

Earth Day 50 is Not Just for Earth - it's for Fish

By John K. Bullard

As we prepare to celebrate the 50th anniversary of Earth Day, our thoughts are focused on Coronavirus. This pandemic unlike other natural disasters which occur in one place at one time, threatens everyone on the planet for an unknown duration. There is no place to hide. It is an unprecedented event with the potential to kill millions and we are scrambling to react. We are relying on scientists to describe the problem, tell us what to do and find the cure. We are shocked that our planet, our only home could be so unhealthy for us.

And yet 50 years ago that was the message of the first Earth Day. We are making the planet unhealthy for us. And for other species. And here in the nation's most productive fishing port on a planet that is two thirds covered by water, the changing climate is making the marine environment unhealthy for species our fishermen depend on. And after the Coronavirus has passed through and done its damage and life has returned to what we think is "normal," we will still face this other unprecedented crisis - the climate crisis.

People have gone to sea from our shores since before the Revolution, and native Americans for thousands of years before that. Our people are keen observers of the ocean environment. They know the ocean is changing. And they know that many of those changes are harmful to our environment, our economy and our way of life – all of which are inextricably linked.

When I became the Regional Administrator for NOAA Fisheries in 2012, I visited with fishermen from Cape Hatteras to Maine. At a meeting in Ellsworth in eastern Maine, a fisherman told me that he had noticed that the water temperature had increased more than 12 degrees in the last 10 years. I found that hard to believe, but later found out that the Gulf of Maine has warmed up more than almost any other body of water in the world, and that 2012 was an especially hot year for the Gulf.

What does that mean? Lobsters seek the cooler waters that are comfortable to them. They are moving north, east and offshore. For us, south of Cape Cod, there are virtually no lobsters left near shore because they don't like temperatures higher than 70 degrees. The group that manages lobsters has determined that we could reduce the allowable catch to zero south of the Cape and the population still wouldn't comeback. Zero! They are being replaced by Jonah crab. And in Maine, where the lobster is so important it is on the license plate and is over 80% of marine related revenue, landings are moving east and into Canada, where U.S. fishermen will wave good-bye.

Groundfish are a similar story. Cod is a cold-water fish and we are at the southern edge of its range. Along with chronic overfishing, the warming of the waters is making the marine environment an unfriendly place for cod to live. We have to import cod to Cape Cod.

Yellowtail and winter flounder, which used to be mainstays of New Bedford's groundfish fleet, are in trouble in large part because they aren't having babies anymore. Scientists have linked warming waters as a one of the causes of this decline.

And what of sea scallops, the species that made New Bedford the top dollar port for the last 19 years in a row? They are a sustainably managed fishery that has existed in great abundance and earned the coveted Marine Stewardship Council certification. But global warming's evil twin, ocean acidification, looms as a possible threat here. The oceans absorb about half of man-made CO₂. That is a good thing in that it prevents the planet from warming even faster. But in so doing the ocean becomes more acidic through a chemical reaction that produces carbonic acid. This is not good for any creature that uses carbon to make a shell because it takes more energy to make the shells in an acidic environment. So scallops, surf clams, ocean quahogs – all harvested in great quantities in New Bedford – as well as very small creatures like copepods and pteropods, which are the base of the food chain are affected. In fact, SMAST and the NOAA Northeast Fisheries Science Center will co-host a forum devoted just to the topic of ocean acidification and the scallop industry on April 30th at SMAST to explore this important topic.

Much of my last year and a half at NOAA was consumed with fighting the potential extinction of the North Atlantic right whale, a species so important to New Bedford that we have a skeleton of one hanging in the lobby of the Whaling Museum. One reason scientists believe that there has been such an increase in deaths over the past several years is that warming waters have caused right whales to migrate north into Canadian waters in search of food. The Canadians were surprised by this and it took them a while to put in place the kind of protections that we had worked with our industries to install. The result was one particularly tragic summer in 2017 in the Gulf of St. Lawrence when we lost 12 whales and another in 2019 when we lost 9. These deaths, too, are a result of a warming ocean.

There are answers on the waterfront as well. Among the “orange fleet” of scallopers that Lars Vinjerud owns is *Viking Power*. This revolutionary vessel with its radical bow achieves significant fuel savings and a more comfortable ride for its crew.

And further to the south is the staging area for offshore wind, where New Bedford shows that fishing and renewable offshore wind can coexist through respectful, continuous communication and a sharing of the ocean that allows both industries the space to operate and thrive.

We are blessed to live near the ocean. There are many things to learn from time at sea. One lesson I have learned is that it is an unforgiving place. As we approach the 50th anniversary of Earth Day, it is a lesson we should keep in mind.

John K. Bullard was the Regional Administrator of NOAA Fisheries from 2012 -2018