

Stony Brook Lab: Brown Tide Returns to South Shore Bays

Posted by [Beth Young](#) • June 9, 2015



Brown tide is once again returning to South Shore Bays

Researchers at Dr. Chris Gobler’s microalgae laboratory at Stony Brook University have found “an intense and damaging brown tide” across much of Great South Bay and Moriches Bay and in Quantuck Bay, they announced Tuesday.

The laboratory has found brown tide cell densities exceeding 250,000 cells per milliliter in Great South and Moriches bays and cell densities exceeding 200,000 cells per milliliter in Quantuck Bay.

They found densities of 68,000 cells per milliliter in western Shinnecock Bay and densities exceeding 7,300 cells per milliliter in eastern Shinnecock Bay. Densities above 50,000 cells per milliliter can be harmful to clams and other marine life.

Brown tide first appeared along Long Island’s shores 30 years ago — at densities in the Peconic Bays that devastated the ecosystem that supported the Peconic Bay scallop industry, which is still limping to recovery.

While the Peconic Bay has been free of harmful levels of the brown tide alga, *Aureococcus anophagefferens*, for the past 20 years, the algae have continued to resurface year after year in South Shore bays.

“We have learned a lot about brown tide since the first harmful blooms in 1985,” said Dr. Gobler. “We know our south shore bays are the most vulnerable as they are shallow, poorly flushed, and are rich in organic nitrogen. We also know that the recurrence of these blooms has thwarted the recovery of the hard clam fishery on the south shore, despite many years of restoration efforts.”

“There is some good news to the brown tide story. In the Peconics where the nitrogen concentrations are lower, the brown tide only occurred five times and has been absent for two decades,” said Gobler, “This absence has allowed the bay scallop populations to make a partial comeback in this system.”

On the South Shore, the timing of the current brown tide is troubling for hard clam populations, which spawn in June.

Brown tide algae blooms tend to intensify through June and into July, when water temperatures reach the mid-70s. The one exception was a cool June in 2013, which suddenly ended the brown tide bloom in Shinnecock Bay.

Stony Brook University scientists will continue to monitor the South Shore in the weeks ahead.