DEC ANNOUNCES DETECTION OF PARASITE IN PECONIC BAY SCALLOPS

Bay Scallop parasite considered contributing cause of die-off last year

New York State Department of Environmental Conservation (DEC) Commissioner Basil Seggos today announced the detection of a coccidian parasite in a sample of bay scallops collected from Peconic Bays on eastern Long Island. This is the first reported detection of a coccidian parasite (member of the Apicomplexa) in bay scallops in New York waters that is associated with a large-scale mortality event. The parasite is not harmful to humans and does not pose a public health threat but could significantly affect the bay scallop fishery.

“The discovery of a protozoan parasite in bay scallops from Peconic Bays represents a significant threat to this commercially important fishery,” Commissioner Seggos said. “While the parasite is not a public health concern, DEC is working with the Stony Brook’s Marine Animal Disease Laboratory to investigate environmental factors that promote disease development of the parasite and monitor its geographical extent in bay scallops in Peconic Bays in order to protect and restore this ecologically and economically important resource.”

New York’s bay scallops are primarily located in the waters of Peconic and Gardiners bays in eastern Suffolk County and situated within the five east end towns of Riverhead, Southold, Shelter Island, Southampton, and East Hampton. Bay scallop landings reported in 2017 and 2018 exceeded 108,000 pounds with a dockside value of $1.6 million. 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 Peconics and some areas documented with 100 percent mortality. Although the exact cause of the die-off is unknown, scientists theorize that the mortality event was due to physiological stress during bay scallop spawning which was exacerbated by high summer water temperatures (mid-80s) and low dissolved oxygen. The detection of this parasite in bay scallops from Peconic Bays is also considered a contributing cause of the die-off last year. Juvenile scallops were not impacted by the die-off.

On December 6, 2019, Governor Andrew Cuomo issued a formal letter to the U.S. Commerce Secretary Wilbur Ross requesting a federal fishery disaster declaration for the bay scallop fishery due to the 2019 die-off of the adult bay scallops. DEC is currently working directly with National Oceanic and Atmospheric Administration (NOAA) Fisheries to provide additional information to support the disaster determination.

In addition, as part of the 2020 State of the State, Governor Cuomo proposed the Restore Mother Nature initiative - the nation's most aggressive program for habitat restoration and flood reduction. Restore Mother Nature would support a doubling of New York’s existing artificial reef program and other shellfish restoration initiatives, funded in part by the Governor’s $3 billion environmental bond act proposal and $300 million for the state Environmental Protection Fund.
DEC arranged for disease diagnostic testing of a sample of 32 bay scallops collected from Hay Beach, Shelter Island in Peconic Bays in November 2019 with the Marine Animal Disease Laboratory (MADL) at Stony Brook University. The disease testing detected a coccidian parasite infecting the kidney of both juvenile and adult bay scallops in all samples where kidney tissue was observed. In some of the infected scallops, extensive damage of the renal tubules of the kidney was observed. The extent of the lesions identified in these heavily infected scallops is sufficient to cause mortality. These parasites are not harmful to humans and do not represent a public health concern.

Coccidian parasites are members of the Apicomplexa and are single celled protozoan parasites that typically need, at least for some stages of their life cycle, to live inside host cells. Apicomplexan parasites of bivalve shellfish are typically acquired from the water column during water filtration. Further research is needed to determine the life cycle, rate of infection, transmission, geographical distribution and environmental requirements of the parasite.

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