

BAY SCALLOPS IN THE PECONIC ESTUARY



BACKGROUND

New York's bay scallops are primarily sourced from the Peconic Bays. The bay scallop population in Peconic Estuary historically supported one of the state's commercially important fisheries and provided significant economic revenues to the fishing industry, East End businesses, and related industries. The bay scallop population was decimated from 1985 through 1994 due to repeated brown tide harmful algal blooms. Bay scallop restoration efforts conducted over the past 15 years by Cornell Cooperative Extension and other partners in Peconic Bays are working to jump-start the resource, rehabilitate the adult scallop population, and restore this commercially and recreationally important resource and fishery.

During the summer of 2019, there was a catastrophic die-off of adult bay scallops in Peconic Bays with estimates of more than 90 percent mortality of adult bay scallops throughout the Peconic Bays, except for a few localized areas. This die-off caused a complete collapse of the bay scallop fishery. Officially declared as a fishery disaster, funding towards research was expedited through New York State to determine the cause of the bay scallop die off.

CCMP ACTION

ACTION 35: Monitor results of shellfish restoration efforts, share findings, and encourage creation of shellfish spawner sanctuaries



PROJECT DETAILS

Bay scallop monitoring was conducted in Peconic Bays, along with one reference site in Massachusetts. This project analyzed the spatial/temporal prevalence of disease in Peconic Bay scallop populations and examine the effect of important water quality parameters (temperature, salinity, dissolved oxygen) on scallop health (physiological performance, disease dynamics).

The results of this research and monitoring project will provide important information needed to make recommendations to support the success of future restoration efforts for the bay scallop resource and fishery.



PARTNERS

- Marine Animal Disease Lab at Stony Brook University - SoMAS
- Cornell Cooperative Extension Marine Program
- Cape Cod Cooperative Extension
- Town of East Hampton Shellfish Hatchery
- NYS Department of Environmental Conservation
- Environmental Protection Agency



KEY TAKEAWAYS

- Mass bay scallop die-off events were caused by a parasite that lives in the kidney
- Parasite is exacerbated by warming waters
- Creating diversity in the broodstock, selective breeding is the method used to develop some parasite resilience