

FISH DYING IN N. SHORE WATERS

Scientist: Unusually high temps robbing harbors of oxygen

BY NICHOLAS SPANGLER
nicholas.spangler@newsday.com

The hottest water temperatures in years have depleted oxygen levels in Long Island's North Shore harbors and may have contributed to a recent spate of fish kills, a Stony Brook University marine scientist said.

Christopher Gobler, whose laboratory has monitored surface water quality at 30 Long Island stations from East Hampton to Hempstead for the past decade, said the total number of dead fish — mostly menhaden, also known as bunker — probably numbered in the thousands.

Gobler's instruments showed some North Shore harbor temperatures near 78 degrees last week, "hotter than we've seen during our 10 years of monitoring." Hotter water holds less diluted oxygen, which aquatic animals need to breathe.

A spokesman for the state's Department of Environmental Conservation wrote in emails that, although the agency had received reports of menhaden "mortality events" in Cold Spring Harbor, Manhasset Bay, Eastchester Bay, Hempstead Harbor and Port Jefferson Harbor, such events are not "unusual, surprising or worrying."

Menhaden, an important prey species for a range of wildlife, are particularly vulnerable to low dissolved oxygen, he wrote. Along with high air temperatures, "this summer has seen little rain and no notable wind or storms to stir up the water to oxygenate it," making fish-kills more probable.

"Every summer, concentrations of dissolved oxygen in Long Island Sound waters decline to levels that are unhealthy for fish and other aquatic life," Mark Tedesco, director of the EPA's Long Island Sound Office, wrote in an email. "On average water temperatures have increased over the past few decades, contributing to the problem. EPA is working with its partners, including the states of Connecticut and New York, to continue reduc-



Heather Johnson is executive director of the Oyster Bay conservation group Friends of the Bay.



Dead fish have washed up on the shores of Cold Spring Harbor in recent weeks. ■ Video: newsday.com/ll

ONLY IN NEWSDAY

ing nitrogen pollution to further improve water quality and to mitigate the impacts of climate change on the Sound."

Fish kill spread disturbing

Gobler said the geographic spread of the recent kills was more disturbing than the number of fish killed. "I've never seen anything like that."

His instruments in eight North Shore harbors showed levels as low as zero and as high as 2.97 milligrams of diluted oxygen per liter of water. According to the Environmental Protection Agency, levels below 3 milligrams per liter are

"of concern" and levels below 1 are "usually devoid of life."

In July, Long Island was hotter and drier than usual. The Island was put on state-ordered drought watch, with an average temperature of 77.1 degrees, among the warmest in half a century, and the 1.27 inches of rainfall recorded at Islip was the 11th lowest since 1964, according to the National Weather Service.

Summer water temperatures in Long Island Sound rose by 5 degrees between 2003 and 2020, a rate Gobler said "far exceeds" global averages. Ocean and coastal temperatures along the northeast continental shelf are rising faster than most other marine waters around the

world, according to a 2021 DEC report on climate change in New York State. That report put the increase at .06 degrees per year from 1982 to 2016, rising to four times the warming rate from 2007 to 2016.

Only a year ago, though, a peer-reviewed 2021 study found sustained increased levels of dissolved oxygen in the Sound from 1994 to 2018, attributing much of the improvement to cuts in nitrogen, a pollutant, entering the Sound from wastewater treatment plants.

Those cuts were crucial in combating the effects of warming water temperatures that would have otherwise lowered oxygen levels, but some of the most significant cuts were in



Christopher Gobler is a Stony Brook University marine scientist.

the western Sound, not in the areas near the harbors where the fish kills occurred, Gobler said. "What we're seeing now is super low oxygen levels in these regions where nitrogen levels have not been reduced."

Crabs likely killed, too

Local environmental groups said they'd fielded more calls than usual about fish kills. Manhasset Bay Protection Committee executive director Sarah Deonarine said the kills were regular occurrences but may have been exacerbated this year by very hot weather. Her group also has heard this year of crabs likely killed by a combination of heat and low oxygen, she said.

During one 90-minute span last week, five people called the Oyster Bay conservation group Friends of the Bay with dead fish sightings, said Heather Johnson, the group's executive director. Mitch Kramer, the group's vice president and owner of a marine towing company that takes him across much of the Sound, said he'd seen fish kills before when bluefish chased menhaden into marinas and the trapped fish suffocated, but this year seemed different: "the fish seemed to be dying sporadically in a lot of different areas."

One sighting came from Oyster Bay resident Ann Balderston-Glynn, a video producer who had expected a soothing morning stroll with her coffee Wednesday on Beekman Beach.

Instead, "I started walking along the shoreline and I saw more and more dead fish," she said. She counted 60 to 70 carcasses on the sand. "I've never seen anything like it," she said.