

## **Collaborative Research on Quahogs in Staples Cove**

In the spring of 2019, the Town of Freeport received a grant from the [Maine Shellfish Restoration and Resilience Project](#) to support a research project recommended by the Shellfish Conservation Commission. Shellfish harvesters, along with the Marine Resource Conservation Officer, Charles Tetreau, have partnered with [Manomet](#) and [Tidal Bay Consulting](#) to study the effects of the winter harvesting closure for quahogs (hard-shell clams). The Shellfish Committee contributed to the siting and experimental design, and thus far, four commercially-licensed harvesters have volunteered their time to this project, in turn for conservation hours that are required to renew their shellfish licenses.

In 2018, the Freeport Shellfish Conservation Commission approved a conservation closure for harvesting quahogs during the winter months of 2018 and 2019, as anecdotal information suggests that digging for soft-shell or hard-shell clams in the winter causes mortality in juvenile quahogs that aren't big enough to legally harvest. Existing research indicates that quahogs are more susceptible to freezing temperatures than its soft-shell counterpart, although until now, no research has been conducted on the direct impact of harvest closures on quahogs. The Town of Brunswick's Marine Resource Commission has enacted winter quahog closures for over five years, and has a healthy population of quahogs. Freeport adopted a similar approach, and this study will help determine whether or not a winter closure, and forgone income for harvesters, is warranted for future years.

The research site is located in Staples Cove, and in order to start with a high enough density of quahogs to determine survival and mortality ratios, harvesters dug quahogs from the surrounding mud flats and transplanted them into the research plots in May 2019 (this required a permit from Maine Department of Marine Resources [DMR]). The project team conducted a baseline survey in July to determine the outcome of the transplant, and in the two plots surveyed, there was 99% survival. An interim survey will be conducted in fall 2019, and then in the winter, several 'experimental' plots will be disturbed (i.e., dug through like they were being harvested), and the remaining 'control' plots will be left as is. In spring of 2020, we will conduct the final survey and analyze the results.

Project results will be posted on this website and presented through the DMR's Shellfish Advisory Council, Maine Shellfish Learning Network, and the Maine Fishermen's Forum.

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