

Damariscotta River Estuary Community Science Project: 2019-2023

Community Science Project Timeline



Figure 1: Timeline of community science project activities from 2019-2023. For more information about the project and its history, please visit:

<https://umaine.edu/leslie-lab/research-2/damariscotta-community-science-project/>

Research Sites



Figure 2: Map showing the project’s 3 long-term monitoring sites and soft-shell clam recruitment sites.

Key Takeaways

Soft-Shell Clam Abundance Declined from 2019-2022

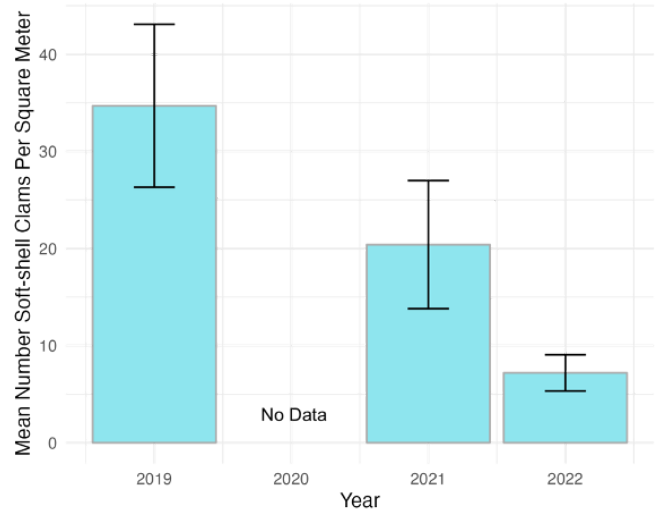


Figure 3: Monitoring data indicate that clam numbers have declined since 2019. Quahog and wild oyster numbers have also decreased.

To learn more & to get involved, contact:

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What Have We Learned?

Summer 2019

- Shellfish populations vary among locations and by tidal height, with greater numbers of shellfish in the upper intertidal zone.
- Soft-shell clam recruitment was highest in the upper intertidal zone.
- Harvesters shared that they have observed an increase in wild oyster abundance and a decrease in soft-shell clams. Many have begun to harvest oysters.



Fall 2020 - Winter 2021

- Shellfish harvesters and others identified changes in the upper estuary, including: 1) Increases in aquaculture, coastal development, tourism, and boating; 2) Growth of the wild oyster fishery; 3) Declines in the soft-shell clam fishery and other commercial fishing; and 4) Diminishing access and navigability in the upper estuary.
- Local knowledge is important for understanding how and why shellfish populations are changing and to guide research.



Summer 2021 and Summer 2022

- Green crab numbers vary, peaking in summer.
- Wild oysters are found at all monitoring sites.
- Shellfish populations vary among locations: Westview has the most quahogs and fewest clams.

Summer 2023

- Oyster spat (i.e., baby oysters) recruit to the intertidal zone in the upper estuary near areas with many oyster farms.
- We did not find oyster spat in Great Salt Bay.
- Adult wild oysters are attached to rock and under rockweed in the upper estuary, south of the Damariscotta-Newcastle bridge.

Plans for Spring and Summer 2024

- *Focus groups:* Early this spring we will host a series of focus groups to identify and share people's knowledge and goals for the future of the estuary.
- *Continued wild oyster research:* We will survey wild oyster populations in the intertidal and subtidal and continue to study oyster spat settlement.

This information can help us:

- Determine the location and timing of conservation activities.
- Guide decisions about license allocation.
- Help identify ways to expand participation in shellfish management and conservation.

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