

Shellfish Advisory Panel
July 26, 2017, 4:30PM
URI Bay Campus, Corless Auditorium
215 S Ferry Road, Narragansett, RI 02882

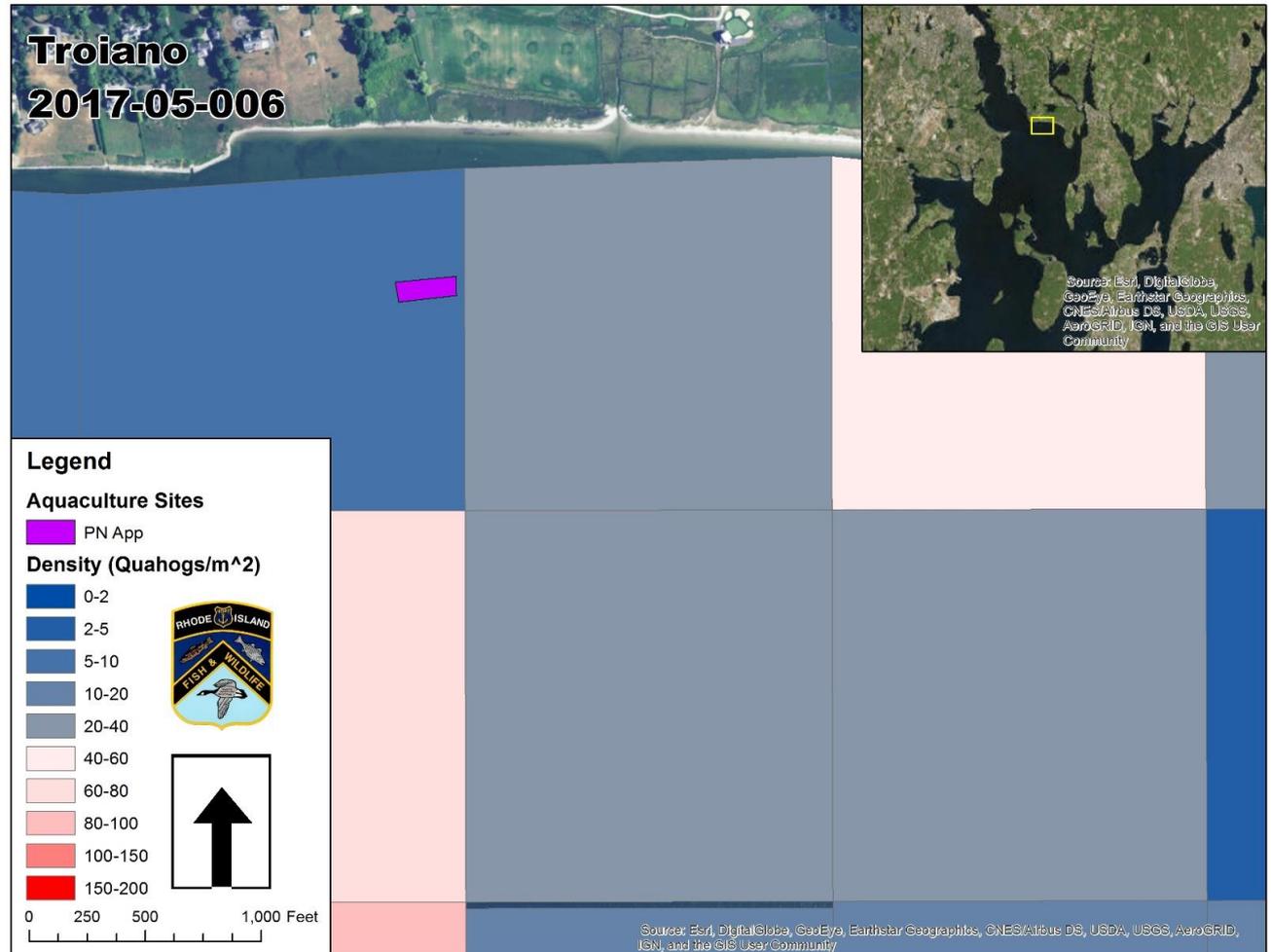
AGENDA

1. Review of Aquaculture Applications sent to Public Notice
 - a. 2017-05-006, Troiano, Upper Narragansett Bay (Conditional A)
 - b. 2017-01-007, Roebuck, Pt. Judith Pond
2. Future Aquaculture Management in Conditional Areas
3. Preliminary Discussions on Shellfish Management in the Providence River Shellfish Management Area
4. Discussions on Winter Harvest Schedule for Shellfish Management Areas

1. Aquaculture Leases

2017-05-006, Troiano - Upper Narragansett Bay

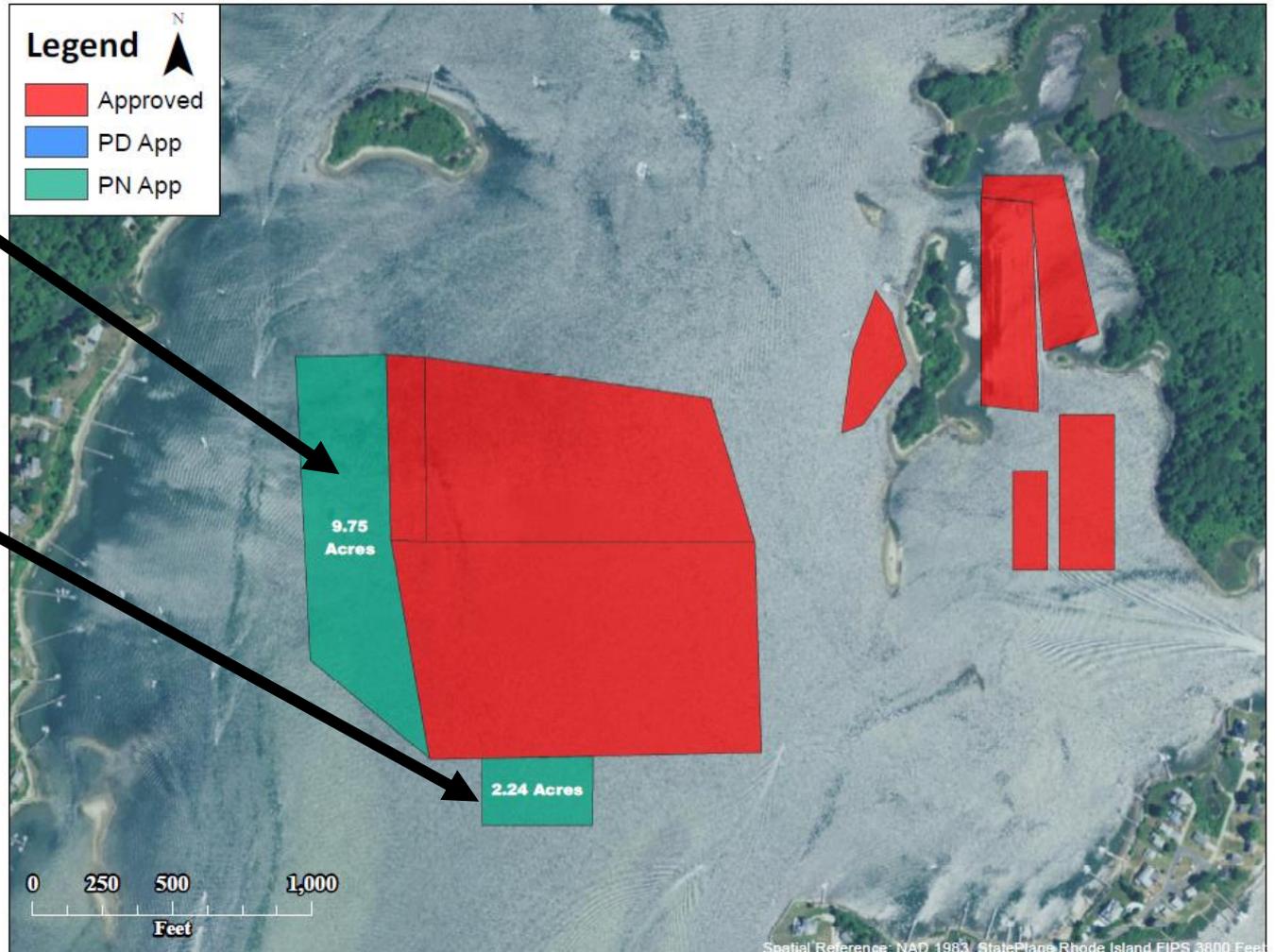
- 0.5 acre lease for oysters
- In Conditional Area A
- Submerged longline system



1. Aquaculture Leases

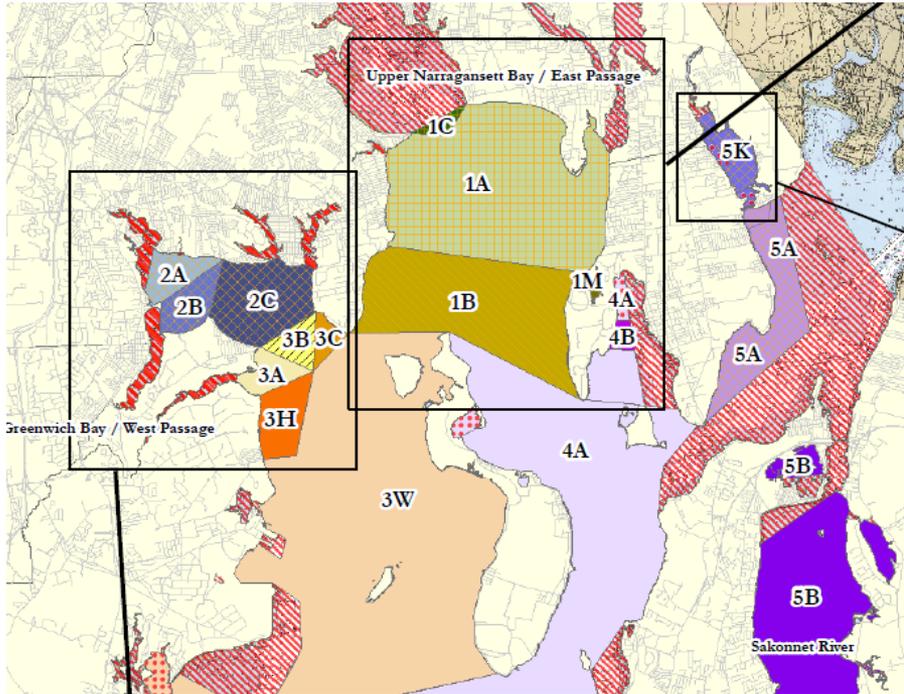
2017-01-007, Roebuck - Pt. Judith Pond

- 9.75 acre lease for bottom plant oysters
- 2.24 acre lease for bottom cages
- Species: oysters, soft-shell clams, hard clams, bay scallops, and mussels

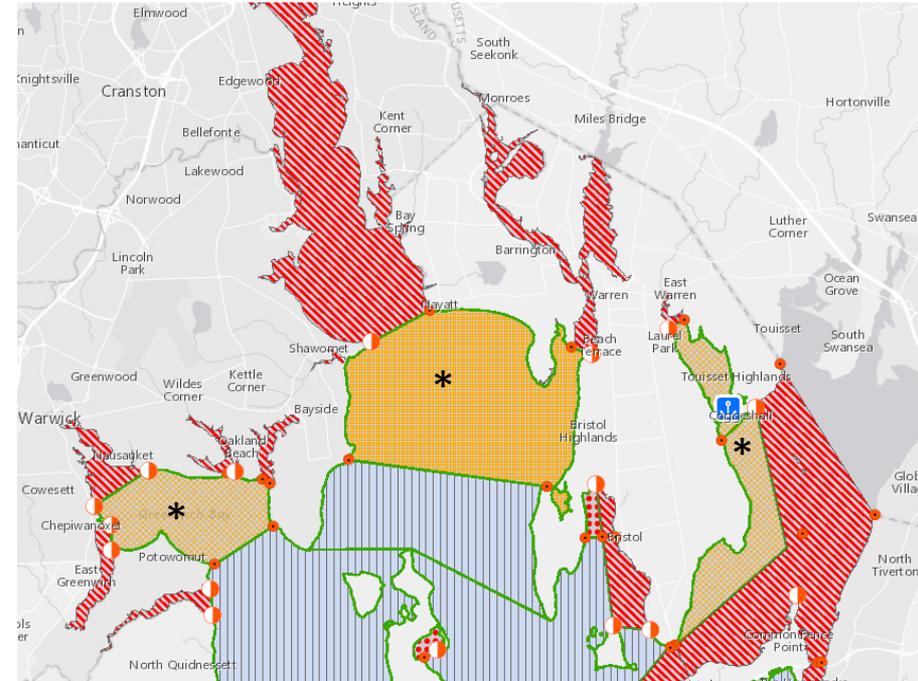


2. Future Aquaculture Management in Conditional Areas

Tagging Areas

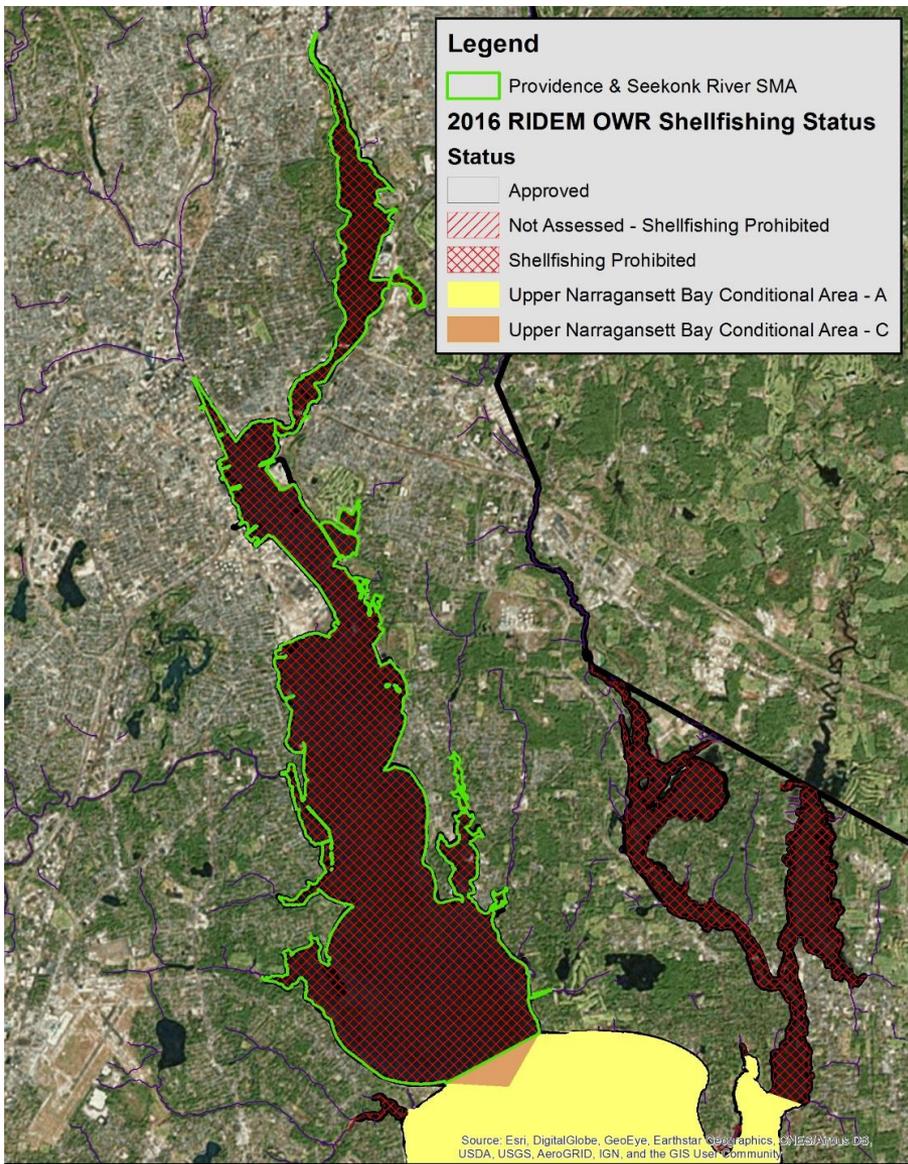


Conditional Closures*



Extensive commercial fishing in the Upper Bay: should certain areas in the northern Bay be prohibitive to aquaculture to preserve commercial fishing grounds and avoid future industry-aquaculture use conflicts?

3. Preliminary Discussions on Shellfish Management in the Providence River Shellfish Management Area (PR SMA)



Purpose of the Management Area:

Facilitate potential future shellfish/oyster restoration & habitat restoration/enhancement work; allow for management of brood stock.

RI DEM OWR Shellfishing Status:

Classified as Prohibited.

Initiation of the Shellfish Management Area established a zero bushel possession limit.

If/when portions of the waters are approved for shellfishing, what should the management strategy be for the PR SMA?

3. Preliminary Discussions on Shellfish Management in the Providence River Shellfish Management Area (PR SMA)

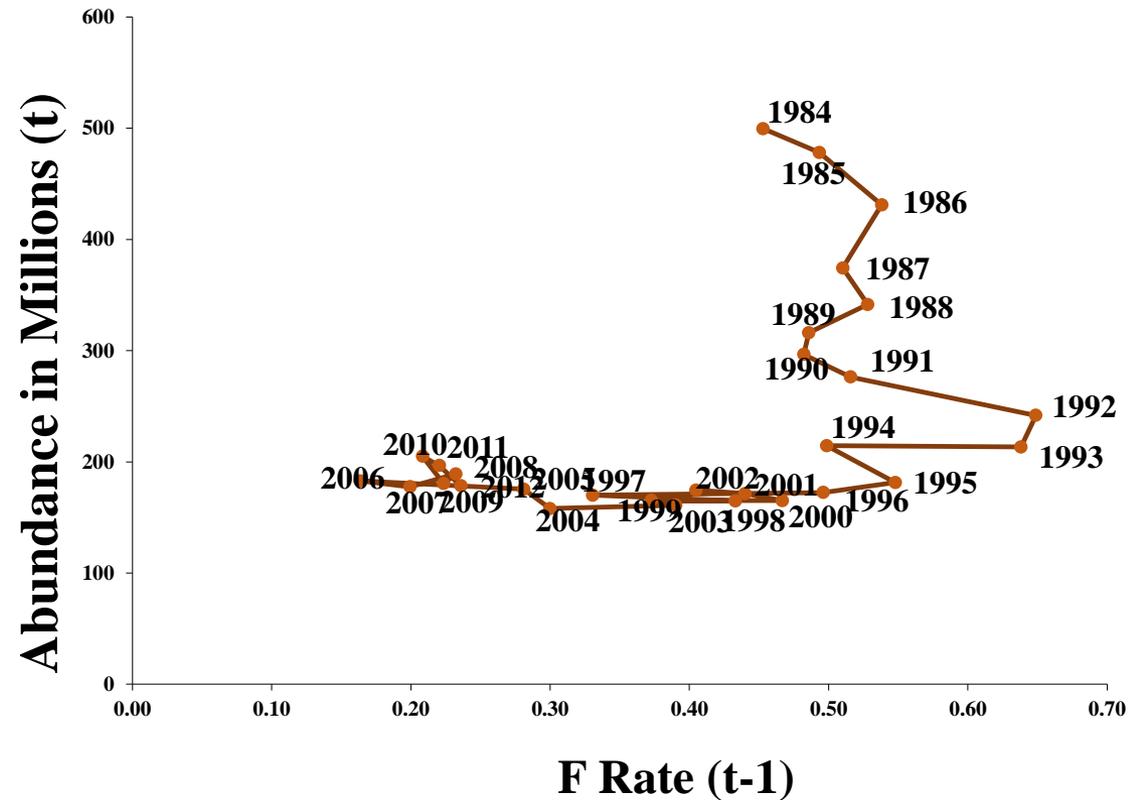
Biological data and research to be evaluated/conducted prior to establishing a management plan for the PR SMA:

- A. Revamp the current quahog assessment with more sophisticated frame work.
- B. Evaluate the significance of the PR SMA quahogs in supporting larvae and recruits for the rest of Narragansett Bay
- C. Evaluate 2017 abundance and size distribution data in the PR SMA using the RI DEM Dredge Survey.
- D. Assess and utilize data and information from the quahog study fleet to update data for the stock assessment.

3a. Revamp the current quahog assessment with more sophisticated frame work.

Gibson (2010) – Size-structured population model

- Uses landings by market class
- Similar to biomass-dynamics model framework



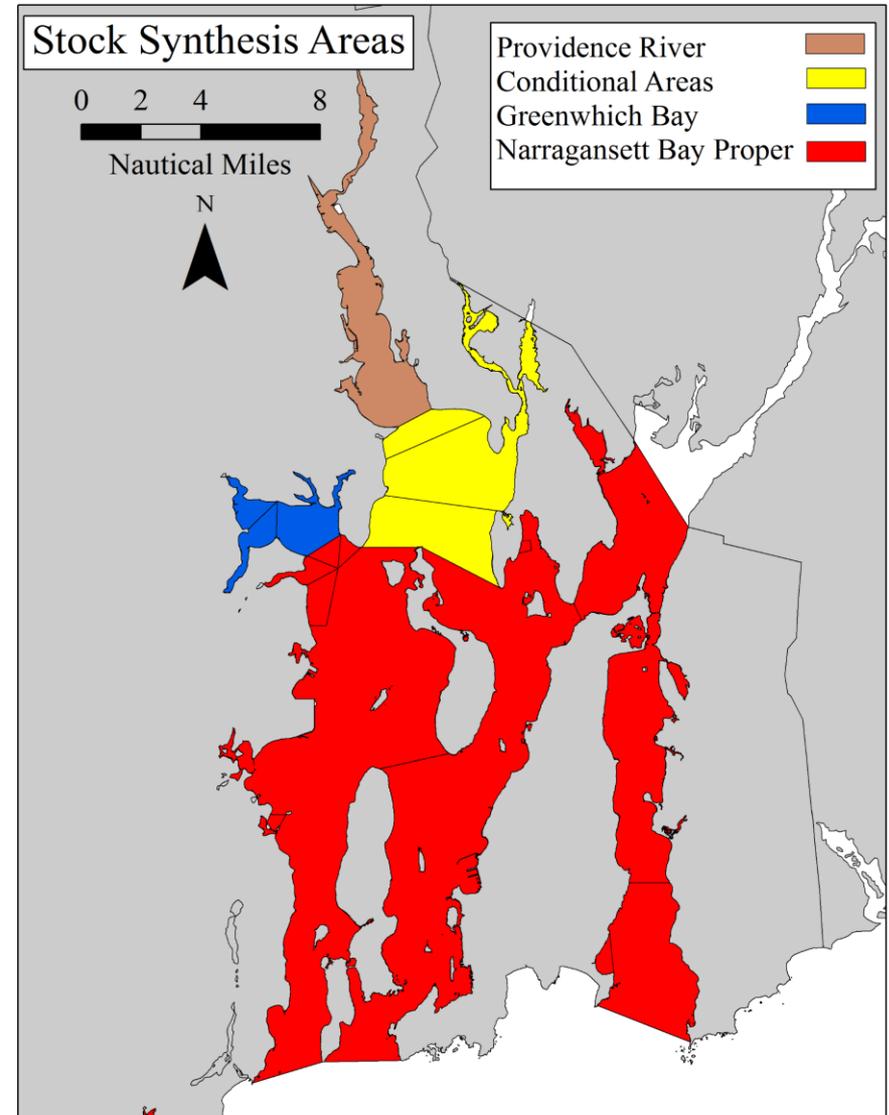
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Stock Synthesis

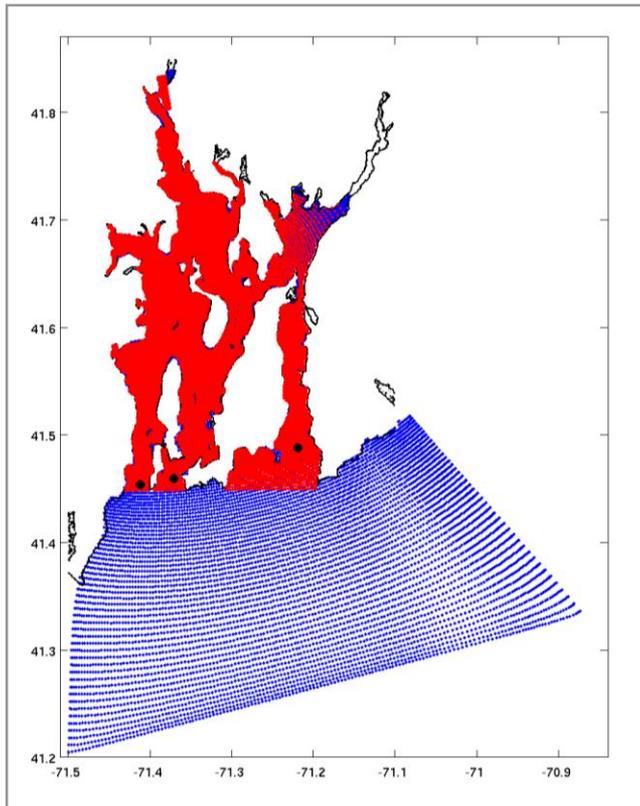
- Statistical age or market-structured population modeling framework
- Uses more sophisticated statistics in model predictions
- Can incorporate time series of varying sources and frequencies simultaneously
- Spatial framework to allow distinct units across the Bay (e.g. tagging areas)



3b. Evaluate the significance of the PR SMA quahogs in supporting larvae and recruits for the rest of the Bay

Quahog Larval Transport: Recruitment Proxy for Areas?

ROMS



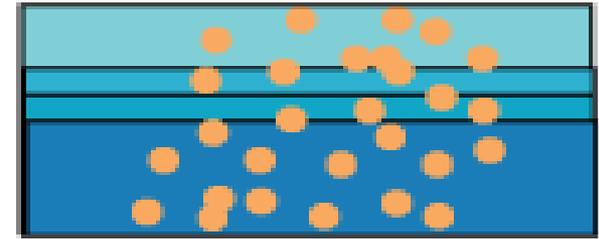
Larval TRANSport (LTRANS)

Swimming Direction (z)

Velocities (x,y,z)

Release Time and Location (x,y,z,t)

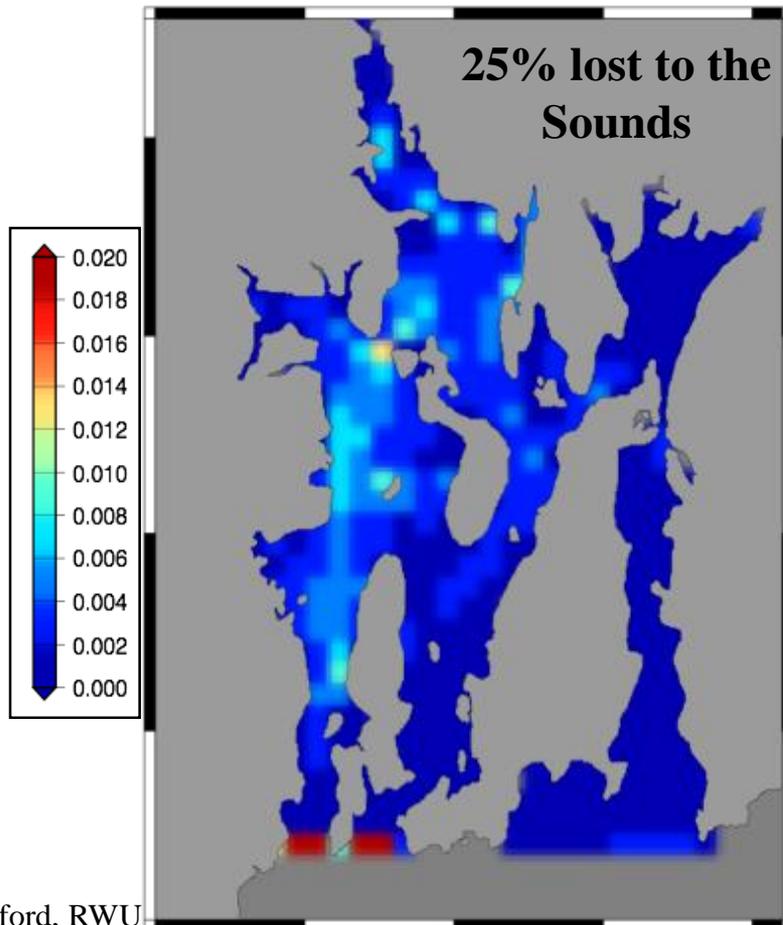
Swimming Speed



3b. Evaluate the significance of the PR SMA quahogs in supporting larvae and recruits for the rest of the Bay

Quahog Larval Transport: Recruitment Proxy for Areas?

Ex: 'Larvae spawned' from Conditional B



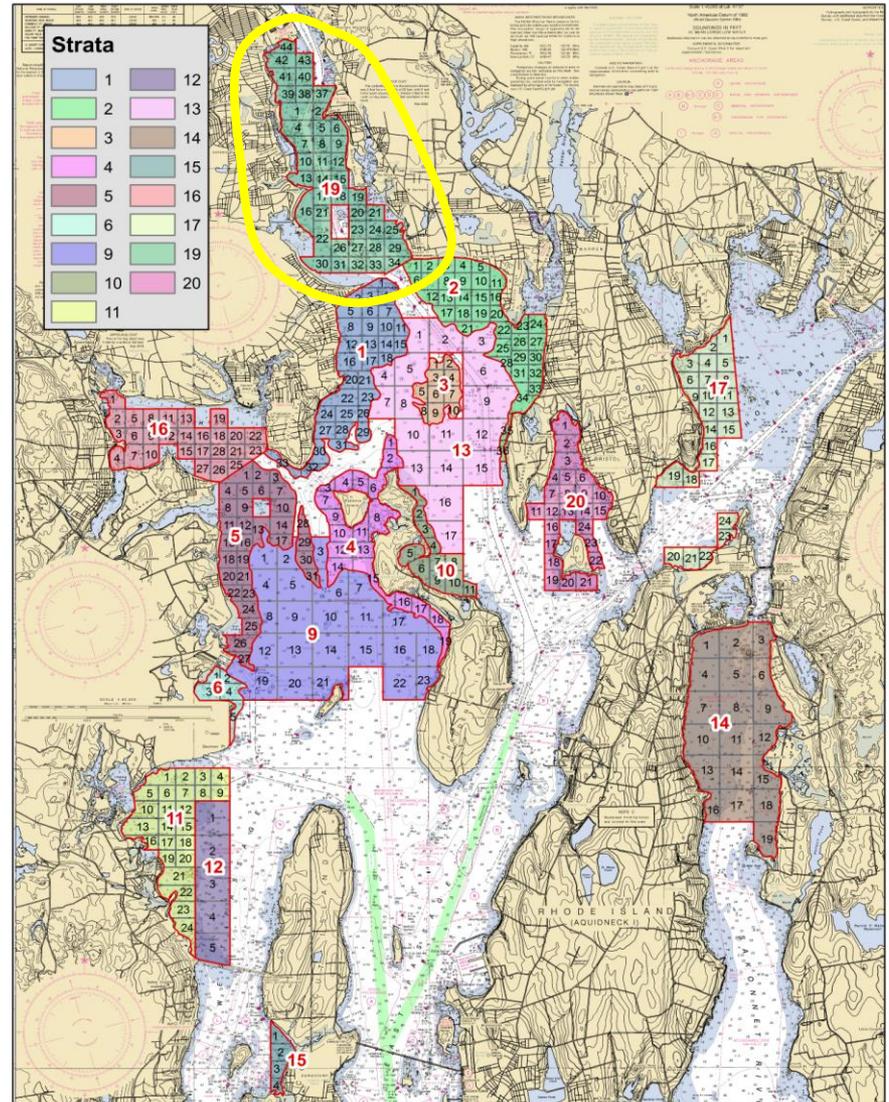
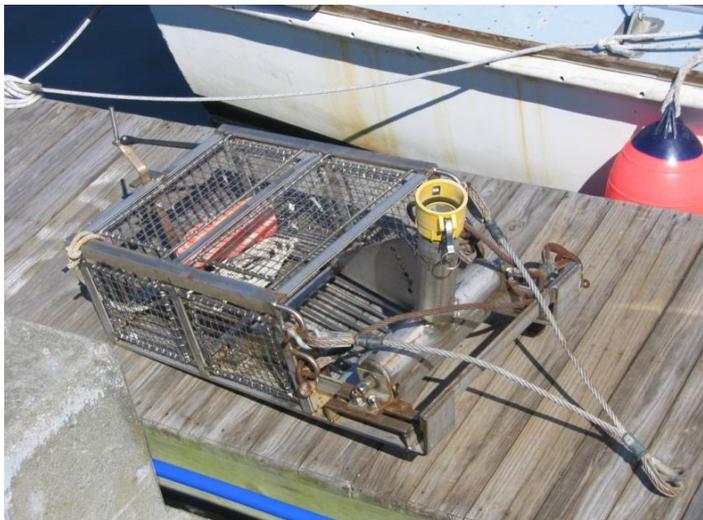
Understand population connectivity between areas through larval sources/sinks.

Do certain areas (e.g. closed areas) support population bay-wide?

3c. Evaluate 2017 abundance and size distribution data in the PR SMA using the RI DEM Dredge Survey.

RI DEM Quahog Dredge Survey 1993-2016

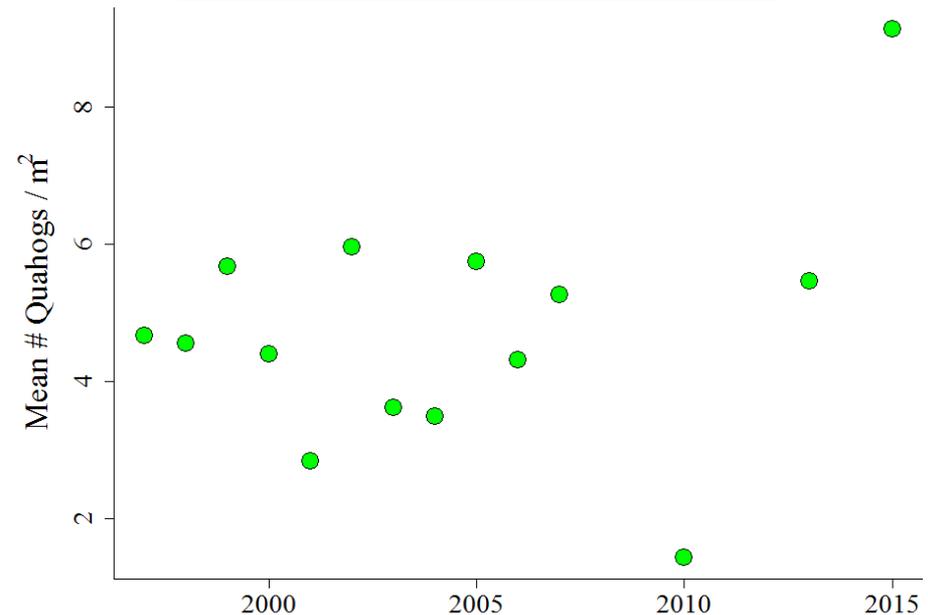
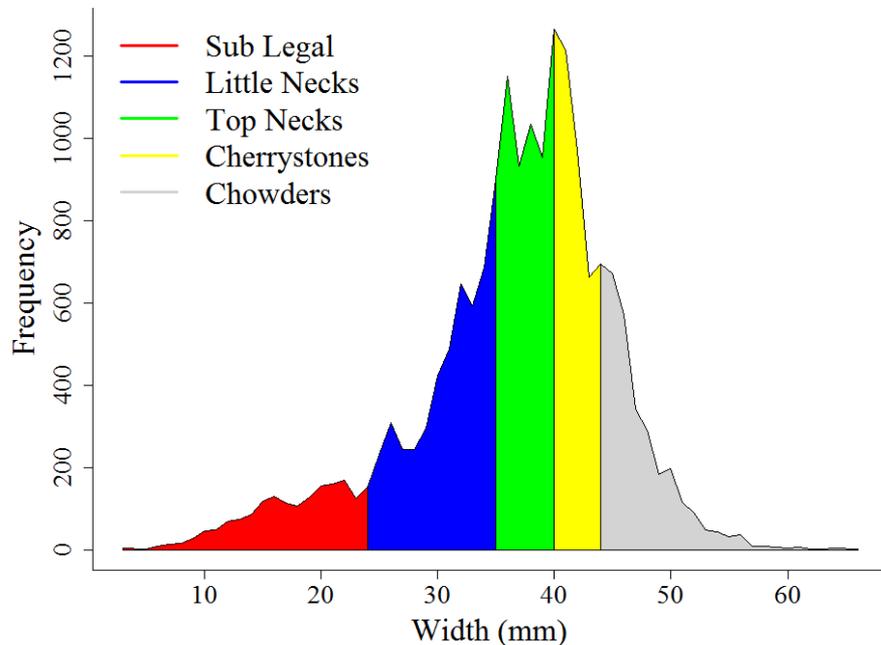
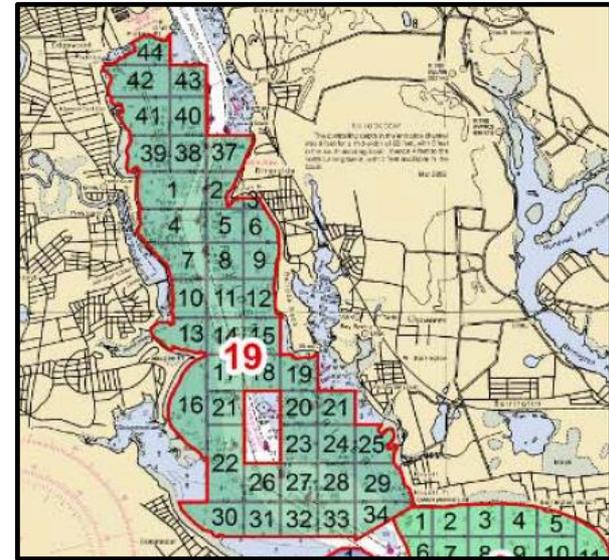
- Use hydraulic dredge to sample legal population
- Sampling at discrete stations in northern NB



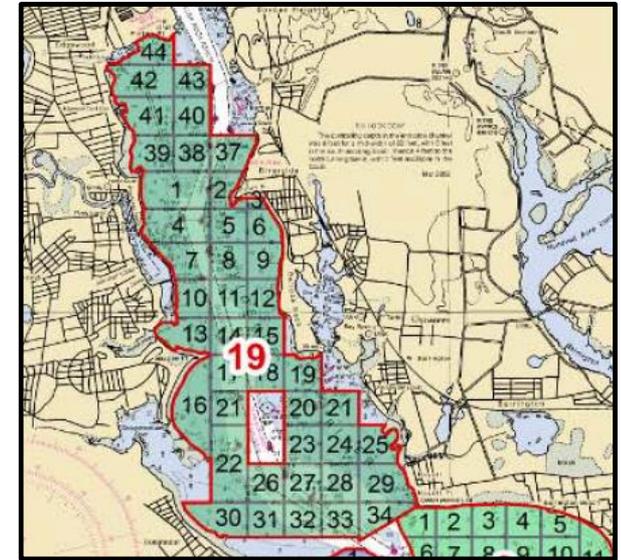
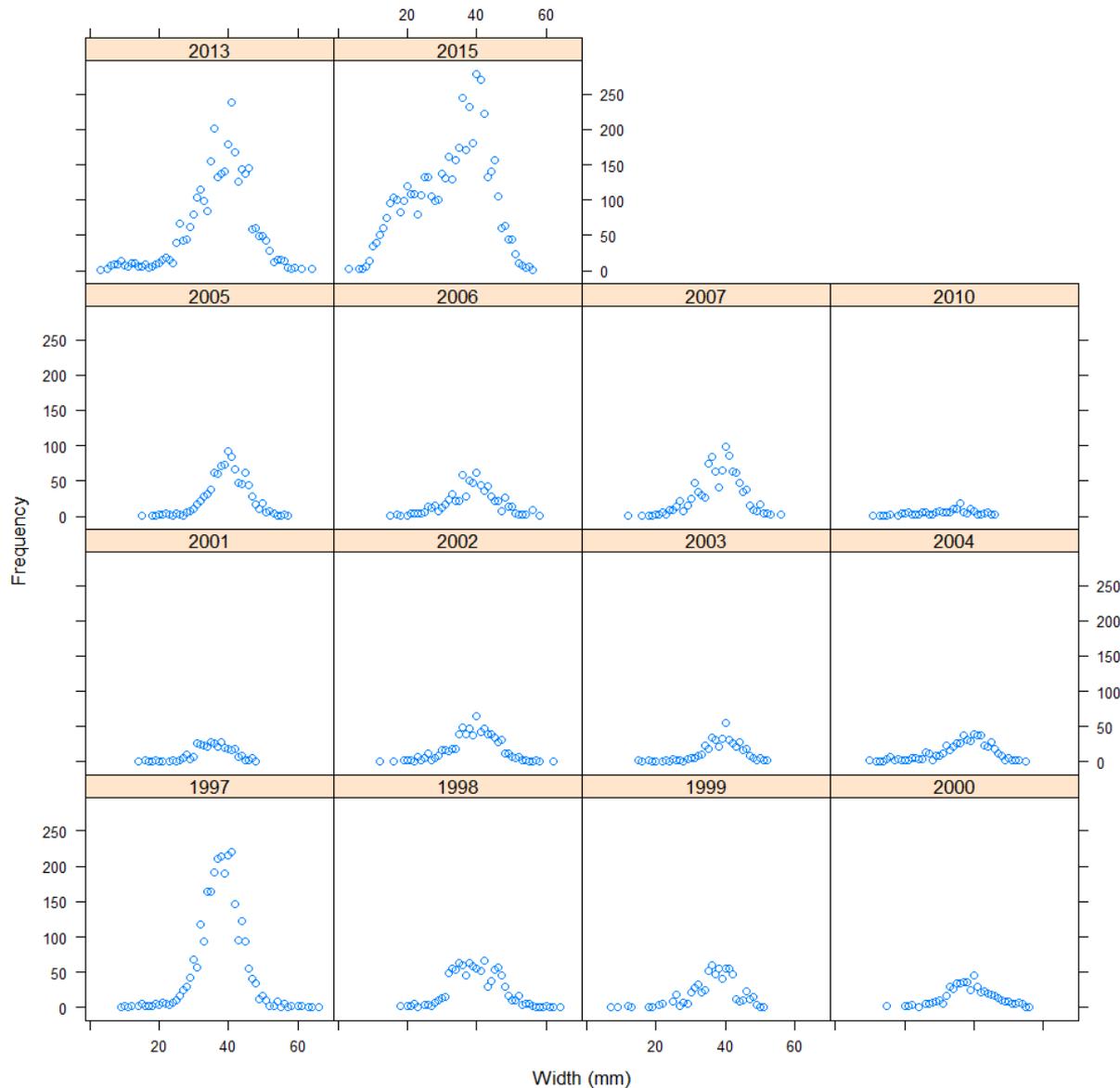
3c. Evaluate 2017 abundance and size distribution data in the PR SMA using the RI DEM Dredge Survey.

Evaluate changes in abundance and size distribution through time.

How does 2017 differ from other years?



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Evaluate changes in abundance and size distribution through time.

How does 2017 differ from other years?

3d. Assess and utilize data and information from the quahog study fleet to update data for the stock assessment

CFRF, RWU, DEM, RISA

Industry fleet sampling quahogs during harvest

- Tablet system measures transect length for abundance estimates
- Market class information
- Covariates to understand drivers in abundance
- Stations both sampled by the DEM Dredge survey and chosen by fishermen



3d. Assess and utilize data and information from the quahog study fleet to update data for the stock assessment

CFRF, RWU, DEM, RISA

Calibration

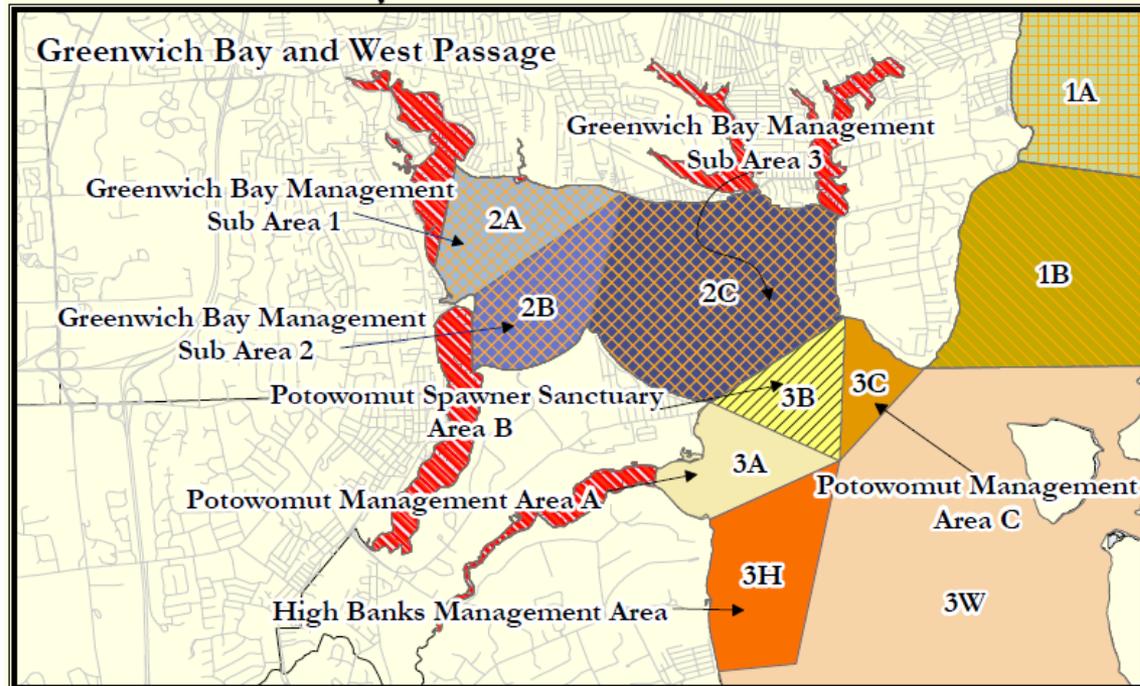
Compare efficiency of surveying methods across different substrates

- DEM Dredge
- Bullrake
- Quadrats on SCUBA

Information will be used to standardize dredge survey data to reduce catchability concerns



4a. Discussions on Winter Harvest Schedule for Shellfish Management Areas: Greenwich Bay Areas 1 and 2



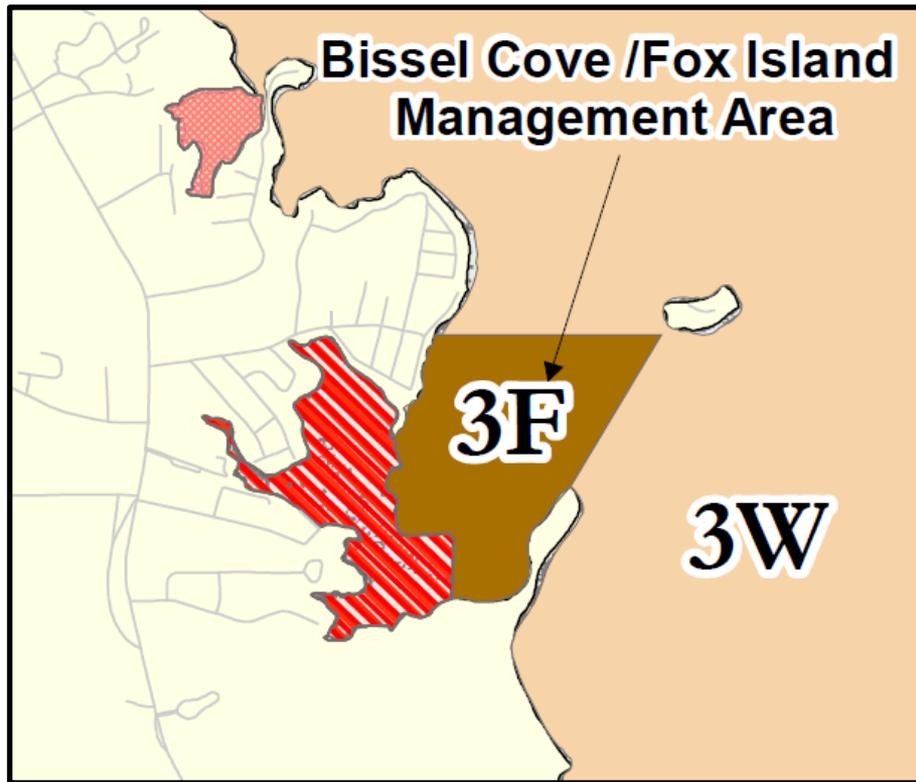
Provisions for Proposal

The schedule for the month of December may include up to 48 hours of permitted shellfishing, spread over any number of days during the month, excluding December 25.

Default

Open 8:00A.M. to 12:00P.M. noon on Mondays, Wednesdays, and Fridays, beginning on the second Wednesday of December and continuing through the last Friday in April, excluding December 25 and January 1 annually.

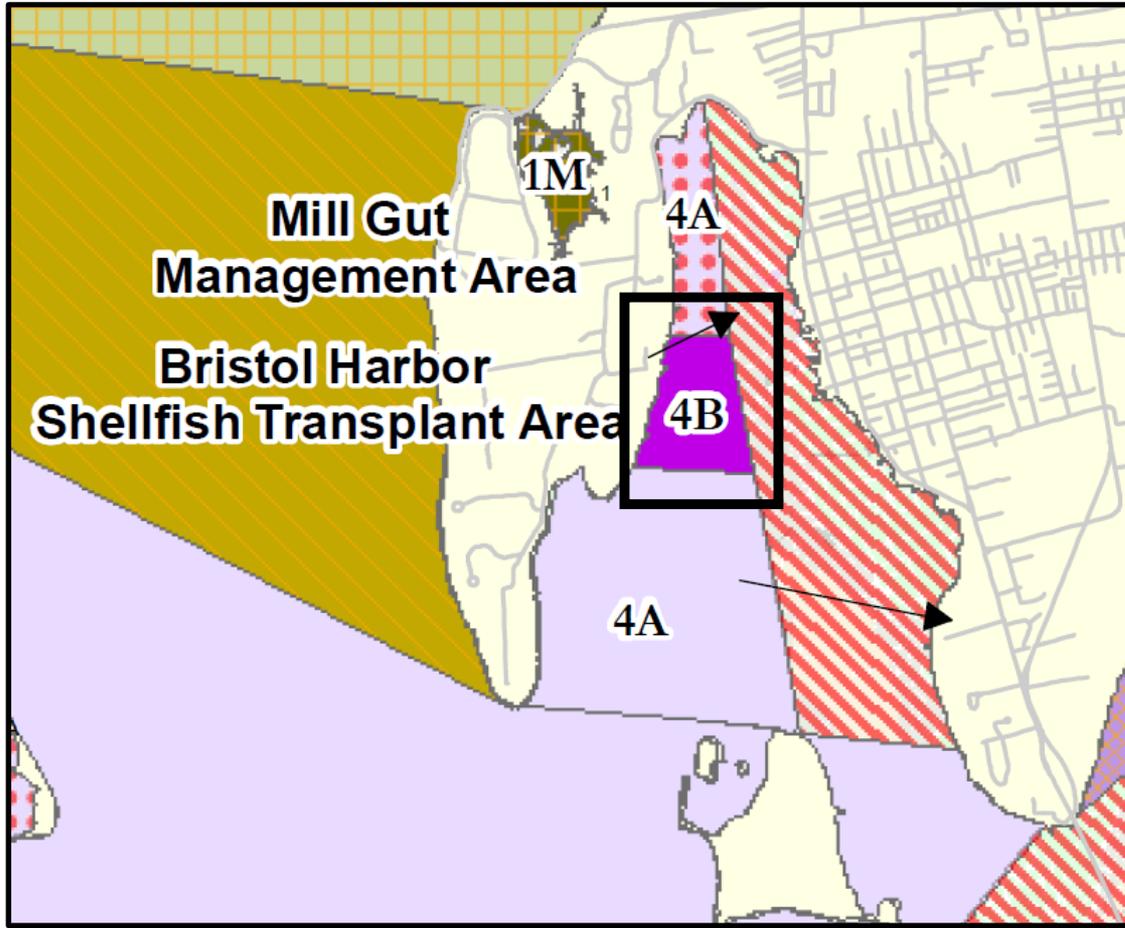
4b. Discussions on Winter Harvest Schedule for Shellfish Management Areas: Bissel Cove



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Open 8:00A.M. to 12:00P.M. noon on Mondays, Wednesdays, and Fridays, beginning on the second Wednesday of December and continuing through the end of April, excluding December 25 and January 1 annually.

4c. Discussions on Winter Harvest Schedule for Shellfish Management Areas: Bristol Harbor



Default

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