

New England lobster traps are nabbing dinner, data

March 23 2009, By JAY LINDSAY , Associated Press Writer

(AP) -- Skip Ryan has worked the same channel into Boston Harbor for 50 years, setting and hauling his lobster traps so often that he is certain of one thing.

"You just cannot figure these animals out," Ryan says. "They're not predictable."

To help science try to solve that riddle and others, Ryan and several other lobstermen have allowed the [National Oceanic Atmospheric Administration](#) to tag their traps with devices that measure temperature and currents.

The project is known as eMOLT - short for Environmental Monitors on [Lobster Traps](#) and a play on the molting lobsters do when they shed their shells to grow. It has collected several years of data that are being prepped for use in an ambitious project linking ocean monitoring systems nationwide. The national project, called the Integrated Ocean Observing Systems, received \$27.5 million more in funding from Congress earlier this month.

The eMOLT project's leader, NOAA oceanographer Jim Manning, says the readings could help foresee the strength of toxic red tides, determine prime spots for tidal [power turbines](#) and spot any climate change consequences.

Lobstermen hope the project can boost business by linking expected

[ocean conditions](#) to their catch.

"If you know you've got a couple of bad years coming, you're not going to buy a new boat," said Jason Day, a Vinalhaven, Maine, lobsterman.

Manning first approached lobstermen in the mid-1990s after a stint on the midnight watch of a federal research vessel. While aboard, he saw [lobster](#) boats plying the water hundreds of miles offshore and came to realize each of the several million traps in the water could be used to gather valuable data.

He found New England lobsterman eager to help.

About 60 lobstermen with about 80 [temperature probes](#) among them have provided data since 2000 at a bargain price. The lobster trap temperature probes cost \$150 each and collect information all year. More sophisticated data-gathering moorings cost \$100,000 a year, and research boats cost about \$12,000 a day for periodic sampling, Manning said.

The lobstermen, who aren't paid for the data-gathering, are asked to attach the probes at the start of the year, then turn them in at the end. Manning downloads the information and feeds it into the growing database.

Water temperature can tell a lot about the lobster catch because the animals tend to crawl around more - and find their way into traps - when the temperature is warmer or changes quickly.

The project also measures the currents that sometimes carry the eggs and larvae that lobsters release in midsummer to prime nursery grounds. If, for instance, climate change causes more Canadian ice to melt, more of that lighter fresh water could flow into the Gulf of Maine and alter

currents.

Besides the devices attached to traps, the project tracks currents with floating "drifter" devices. The floating probes carry a GPS chip, are tossed into the sea and are collected later by lobstermen.

It will take years for data to reveal meaningful trends on complex issues such as climate change, Manning said. The temperature readings could also help gauge the intensity of regular toxic "red tide" algae blooms, which grow faster in certain temperatures and can devastate the shellfishing industry.

Manning said he has already gained some new insights, including the drastic effect a single tide can have on temperature, changing it 10 to 15 degrees in some spots. High winds can also swing temperatures in ways researchers hadn't fully recognized.

Ryan, the Boston lobsterman, is hoping the results will help him figure out when and where the temperature is warmer, so he can make his 800 traps more productive. He's also hopeful the research can aid the industry when he's no longer part of it.

"I've always thought that I'd like to leave the industry when I retire as good as it was when I started, or even better," Ryan said.

On the Net:

eMOLT: <http://www.nefsc.noaa.gov/epd/ocean/MainPage/emolt.html>

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