communities — even if the steps reduce lobster catches somewhat. But in a gilded trap, they write, “large financial gain creates a strong reinforcing feedback that deepens the trap.”

According to the state's Department of Marine Resources, Maine lobstermen landed almost 94.7 million pounds of lobsters in 2010, worth about \$313 million, up from 20.1 million pounds in 1985. (Mandatory reporting requirements have been in effect only since 2004; that year, the haul was 71.6 million pounds.)

Only a few decades ago, Dr. Steneck said, the Maine fishery included cod, hake, haddock, halibut and swordfish, many of them lobster predators. Intense fishing has just about eliminated most of them. Meanwhile, baited traps provide lobsters with a steady food supply.

That has created an artificial ecosystem in which lobsters are “hyperdense.” Dr. Steneck said this kind of single-species crowding can be disastrous in the event of outbreaks like the parasite infestations and shell disease that severely reduced lobster yields in southern New England waters.

“Those things happened in an area that is more economically diverse than most of the coastline of the Gulf of Maine,” Dr. Steneck said. He called the situation in Maine “the equivalent of putting all your investments in a single stock.”

David Cousens, president of the Maine Lobstermen's Association, said in an interview that the abundance of lobsters resulted from “an unbelievably strong conservation ethic” among lobstermen, who on the whole adhere scrupulously to regulations like those requiring that juvenile lobsters and egg-bearing females be released from traps. Others who study the situation agree.

Mr. Cousens, a lobsterman in South Thomaston, dismisses comparisons with lobster crashes farther south. “It's a totally different thing,” he said, noting that Maine waters are colder, richer in oxygen and less plagued by pollution.

Still, he agreed that “if we got disease in the lobster fishery or we had a major glitch, there would be a lot of people impacted.”

“Everyone is relying on lobsters,” he said.

In their paper, the researchers say a crash might so alter the gulf ecology that it could lead to years or even decades of low lobster yields. And that could end up changing the rugged face of the Maine coastline, said Charles S. Colgan, an economist at the Muskie School of Public Service at the University of Southern Maine, who was not involved in the new study.

“The pressure for development of the shoreline for other than fishing-related purposes is huge,” he said. “High-amenity real estate, which is waterfront, has its own demand.”

If lobstering falters, even briefly, he said, “this working waterfront issue would be a critical problem.”

He added, “Bob is right to remind people that simply saying, ‘We’ll just keep the lobster industry the way it is’ is a dangerous approach.”

Mr. Colgan said diners might not notice if Maine suddenly stopped producing so many lobsters. “There is not much difference between a Prince Edward Island lobster and a Maine lobster in your lobster roll,” he said, adding that he suspects about half the “Maine lobster” sold in the world comes from somewhere else.

“But in communities along the coast it would be huge,” he said.

Dr. Steneck said that increasing biodiversity by encouraging stocks of groundfish like cod might lead to reduction in lobster abundance. “If you are bringing cod back to this ecosystem,” he said, “that’s like bringing wolves into your flock.”

But Mr. Cousens said such efforts had been unsuccessful anyway, and added: “The whole ecology of the gulf has changed. I don’t know if that’s a good thing or a bad thing.”

Robin Alden, executive director of the Penobscot East Resource Center, which aims to support Maine’s fishing communities, says that whatever the answers, the questions are timely and important.

“I don’t think there’s a lobsterman on the coast who isn’t concerned about this rapid expansion of catch,” she said. “It’s a little spooky.”

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