# Barnstable Harbor Finfish and Shellfish Survey

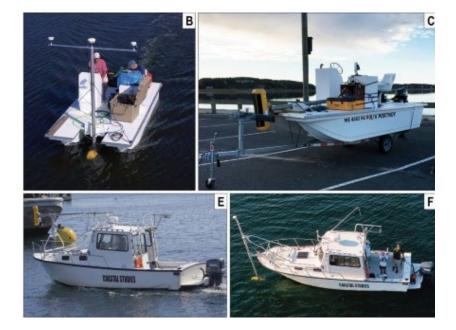




**Owen C. Nichols** Center for Coastal Studies

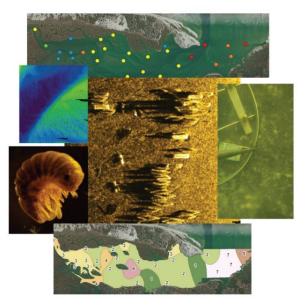


- Benthic Habitat Mapping 2018
- Sonar surveys, grab sampling





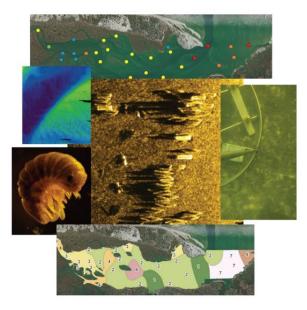
Center for Coastal Studies Provincetown Hiebert Marine Laboratory 5 Holway Avenue Provincetown, MA 02657 tel (508) 487-3623 fax (508) 487-4695

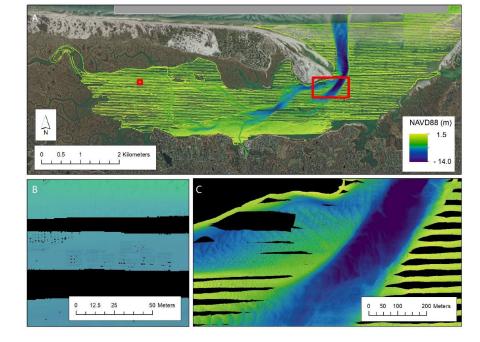


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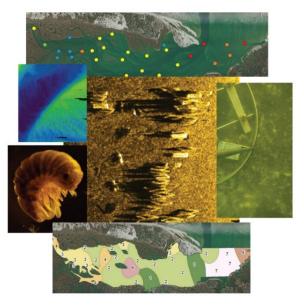


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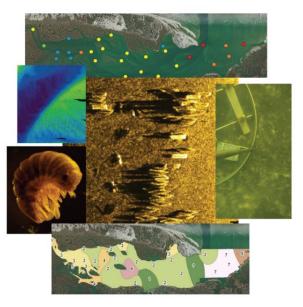


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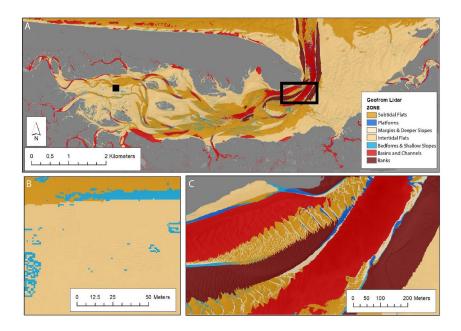




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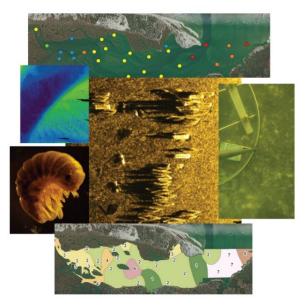


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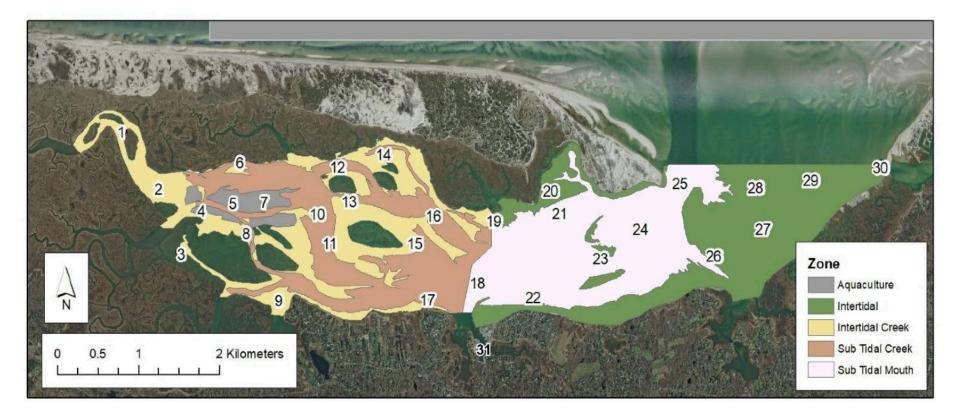




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• Benthic Habitat Mapping – 2018



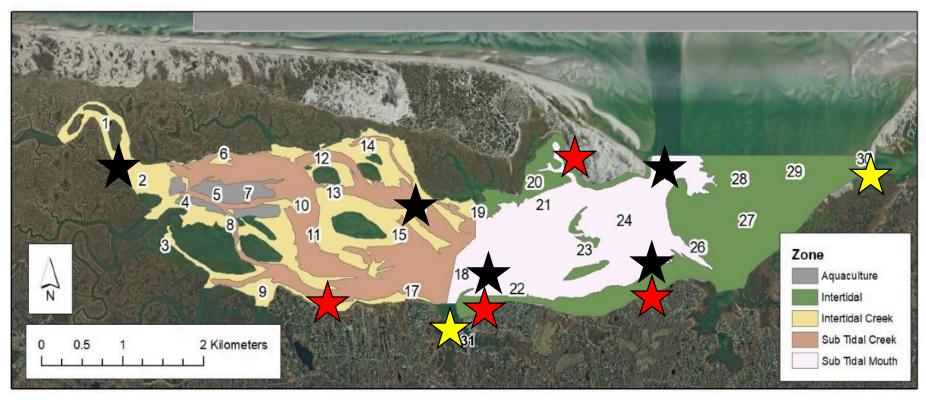
• Community-Based Fish and Shellfish Habitat Studies







• Next step: 2024-2025 Finfish and Shellfish Study!



Study design based on community feedback, consistency with regional studies

### Intertidal Surveys

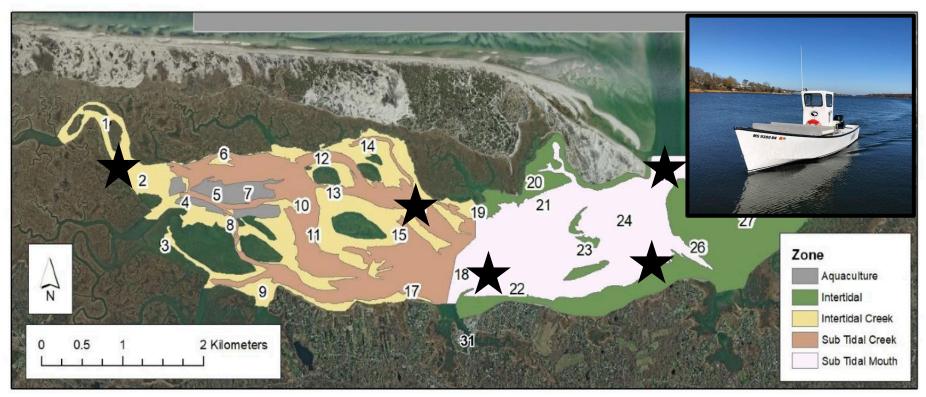
• Semimonthly seine sampling May 2024 – summer 2025



50' (15.2 m) beach seine, 1.2 m depth, 1.2 m square bag, and 4.8 mm knotless mesh, following the methods of Nichols *et al*. (2020)

# Subtidal Surveys

• Semimonthly trawl and dredge sampling July 2024 – summer 2025



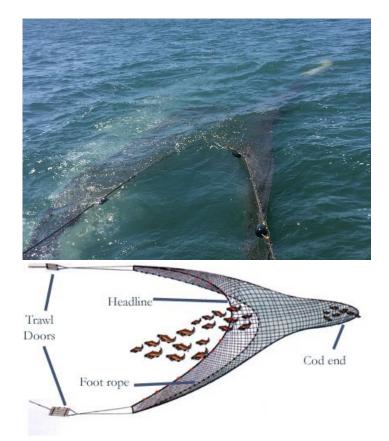
R/V *Kingfisher*, 20' (~7 m) center-console shallow v-hull vessel, 90 hp outboard engine ("Butchy boat")

# Subtidal Surveys

• Semimonthly trawl and dredge sampling following standardized methods (Nichols *et al.* 2020)



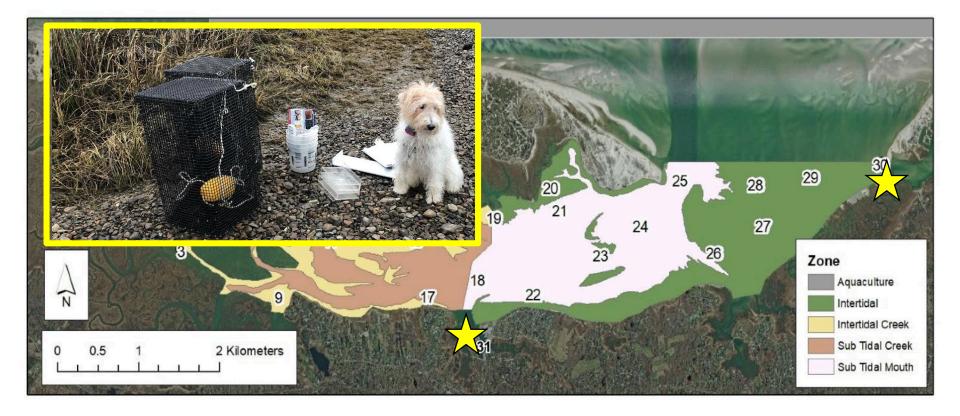
bay scallop dredge (3 min tow, 2 replicates)



30' (9.1 m) sweep Wilcox shrimp trawl (5 min tow, 2 replicates)

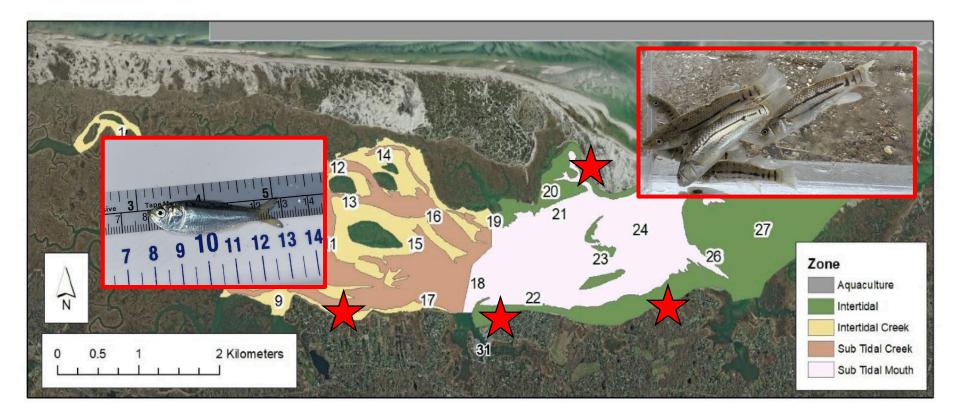
# **Trap Sampling**

• Semimonthly sampling with eel traps July 2024 – summer 2025



#### Intertidal Surveys

• Semimonthly seine sampling May 2024 – summer 2025



### Subtidal Surveys

• Semimonthly trawl and dredge sampling July 2024 – summer 2025



### Subtidal Surveys

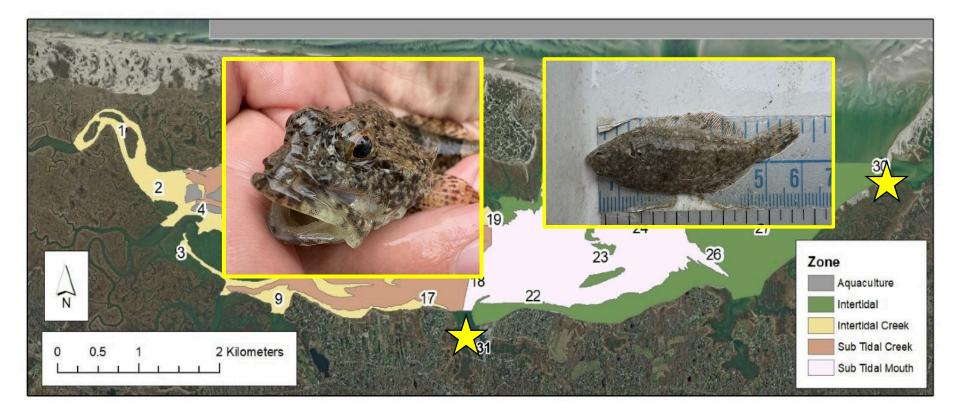
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• Semimonthly sampling with eel traps July 2024 – summer 2025



Introduction - Methods - Results - Discussion

## Stay Tuned!

• Community-based science: student and volunteer involvement!





Introduction - Methods - Results - Discussion

# Stay Tuned!

• Community-based science: student and volunteer involvement!



# Stay Tuned!

#### Barnstable Harbor from the Bottom Up: Our Fish and Shellfish Survey is Underway!

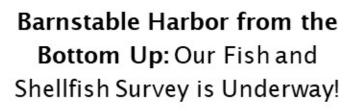




Some specimens from the field - scan to learn more and get involved – we need your support!







From July 2024 through July 2025, the Marine Fisheries Research team from the Center for Coastal Studies will be studying the marine species in Barnstable Harbor. Supported by the Friends of Barnstable Harbor, we are collecting baseline data to guide future resiliency and restoration efforts. There will be both boat and land-based sampling each month, and the team wants you to learn more and get involved!



Who: Center for Coastal Studies with support from Friends of Barnstable Harbor and the Town of Barnstable (and you!)
What: Finfish and shellfish surveys in Barnstable Harbor
When: July 2024–July 2025 Where: Barnstable Harbor
Why: Collect baseline data for future resiliency and restoration efforts
How: Monthly sampling throughout the year; we need your support!





#### Next Steps

• Long-term monitoring is necessary to place our observations in broader context: short-term variability and long-term change



"If you do not know where you come from, then you don't know where you are, and if you don't know where you are, then you don't know where you're going. And if you don't know where you're going, you're probably going wrong. -Terry Pratchett