

# DMR's Seafloor Mapping in the Casco Bay Region

Maine Department of Marine Resources  
Bureau of Marine Science  
Division of Ecology and the Environment

Peyton Benson, MCMCI lead hydrographer  
[peyton.benson@maine.gov](mailto:peyton.benson@maine.gov)

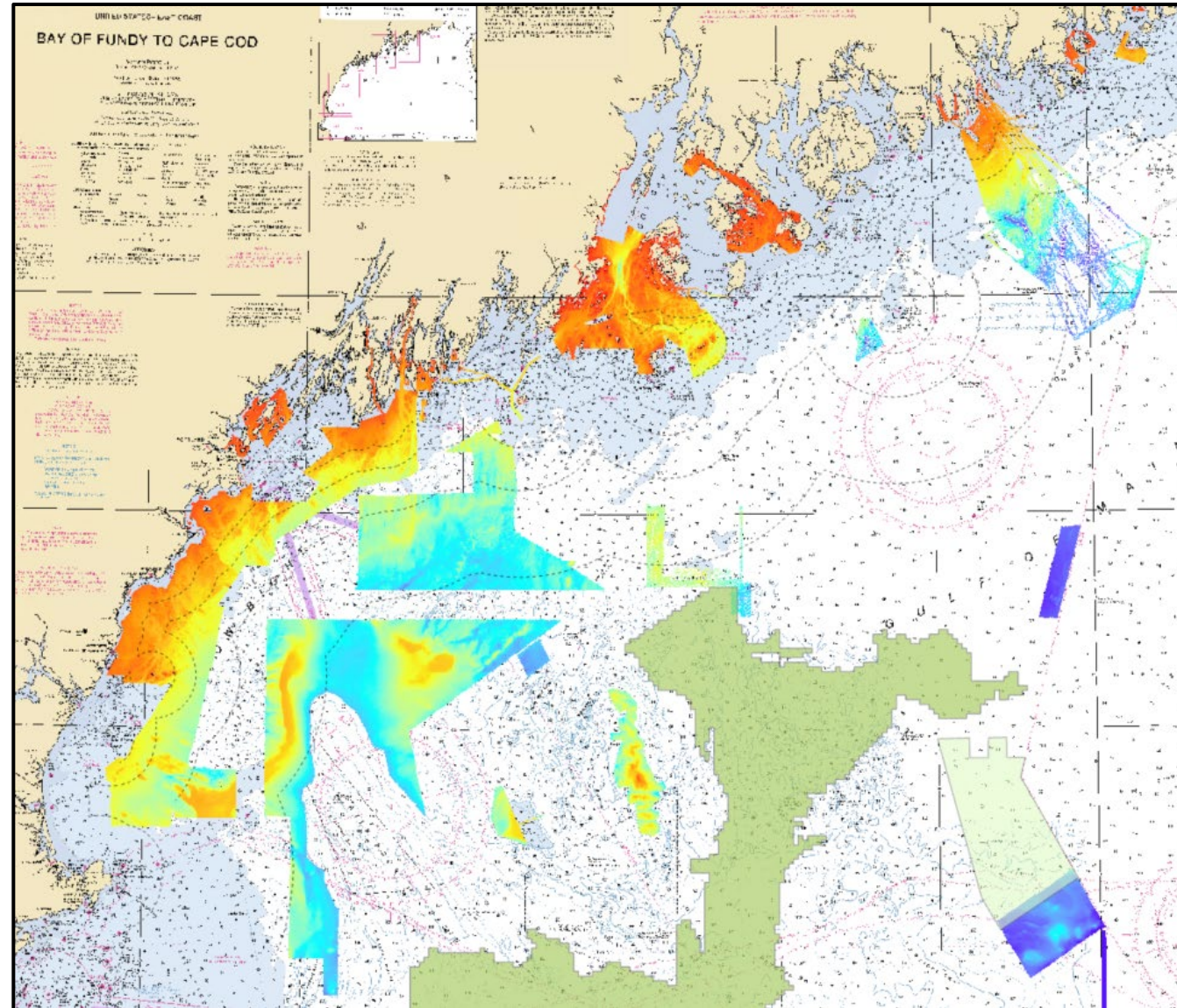
Jesse Minor, MCMCI program lead  
[jesse.minor@maine.gov](mailto:jesse.minor@maine.gov)





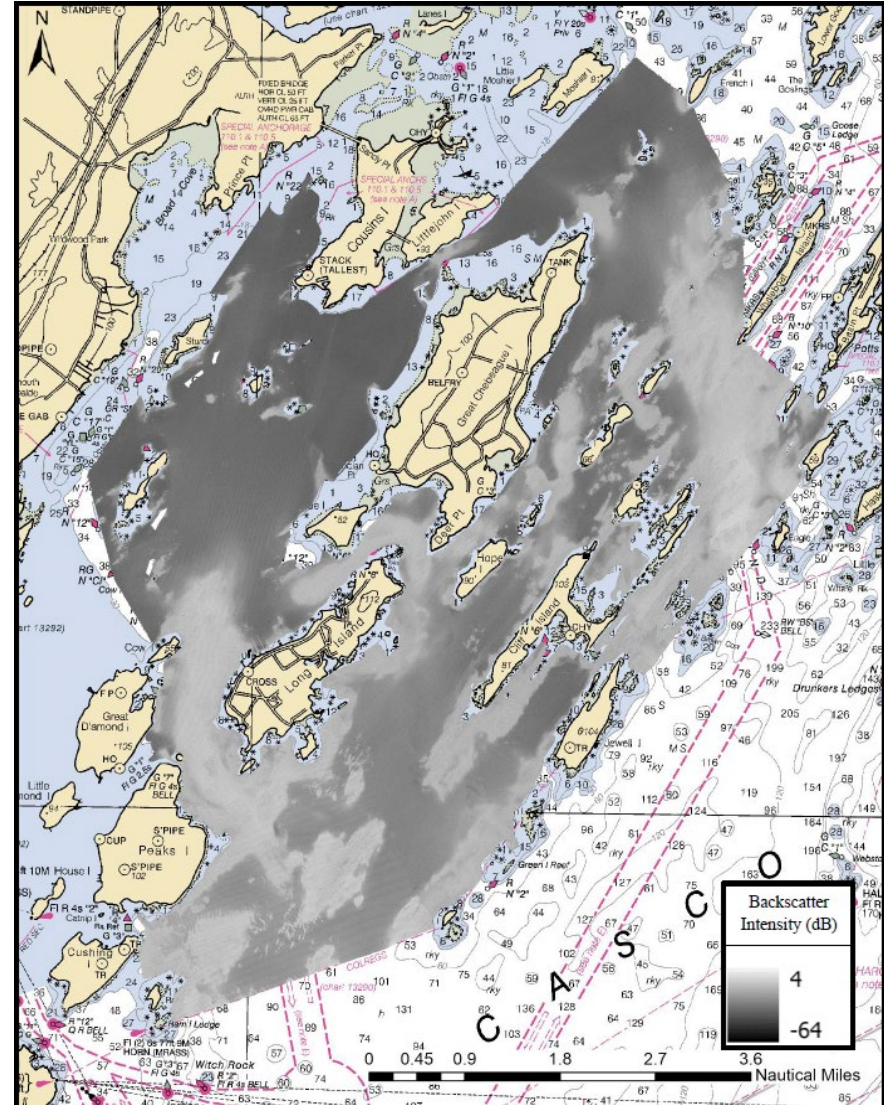
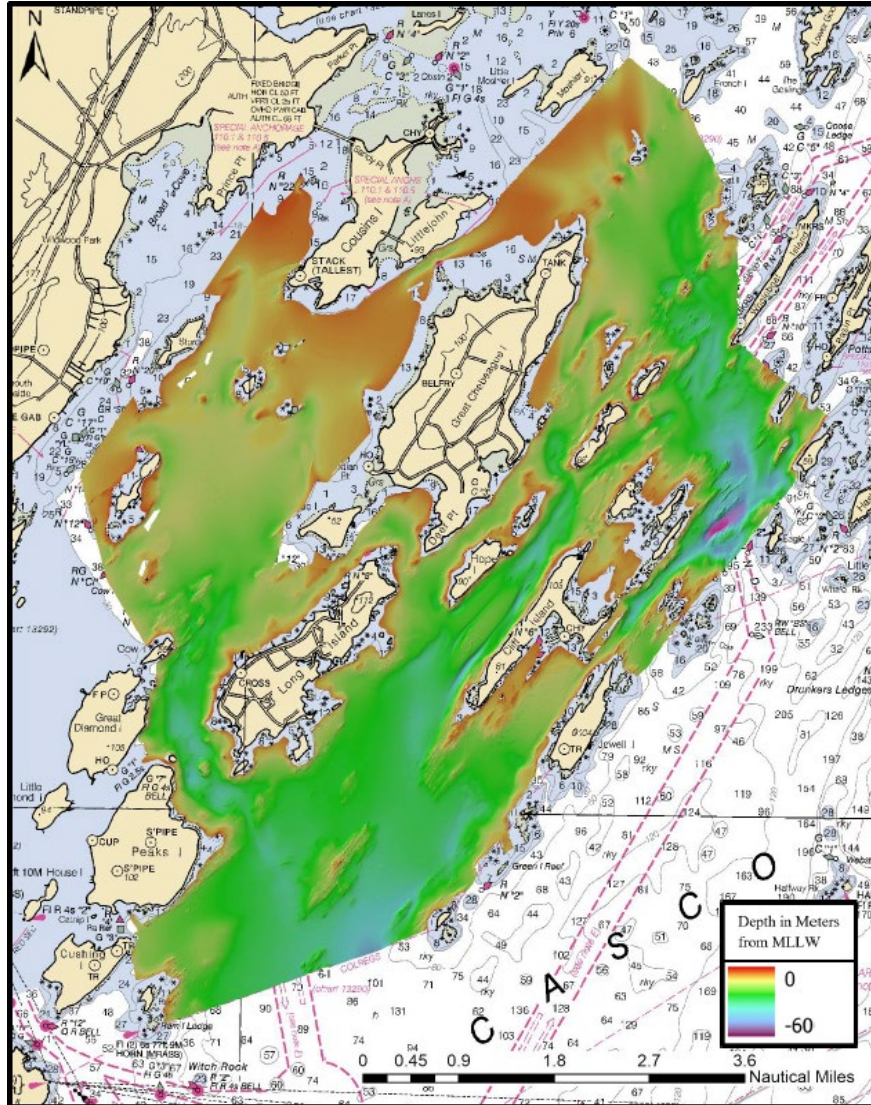
# High-resolution bathymetry mapping in the Gulf of Maine

- Only ~20% of state waters are mapped
- Many areas were mapped via soundings in late 1800s or WWII-era
- Large data gaps
- Mapping supports marine planning, conservation, and scientific research



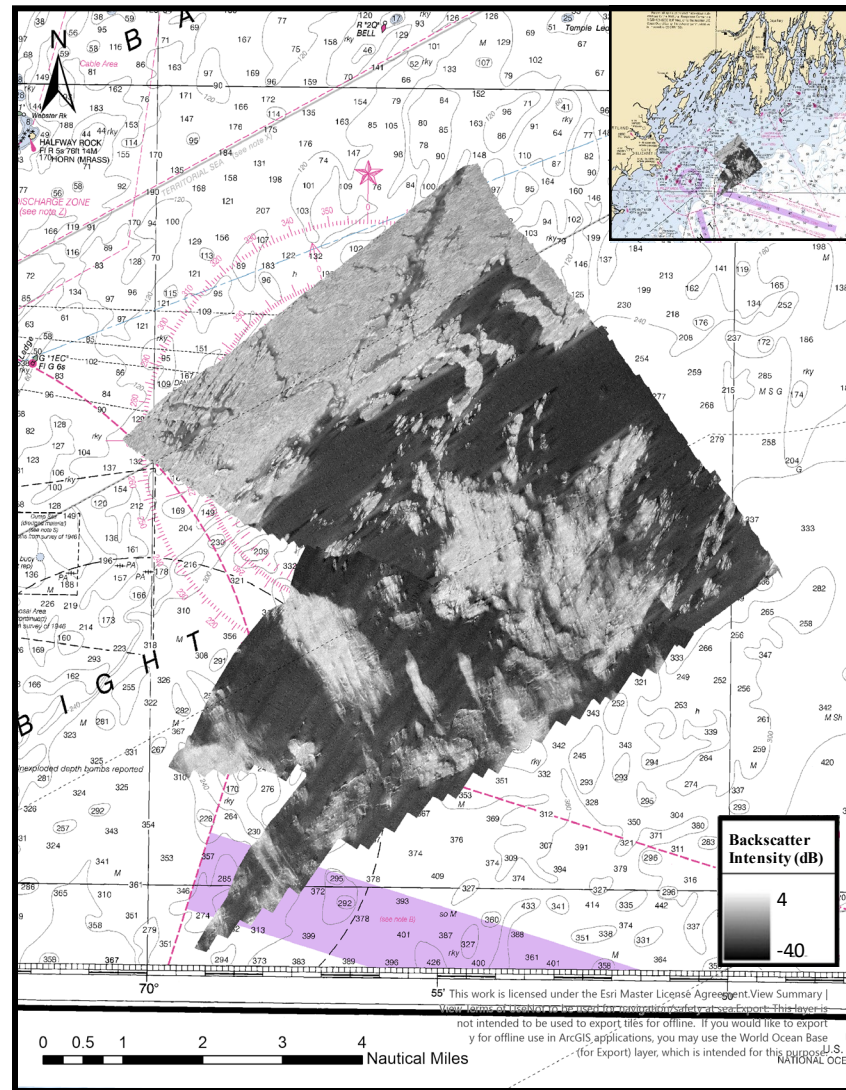
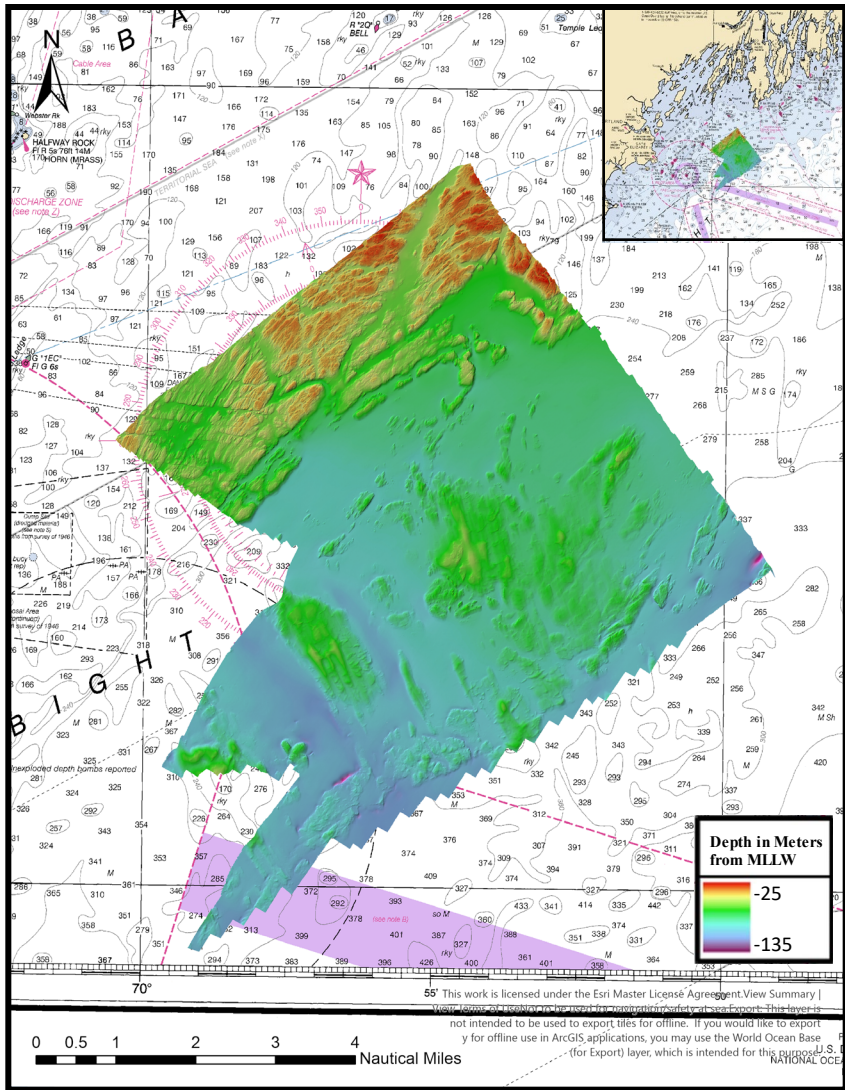


# MBES Data Collection: Inner Casco Bay





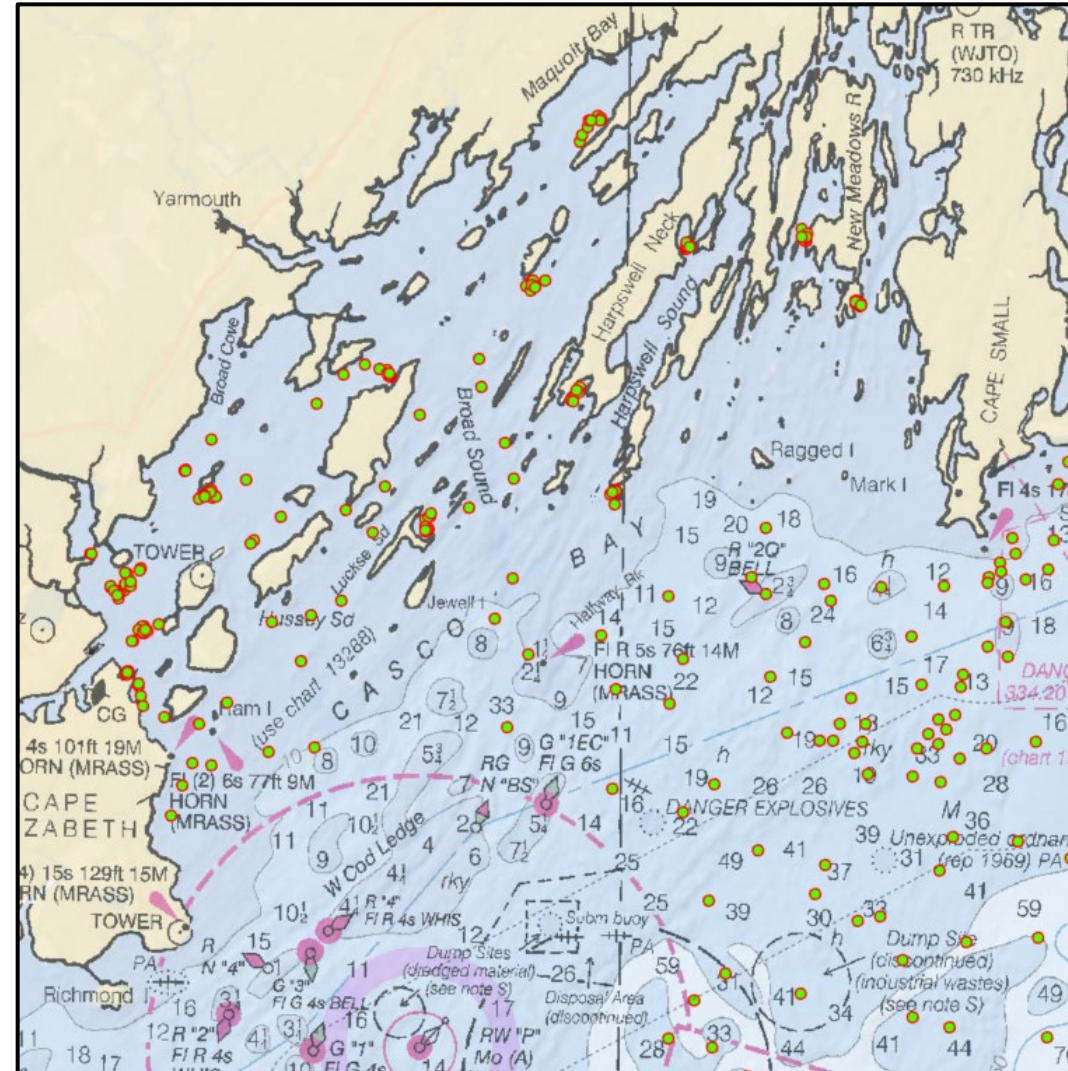
# MBES Data Collection: Outer Casco Bay





# Benthic Grab Sampling, Casco Bay region

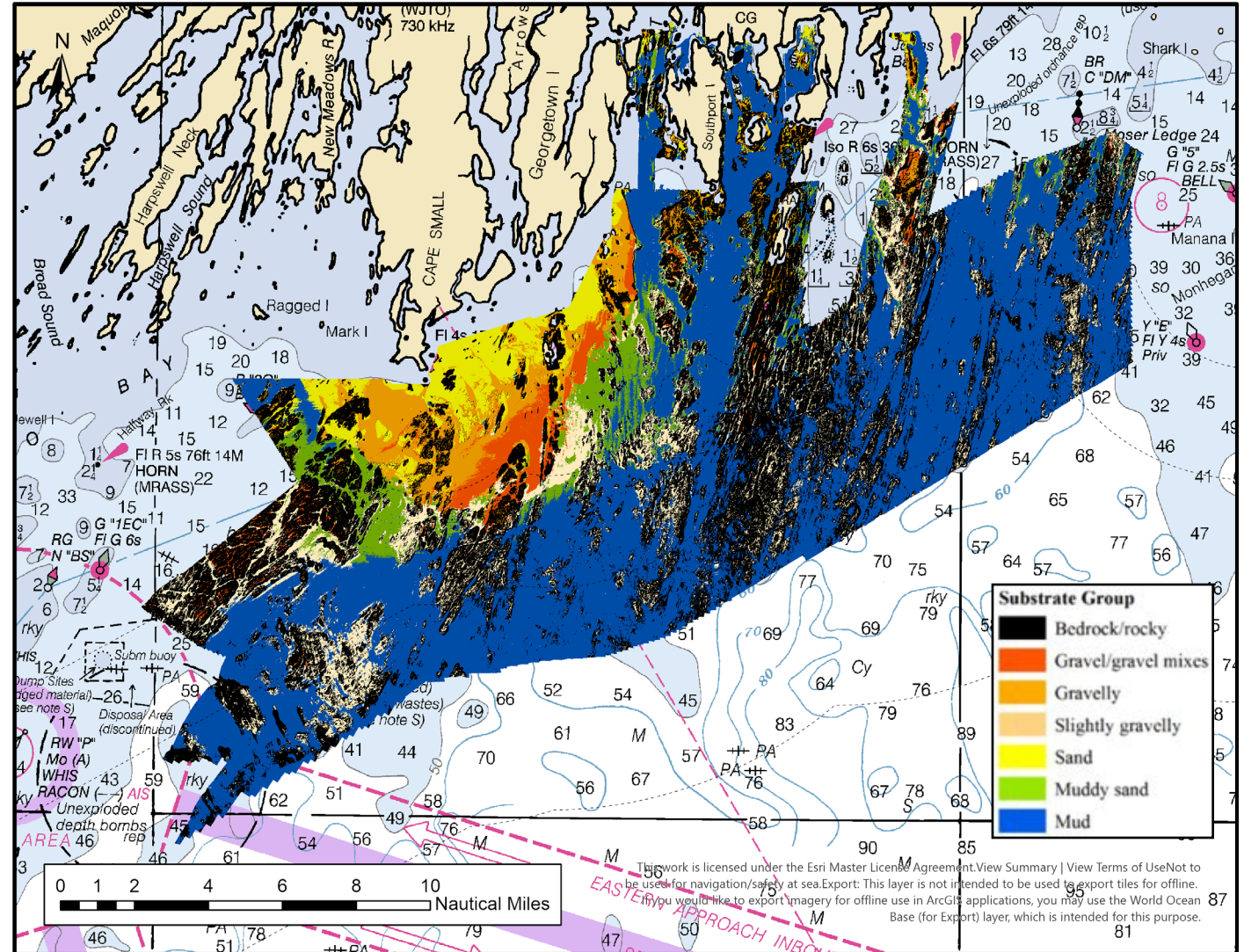
- Sediment grain size analysis (UMaine Orono)
- Video of benthic epifauna
- Taxonomic classification of benthic infauna
- Data used in habitat maps, textural classifications and other derivative products, and detection of invasive species





# Textural Classification Updates

- Existing textural classes extended to Outer Casco Bay
- Current work:
  - Testing grain-size results against the model
  - Reworking the model before applying to Inner Casco Bay





# Mapping plans, summer 2024-winter 2025

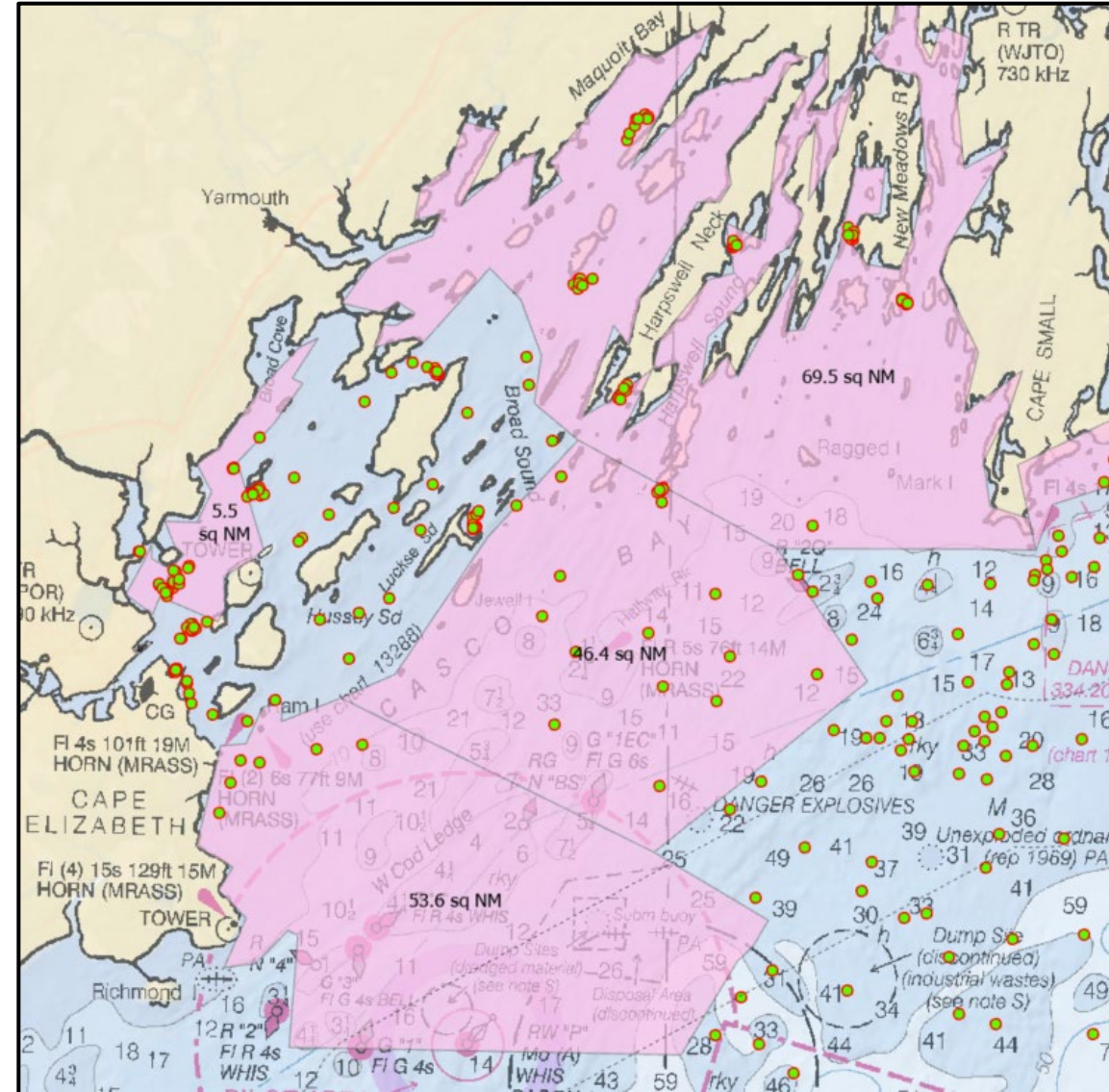
- Mapping vessel will be berthed in Portland starting in June

Focus: 175 nmi<sup>2</sup>

1. Potential offshore wind transmission cable routes
2. Fill bathymetric data gaps
3. Additional grab sampling to fill gaps and improve representative coverage

Outcomes:

1. Habitat maps
2. Textural classification



# Data Access

- Data are available from the following sources and from MCMI by request
- [Link to Inner Casco Bay Descriptive Report](#)
- [Link to Outer Casco Bay Descriptive Report 2021](#)
- [Link to Outer Casco Bay Descriptive Report 2020](#)
- [NCEI Bathymetric Data Viewer](#)
- [IHO Data Centre for Digital Bathymetry](#)
- [Maine DMR Open Data – Bathymetry maps](#)

Questions?

[jesse.minor@maine.gov](mailto:jesse.minor@maine.gov)

[peyton.benson@maine.gov](mailto:peyton.benson@maine.gov)

