



Mussel FIP Data

Update on Data Collection and Analysis

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**Gulf of Maine
Research Institute**

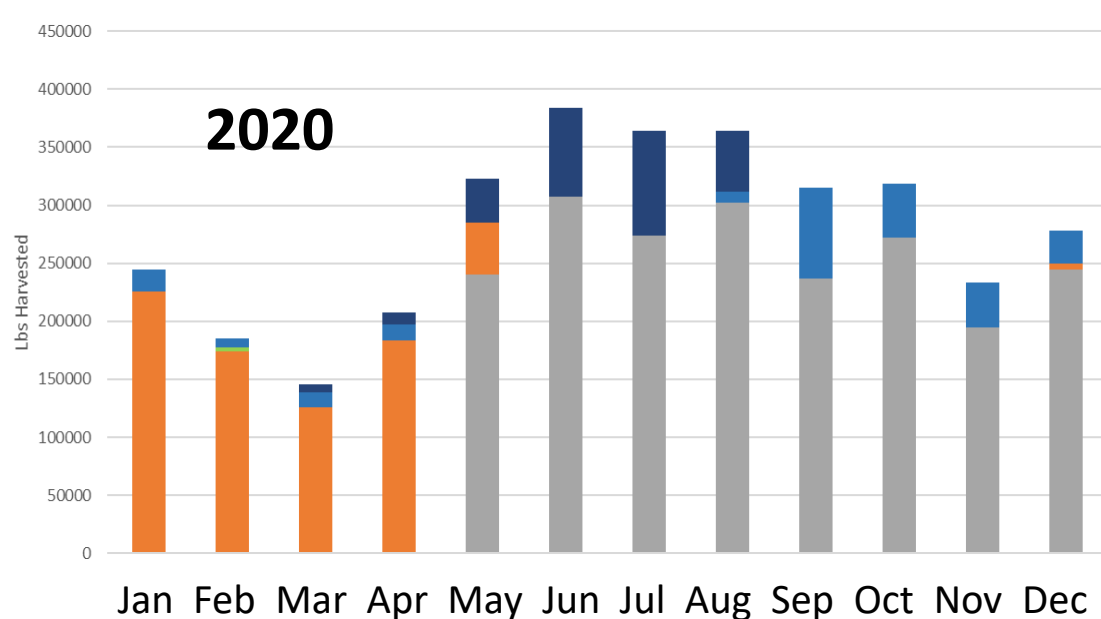
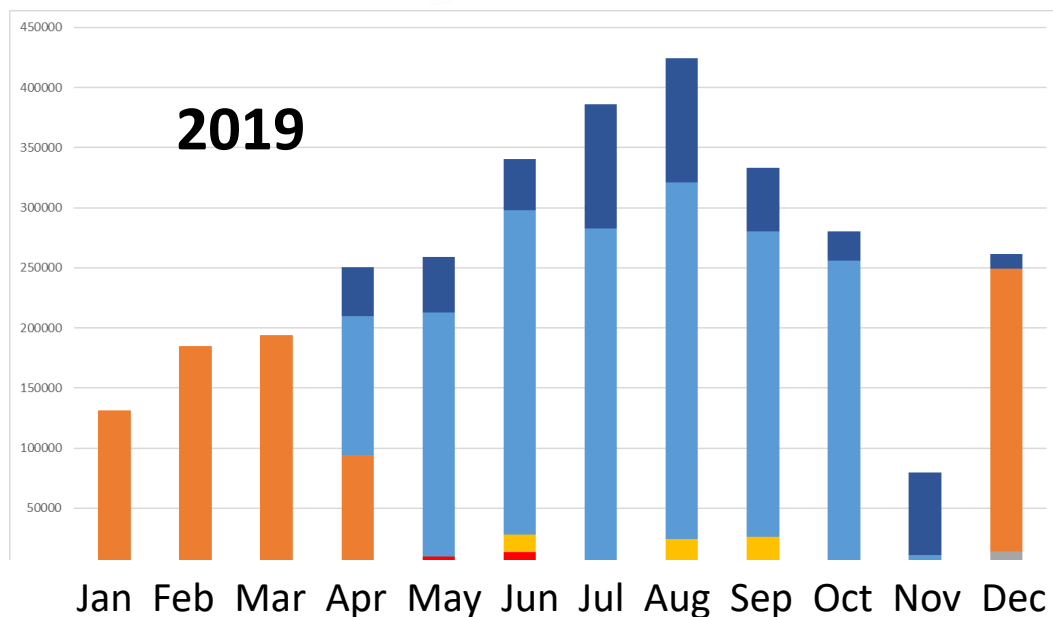
Science. Education. Community.



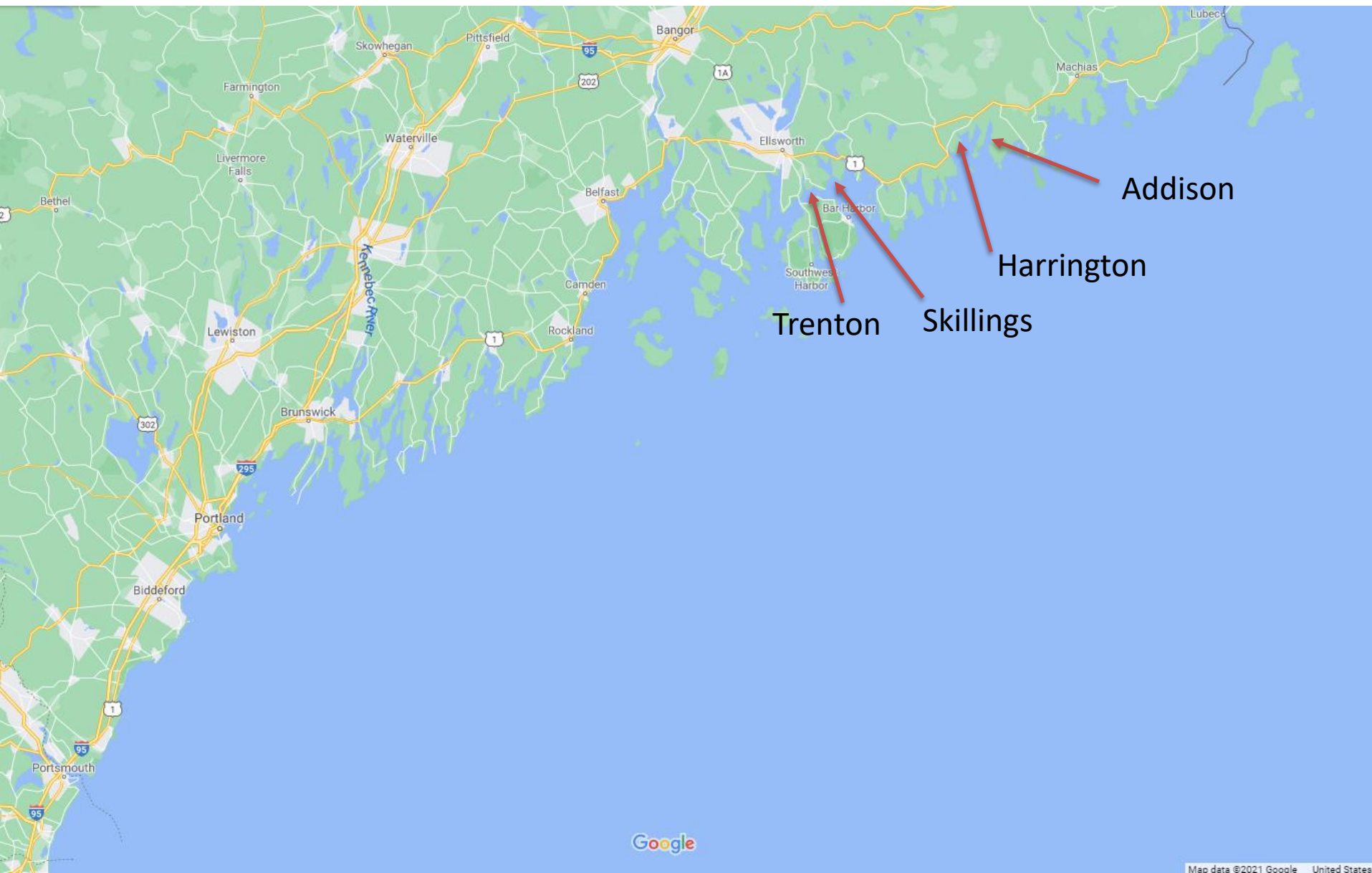
Outline

- Dealer harvest location data
- GMRI Sampling
- Catch Per Unit Effort

Dealer Harvest Location Data



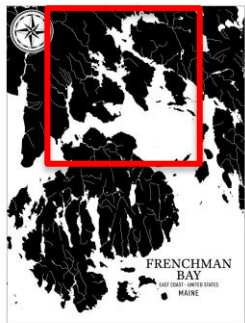
Sampling Areas



GMRI Sampling Effort

- Goal is to get a snapshot of the size of mussels in areas important to the fishery and collaborate with DMR
- Opportunistically sample seed sets to observe mortality rates
- Sampled 10 sites in Frenchman Bay, collected data from over 2,800 adult mussels and thousands of seed mussels





Sampling Areas



Seed Set Samples

Collected in the field (Trenton), measured in the laboratory

October 2019

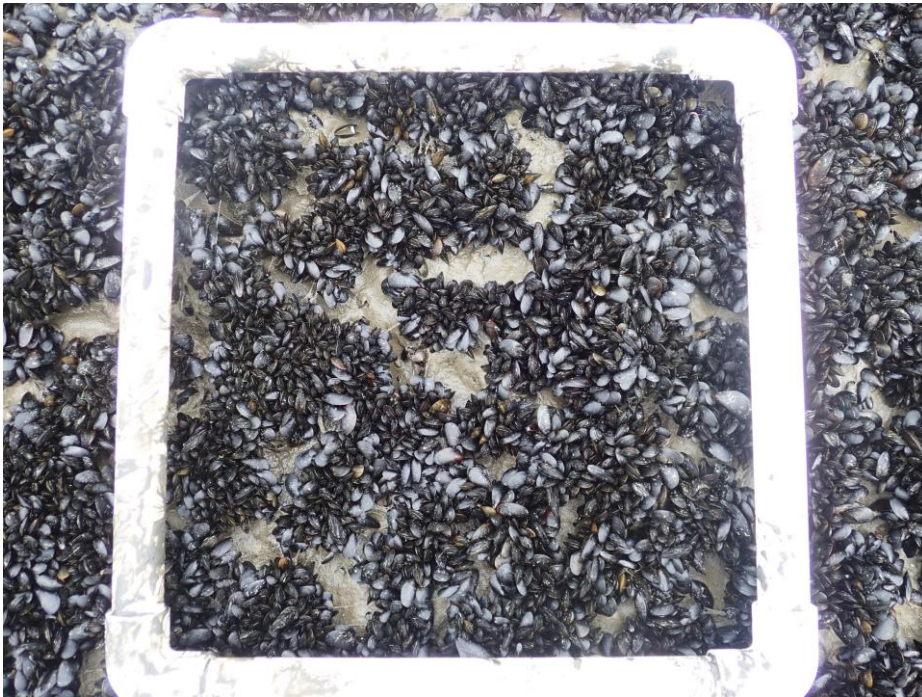
- ~5,000/sqft
- 2-10 mm

May 2020

- ~2,000/sqft
- 4-15 mm

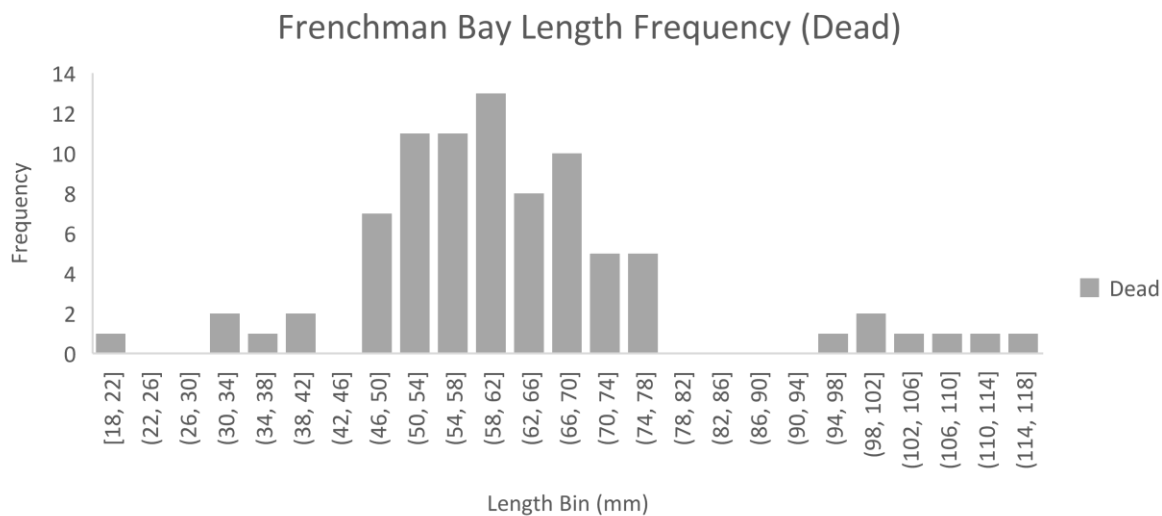
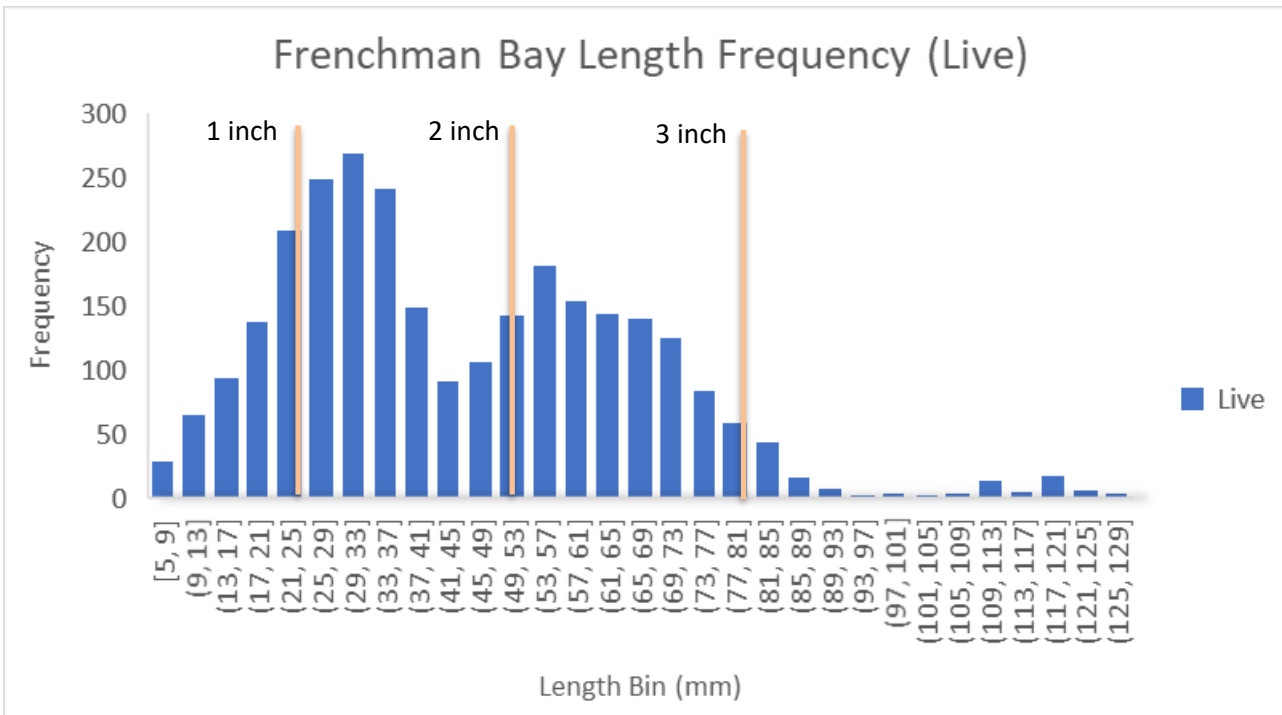
Adult mussels

- 15-75/sqft
- 50-80 mm



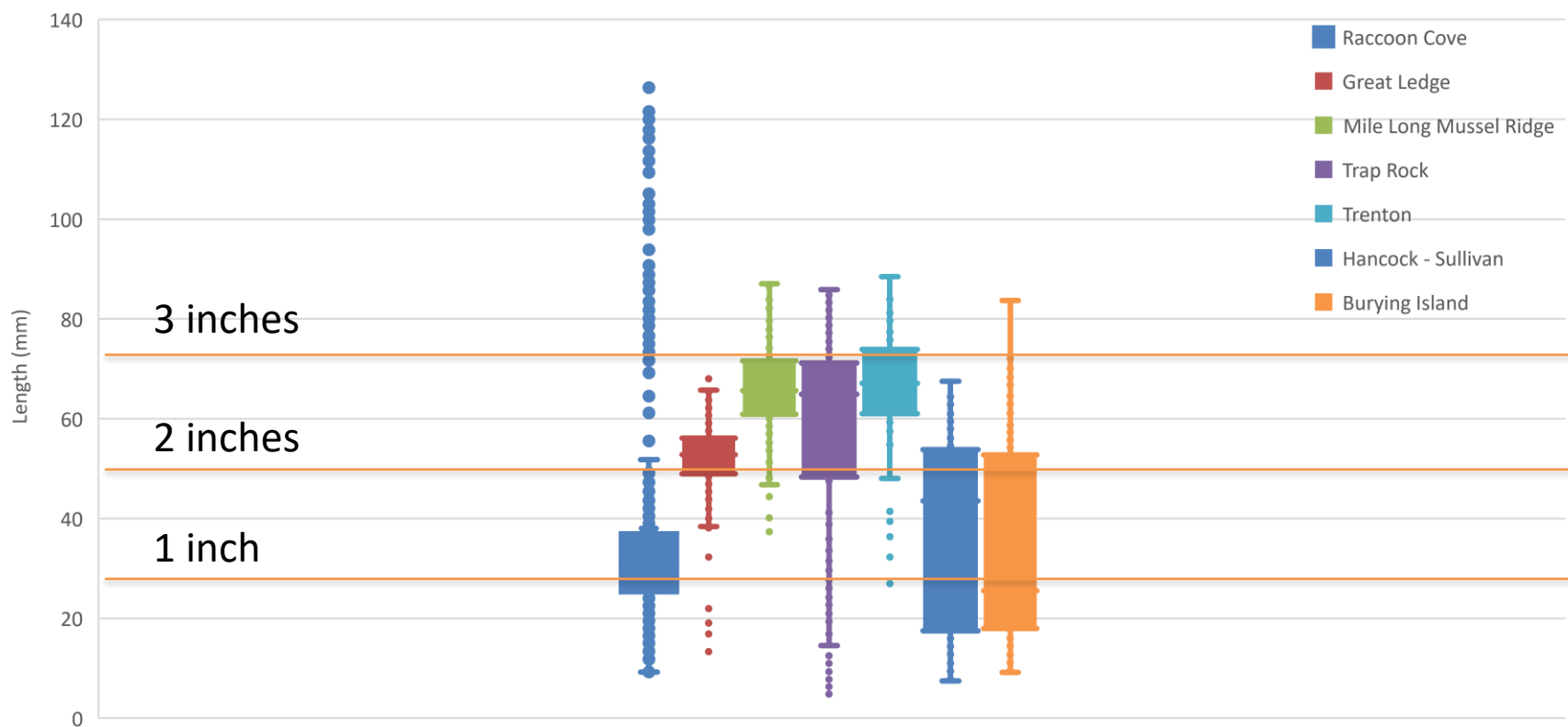
- Seed set sample also taken at Hancock-Sullivan bridge (not yet analyzed)
- DMR has also sampled here

Mussel Lengths

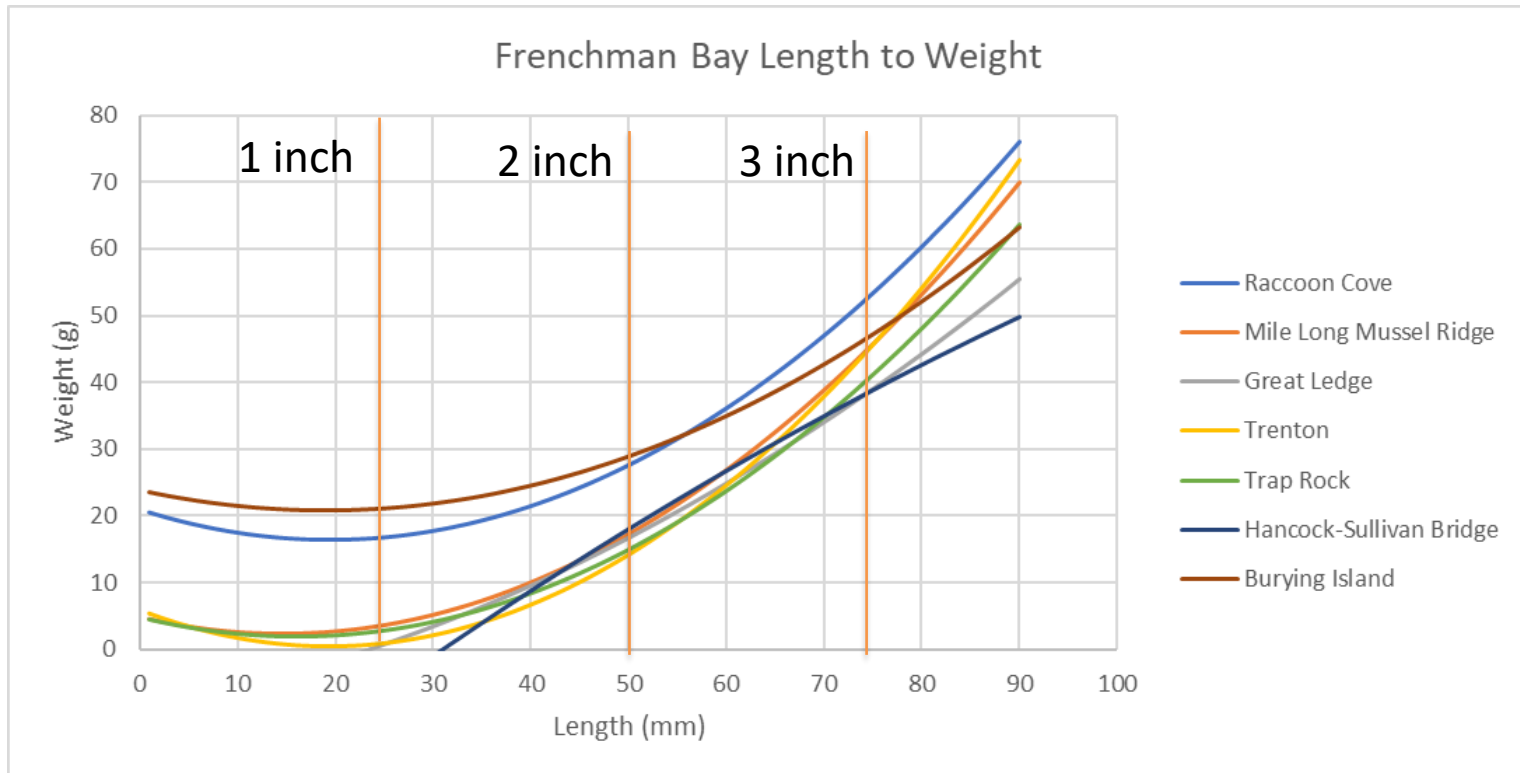


Mussel Lengths

All Frenchman Bay Sites

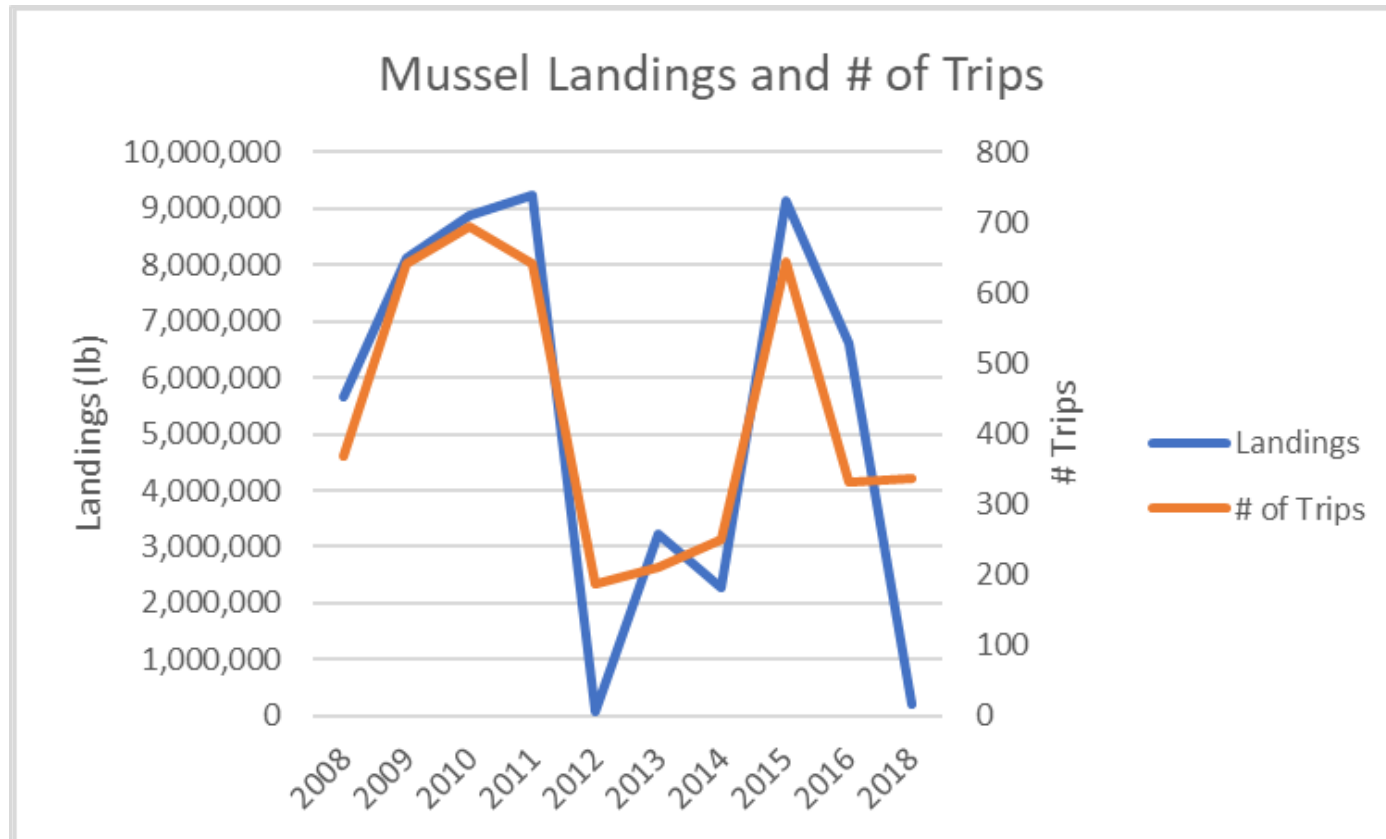


Length to Weight Relationship



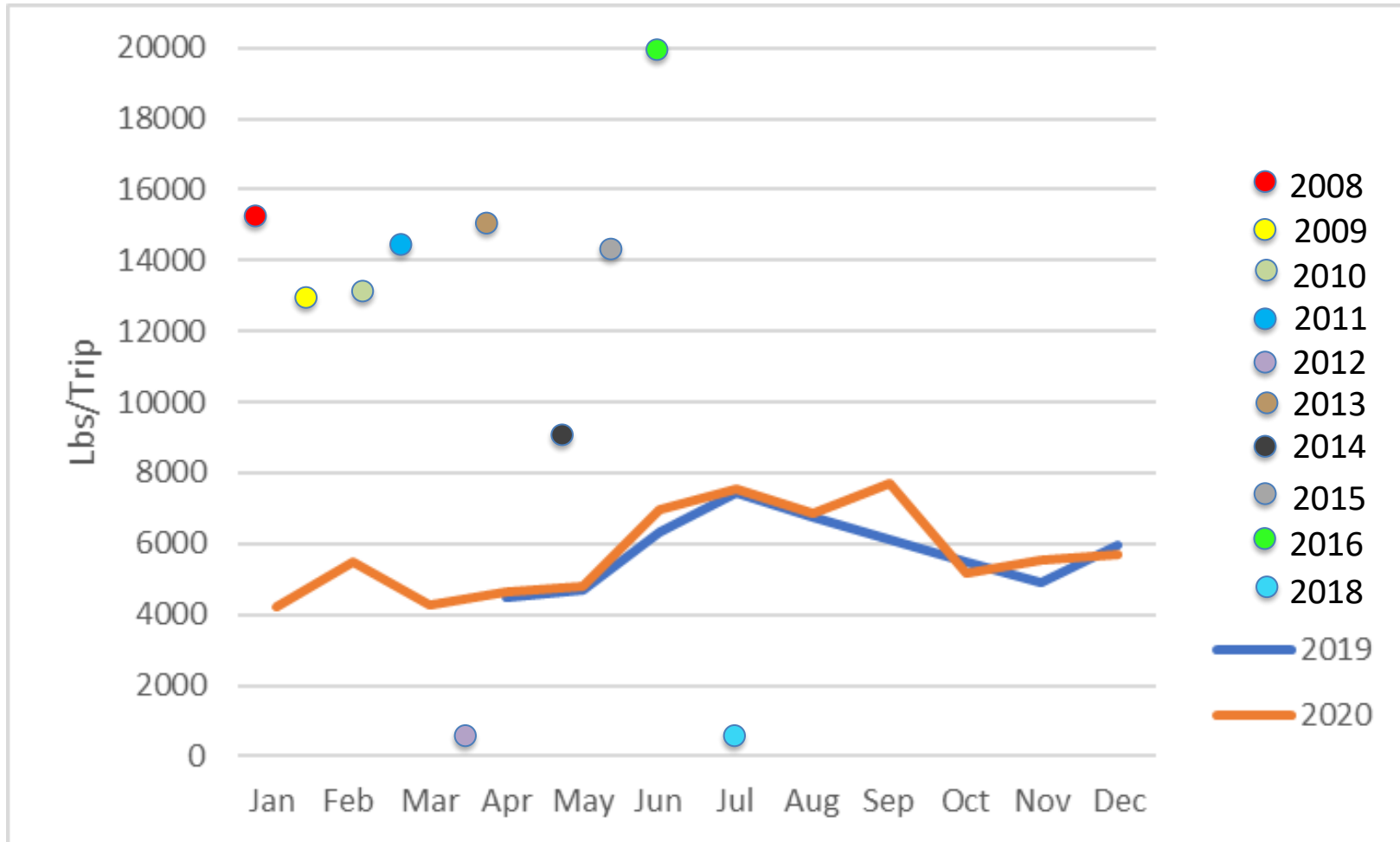
- Most sites have a similar relationship
- Raccoon Cove and Burying Island slightly larger
- Weight measurements for smaller mussels less accurate

Catch Per Unit Effort



- DMR historic data shows strong relationship between landings and fishing effort
- That relationship appears very consistent

Catch Per Unit Effort



- Current lbs/trip appear lower than DMR historic data
- Market driven fishing effort and small sample size creates bias
- Large differences and trends can still be informative

Closures

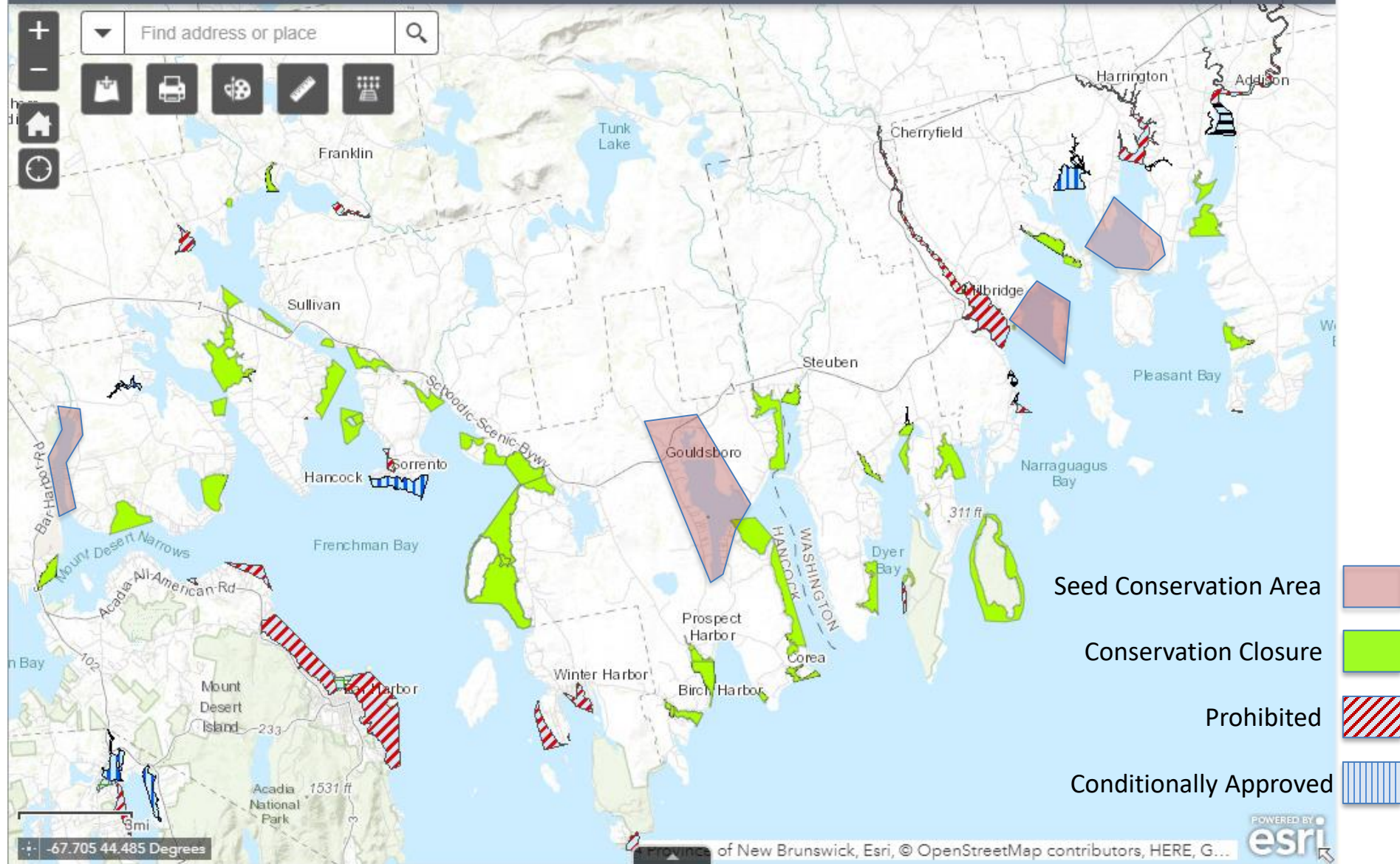


Public Health Map Web App

with Web AppBuilder for ArcGIS



Find address or place



Data Sources – Conclusions

Field Sampling

- Raccoon Cove has some large mussels but mostly similar to other sites
- Taunton Bay sites are similar to other Frenchman Bay sites
- Seed set still has high densities

Dealer Harvest Location Data

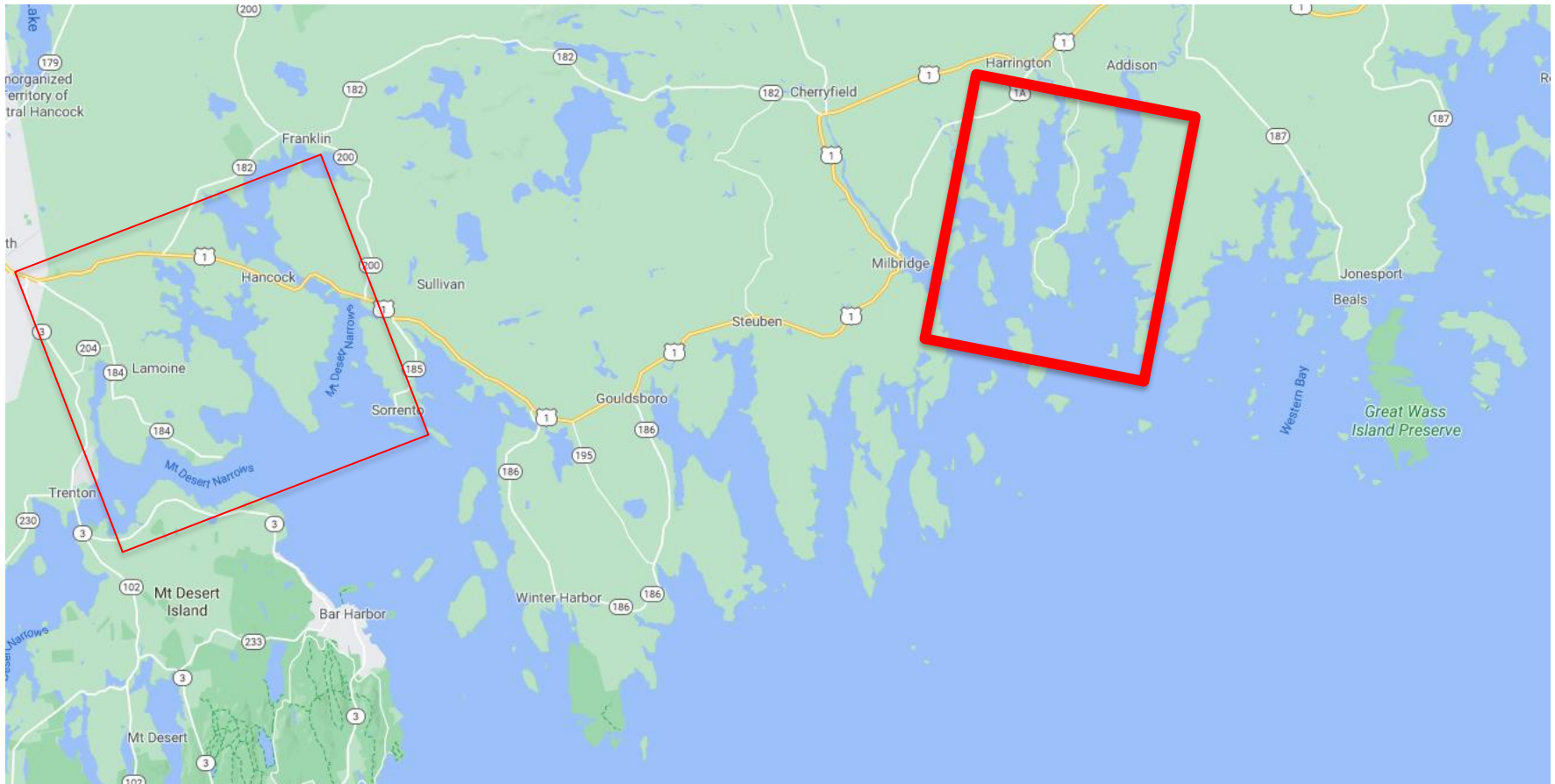
- Critical to be able to describe the fishery, continued collection will allow for detection of changes over time
- Trenton, Skillings, Harrington, Addison are main harvest areas

Bacterial Closures

- Varies by watershed, estimates ~10%-25%

Spring 2021 Sampling

- Harrington and Addison Rivers
- Mussel beds are subtidal
- Need precise guidance from industry



Questions?