

Region Braces For Possible Red Tide Outbreak

by Alan Pollock

CHATHAM — Scientists say the phytoplankton which cause red tide are now present in Cape Cod Bay, and the Cape's first shellfish closures of the season may be imminent.

As of Tuesday afternoon, no new red tide closures were in effect for the waters off Chatham or Harwich. But researchers say *Alexandrium fundyense* cells were found in high concentrations in water samples in Cape Cod Bay, pushed south from Maine by winds and currents. Having already issued shellfish closures as far south as Marshfield, state officials were awaiting test results Tuesday before deciding on any new closures in the bay.

If that happens, officials will then begin watching for the easterly winds that could bring the bloom down the back side of Cape Cod towards Chatham.

Dr. Dennis McGillicuddy, associate scientist at the Woods Hole Oceanographic Institution, said recent surveys of Massachusetts Bay and Cape Cod Bay showed *Alexandrium* cell concentrations "that were just about as bad as they were this time last year."

"It appears we may be on the brink of another large-scale regional event," McGillicuddy said. But as of early this week, there was no evidence that winds and currents had pushed the *Alexandrium* around Provincetown.

"We do not yet have direct measurements of any concentration of cells being transported down the back side of the Cape," he said. But survey crews will begin sampling there this week, McGillicuddy said.

The water quality information collected by Woods Hole Oceanographic Institution is part of an early warning network used by the state's Division of Marine Fisheries, which collects shellfish samples each week for testing. And so far, the sampling stations at the Chatham Fish Pier and Stage Harbor have showed no evidence of red tide.

Mike Hickey, the state's chief shellfish biologist, said *Alexandrium* cells in the water don't absolutely cause shellfish closures. First, he said, the bloom must be transported close to the shore, and conditions must be right for shellfish to take up the toxin. It's still too early to know whether that will happen, Hickey said.

“I don’t disagree with [WHOI researchers], it’s just that nobody really knows,” he said.

Additional shellfish closures in Cape Cod Bay are a distinct possibility, he said, “but whether it’s as big an event as last year, it’s kind of hard to tell,” Hickey said.

But even aside from the cell counts in Cape Cod Bay, there is reason for real concern about an outbreak. New England recently experienced three weeks of easterly winds, culminated by the record-setting rainfall in northeast Massachusetts which flooded many North Shore communities. The influx of fresh water and nutrients from the land could create a condition similar to one last year, when the *Alexandrium* bloom grew with disastrous consequences.

Last year’s bloom began off the coast of Maine and moved rapidly south, helped by a series of northeast storms. Red tide affects clams, mussels, oysters and other shellfish, which feed by filtering water and store the toxins in their stomachs and intestines. While not harmful to the shellfish, the toxins can cause illness or even death in humans. Lobster, crab, shrimp and fin fish are not affected by the phytoplankton. It is also safe to swim in waters which contain *Alexandrium fundyense* cells.

Hickey said any closures around Chatham and Harwich would not happen immediately, since the normal circulation pattern takes Cape Cod Bay water around Provincetown and then east or southeast toward Georges Bank. Only if there are additional easterly winds would the algae reach local waters, he said. But predicting that likelihood is about as accurate as a long-range weather forecast, McGillicuddy said.

“It could come around the corner again, and we’ve got to be prepared for that,” he said.

Few people are eager to ponder the economic effects another red tide outbreak might have on local shellfishermen. Tom Upson of the Chatham Shellfishermen’s Association said he’s been monitoring the red tide situation on the Internet, as have some other shellfishermen. The key, he said, is the weather.

“You hope for southwest winds, you hope for the overcast skies, and you hope it just kicks out to sea,” he said.

Federal assistance for hard-hit shellfishermen was inadequate, despite the fact that the outbreak earned a federal disaster declaration. On Tuesday, Congressman William Delahunt, D-10th District, sent a letter asking other lawmakers to express support for a \$20 million aid package included in the fiscal 2006 Global War on Terror Supplemental Appropriations Bill.

The funds are needed to help fishermen who are still suffering from financial losses from last spring’s outbreak, Delahunt wrote.

“Throughout the region, the effects were widespread and severe. In

Massachusetts alone, the tide shut down over 2,000 commercial shellfishermen and over 25 shellfish aquaculture grants, resulting in an economic impact exceeding \$35 million,” Delahunt wrote.

Several weeks ago, Chatham Selectman Ronald Bergstrom, who is also a commercial shellfisherman, went to Washington to express support for the aid package, which remains stalled in conference committee.

Last year, the Chatham Shellfishermen’s Association reached out to the Lower Cape Outreach Council and the Interfaith Council for the Homeless, which proved to be a very good resource for shellfishermen in need, Upson said. “The group is still there, and so we can kick back into action if necessary,” he said. “Here’s hoping it doesn’t happen.”