

DAMARISCOTTA RIVER SHELLFISH STUDY 2019

Damariscotta Board of Selectmen's Meeting

September 18, 2019



Students from Darling Marine Center hold quahogs, soft shell clams, oysters, and razor clams.



Map showing all 30 survey sites in upper Damariscotta River.

OVERVIEW

GOALS:

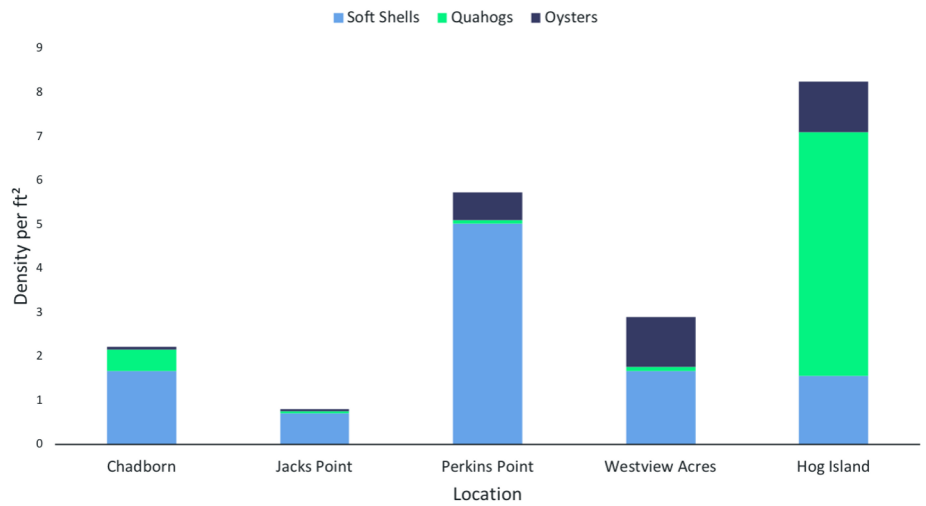
- Establish a baseline of current shellfish populations and historic trends.
- Engage shellfish harvesters and students in better understanding our local resources.

FINDINGS:

- The Damariscotta River is spatially diverse: Shellfish populations vary across sites.
- Harvesters have noticed a decline in soft shell clam abundance and an increase in oyster abundance over time.
- Increased engagement of shellfish harvesters in ecological surveys is needed for multi-year monitoring of shellfish populations.

Shellfish populations vary across the river

Survey areas were selected in collaboration with local harvesters. Selected areas are frequented by shellfish harvesters and represent areas accessible by foot and by boat. Results indicate that total shellfish density (soft shell clams, quahogs, and oysters) is higher at sites accessible only by boat. The abundance of specific species also varies across sites. For example, at Chadborn in the upper river, the average density of quahogs was 0.5 clams/square foot, and on Hog Island, the average density of quahogs was 5.6 clams/square foot.



Density (# individuals/square foot) of three shellfish species for each survey area.



A harvester participates in an interview.

Harvesters have noticed changes over time

Interviews with eight shellfish harvesters who hold licenses from the Towns of Damariscotta and Newcastle revealed that 100% of respondents have noticed changes in shellfish populations over the past 20-30 years. The most-cited changes were declines in soft shell clam abundance and increases in oyster abundance. Many harvesters have shifted their harvest activities as a result.

Jessica Woodall



Looking to the future

The future of Damariscotta and Newcastle's wild shellfishery requires an understanding of past and current conditions, and includes the need for continued study in future years. The participation of local harvesters and community members will be critical to the long-term sustainability of the shellfishery.

For more information and to stay up-to-date on the detailed technical report coming out in December 2019, please contact Dr. Kara Pellowe at kara.pellowe@maine.edu.