

Damariscotta Community Science Shellfish 2022 Update

November 2022
Board of Selectmen



Agenda

- Project background recap
- Review 2022 activities
- Report 2022 results
- Discussion
- Questions



Characterize & Quantify Commercial Shellfish Populations



Softshell Clams
(*Mya arenaria*)



Quahogs
(*Mercenaria mercenaria*)



American oysters
(*Crassostrea virginica*)



Monitor Changes in Shellfish Predators



Image source: [Downeast Institute](#)

Milky ribbon worms
(Cerebratulus lacteus)



Green crab
(Carcinus maenas)



Document Harvester Knowledge

3. On average, how often do you harvest each week?

- a. 1-2 days per week
- b. 3-4 days per week
- c. 5-7 days per week

4. What shellfish species do you harvest? (rank 1-5 from most harvested to least)

Species	Rank
Softshell clams	
Quahogs/Hard clams	
Razor clams	
American oysters/Eastern oysters	
European oysters/Belons	
Other: _____	

5. What predators affect shellfish species? (rank 1-3 from greatest effect to least)

Species	Rank
Green crabs	
Milk ribbon worms/tape worms	
Boring snails/Moon snails/Oyster drills	
Other: _____	



Surveying harvesters about species and harvesting changes.

Visiting local fish houses to speak with harvesters.

Image source:
Jeff Roberts



Engaging Students: Summer 2022 Activities



Audrey Hufnagel
High School Intern

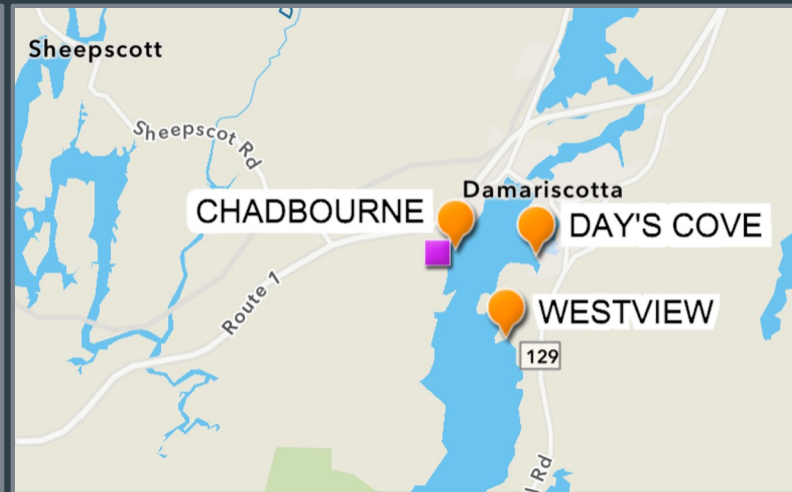
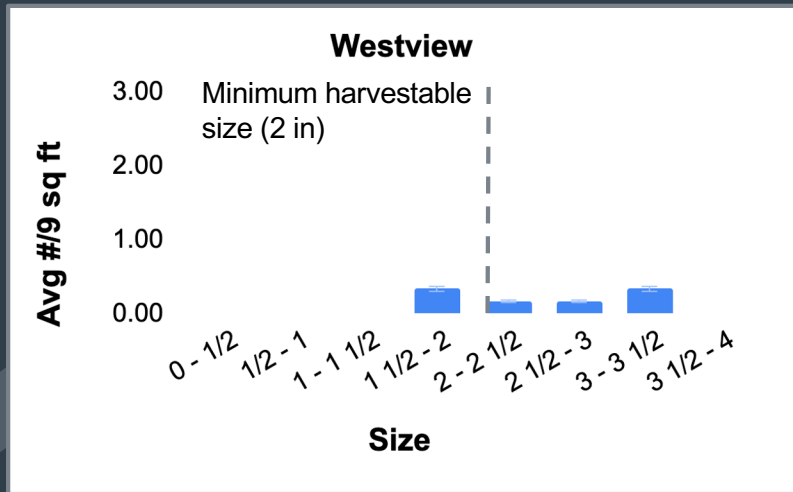
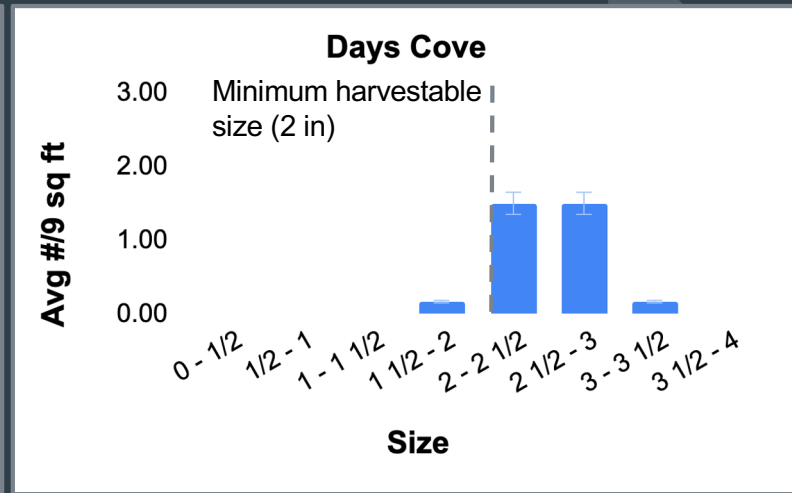
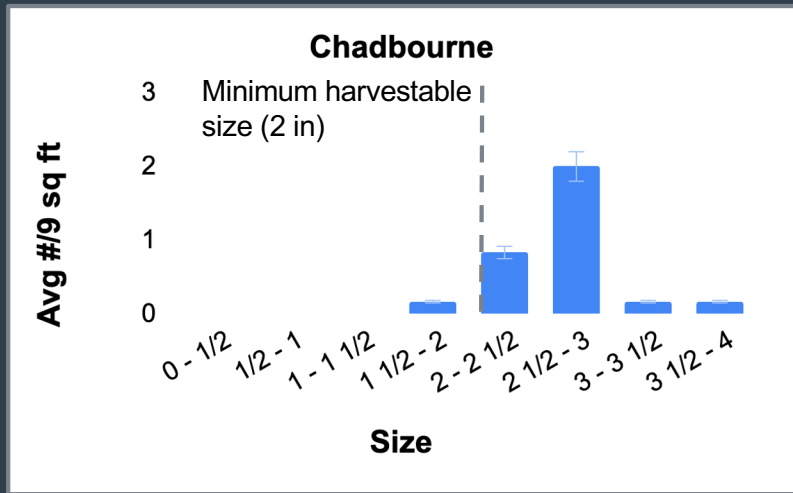
High School Field Days
June, July, August



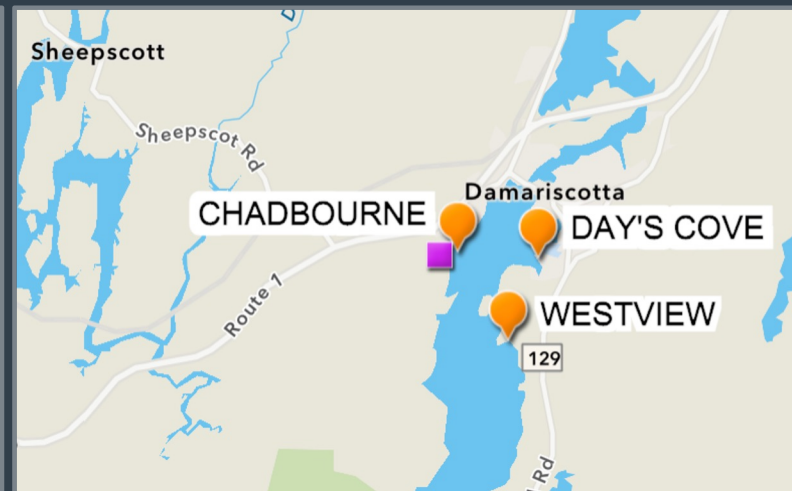
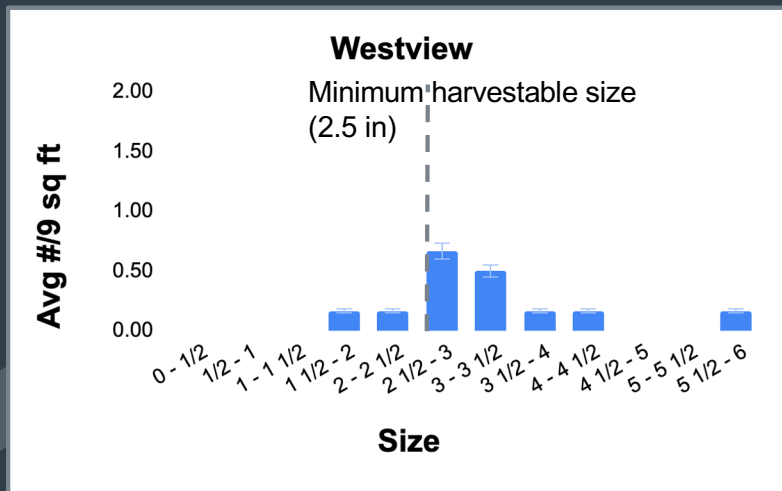
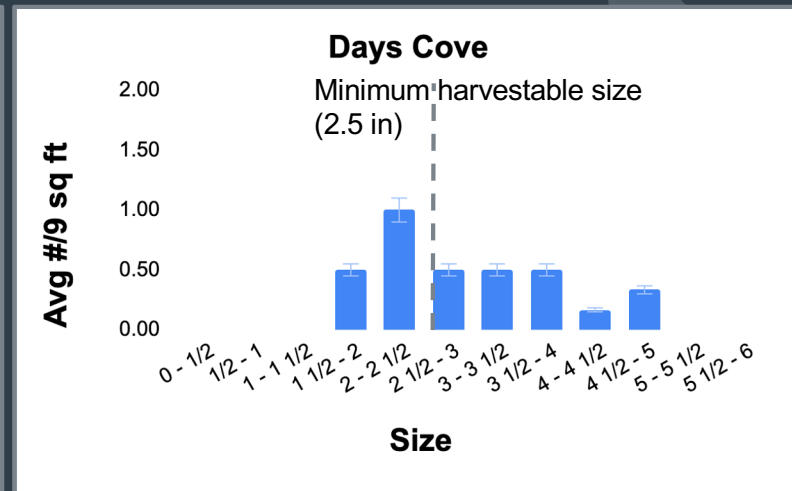
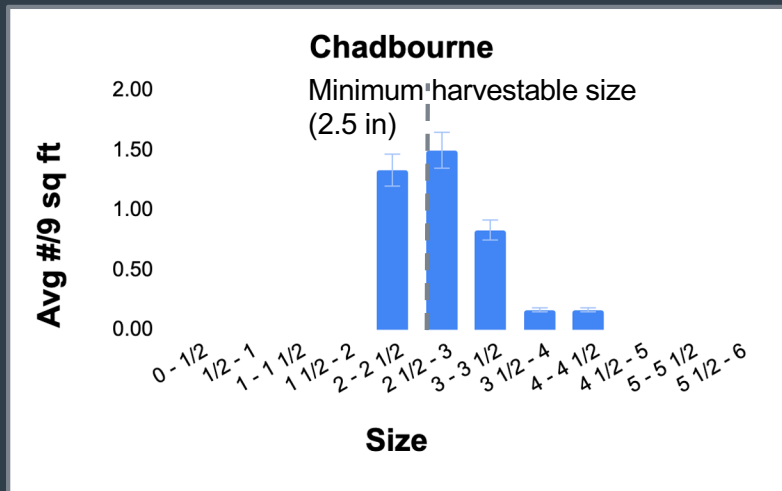
Jakob O'Neal
Undergraduate intern



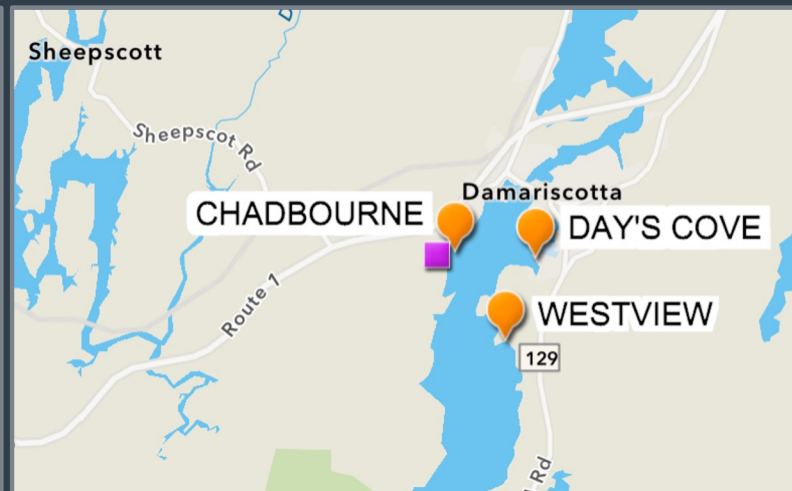
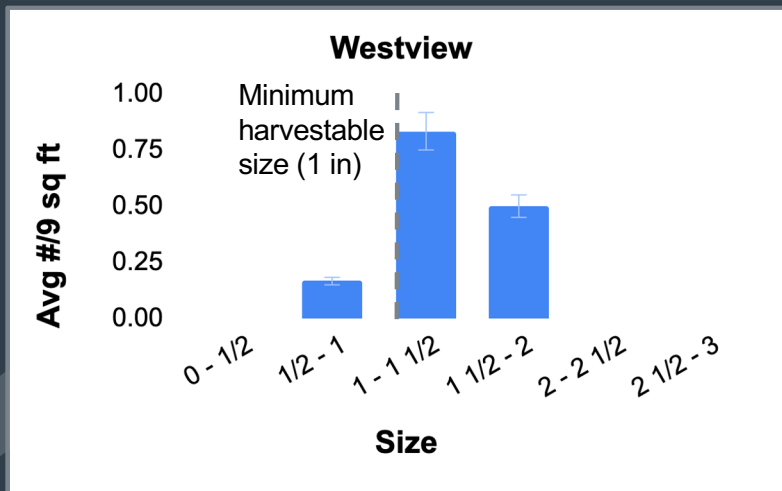
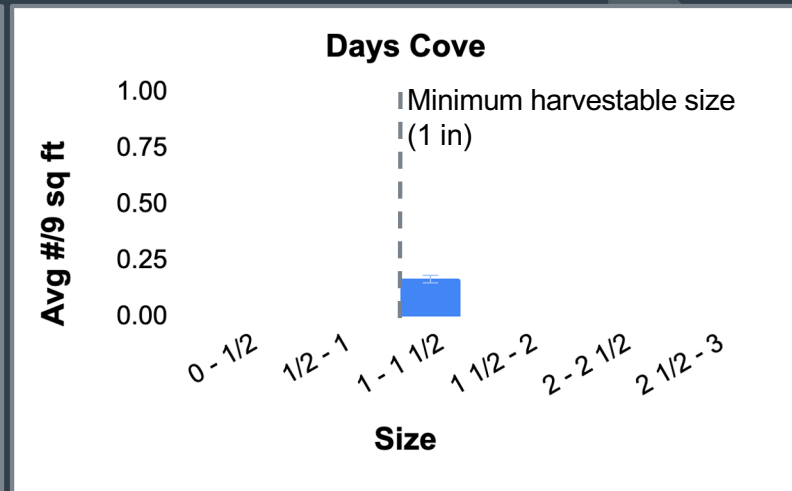
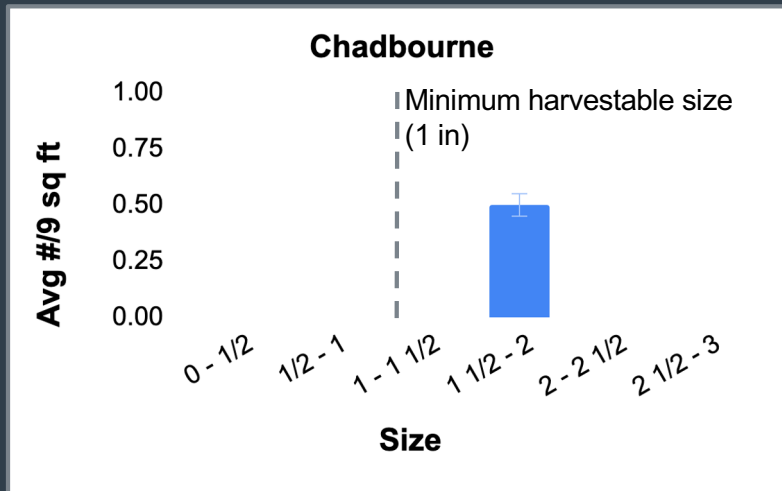
Westview Has Fewer Soft-shell Clams



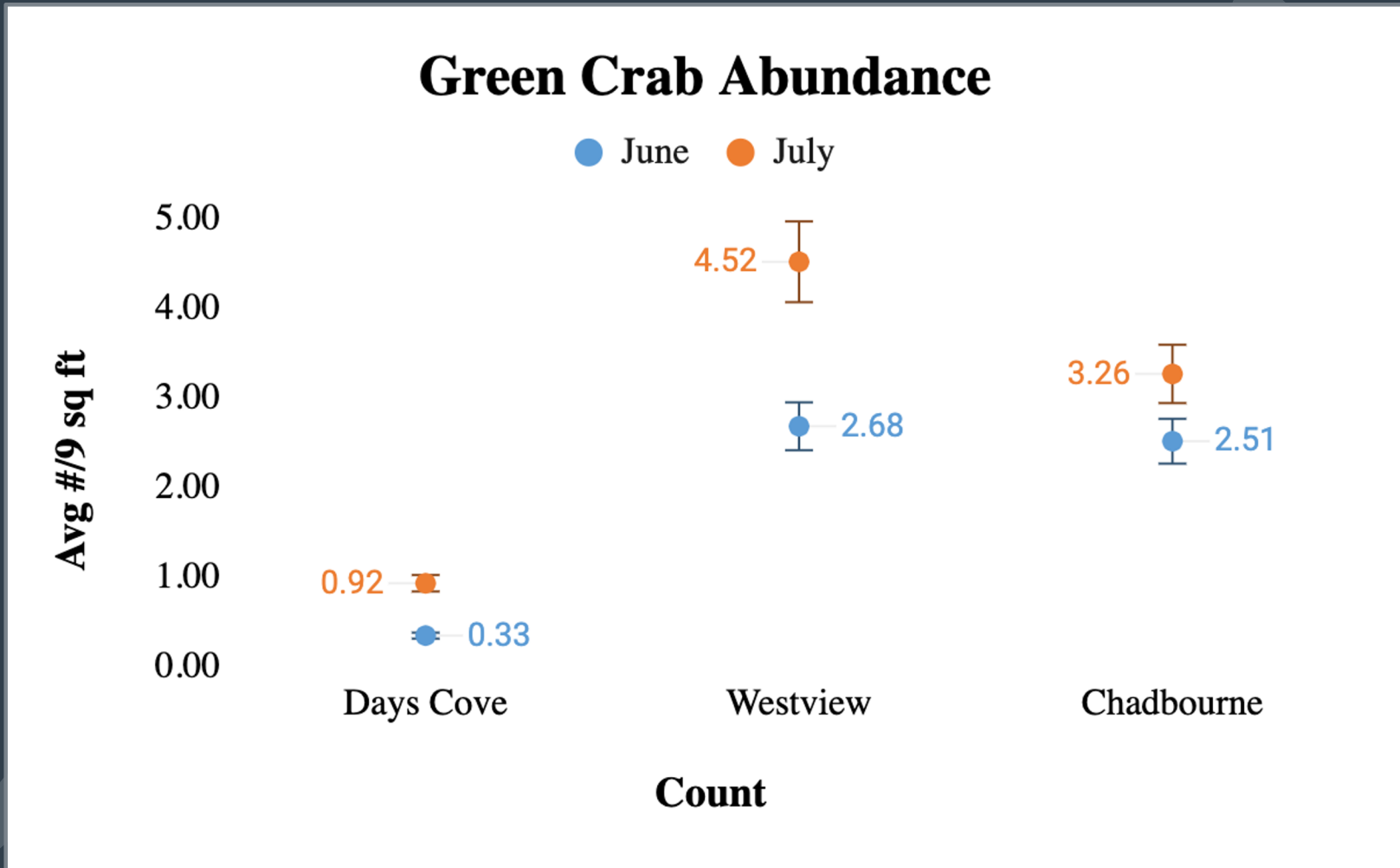
There Are Oysters Across All Sites



Quahogs Are Most Abundant at Westview

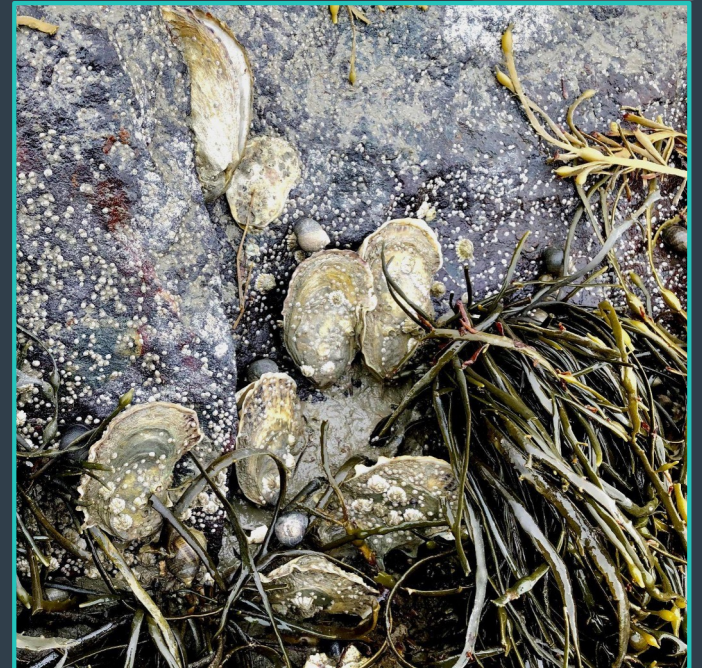


Fewer Green Crabs at Days Cove



Discussion

- *Quantifying shellfish populations*
 - Inform number of licenses issued
 - Conservation closure areas
- *Monitoring shellfish predators*
 - Conservation activity timing
 - Identify fishery threats
- *Harvester knowledge*
 - Guide future research
 - Highlight challenges and concerns





Questions?

Many thanks to:

- Damariscotta-Newcastle Joint Shellfish Committee
- Lincoln Academy
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- Broad Reach Maine Shellfish Restoration and Resilience Fund
- UMaine Mitchell Center & US National Science Foundation Program



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