

# Habitat Advisory Panel

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**Habitat Advisory Panel**  
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**Via Webinar**



# 2022 Habitat Work Priorities

- **Southern New England Habitat Area of Particular Concern** – Council initiated action in February and reviewed alternatives in April; final action planned for June
- **Offshore wind engagement** – Council staff are working with NOAA staff on habitat monitoring recommendations; have been responding to comment opportunities – this will continue
- **Northeast Regional Habitat Assessment** – 3-yr project ends in July; presenting results to Council in June; developing a project-specific results portal and will partner with regional portals to share spatial data; formal product roll out likely this summer or early fall
- **Atlantic salmon framework** – update on timing/next steps at June Council meeting; consider initiating a framework in September
- Not a 2022 priority but discussed in February - **Great South Channel HMA and clam exemptions** – anticipate final report on EFP-based research project on June 10, will discuss during August/September Committee/Council meetings

# Essential Fish Habitat Consultations

- All federal agencies must go through EFH consultation process with NOAA Fisheries when a publicly funded action is determined to adversely affect EFH
  - Identifies measures to avoid, reduce, or compensate for direct and indirect adverse impacts to fish habitat (physically, chemically, or biologically)
  - Fishing and non-fishing activities
  - Non-binding conservation recommendations
  - NOAA considers EFH as well as HAPC designations

# Consultation process

1. Action agency notifies NOAA of project; pre-consultation discussions occur
2. Agency submits an EFH assessment
3. NOAA reviews EFH assessment for completeness
4. If incomplete, NOAA requests additional information
5. Once deemed complete, NOAA provides the conservation recommendations to the action agency within 30 days (regular) or 60 days (expanded)
6. Action agency responds to NOAA within 30 days for how agency will proceed

# Example recent EFH Consultations with Council Involvement

- Amitie fiber optic submarine cable installation project – expanded EFH consultation
  - Concerned about cable route intersecting with hard/complex habitat and EFH incl. Within overlapping W. Gulf of Maine Closure Area, Habitat Closure Area, and Stellwagen Dedicated Habitat Research Area
- Early conversations about
  - Running Tide aquaculture project – planning to grow kelp on 30 vertical lines potentially on NW part of Fippennies Ledge, which is a habitat closure
  - Blue Water Fisheries aquaculture project – net pens for steelhead, salmon

# HAPC in Southern New England

- Habitat Areas of Particular Concern are a subset of essential fish habitat (EFH), designated based on 1+ of the following criteria:
  - (1) Important ecological functions, (2) sensitivity to anthropogenic stresses, (3) extent of current/future stresses, (4) rarity of the habitat type
- Generally, HAPCs support NOAA's essential fish habitat consultations
  - Federal agencies consult with NOAA Fisheries on impacts of their actions on EFH & HAPCs
  - HAPCs emphasize importance of specific locations and habitat features
  - HAPCs strengthen basis for habitat conservation recommendations to avoid, minimize, mitigate impacts
- Here, concerns about impacts of wind energy and other development on EFH
  - Benthic, water column habitats; areas used for spawning, juvenile settlement
  - Effects of construction activities and operations

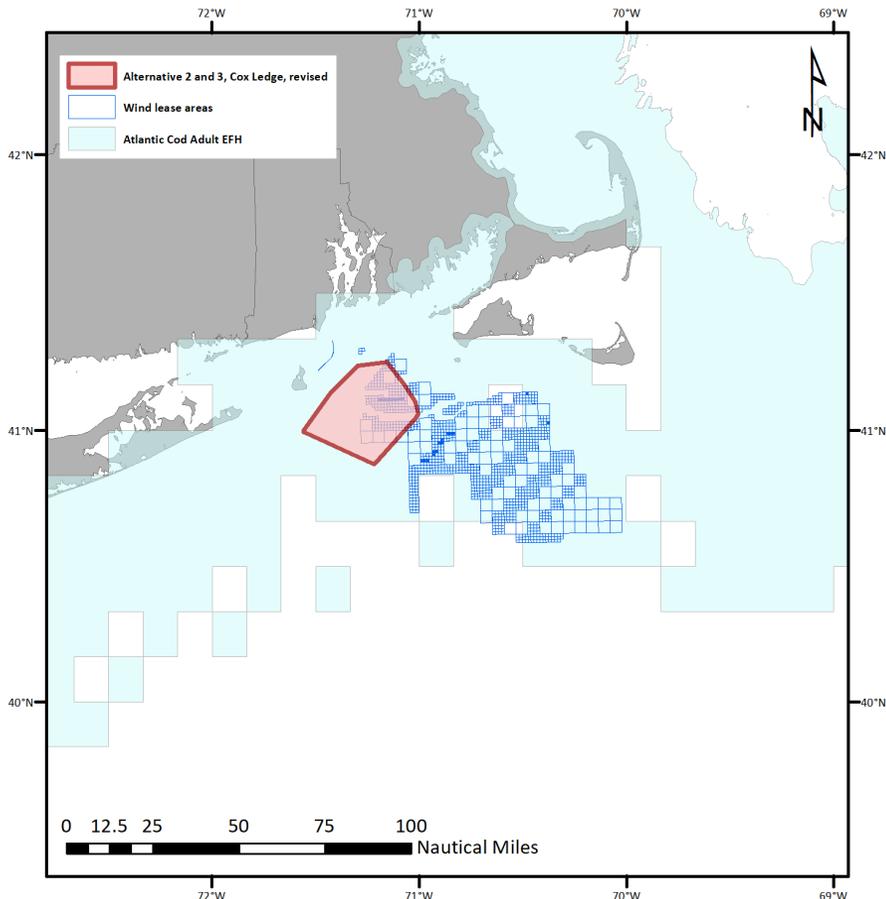
# HAPCs vs. Habitat Management Areas

- HAPCs are non-regulatory; no restrictions on fishing directly associated with the designation
- Habitat Management Areas have gear-based restrictions on fishing to minimize the adverse effects of fishing on EFH
- In some cases, HMAs and HAPCs overlap spatially
- Future Council action would be required to restrict fishing in any HAPCs, including this one

# Committee, Council recommendations

- Develop and analyze three alternatives
  - Alternative 2: Narrowly focused cod spawning HAPC encompassing active spawning sites around Cox Ledge
  - Alternative 3: Broader cod spawning HAPC encompassing Cox Ledge, Nantucket Shoals, and any spawning sites identified in the future based on new data
  - Alternative 4: Broad HAPC in S. New England for multiple NEFMC species that use complex habitats
- No preferred alternative recommended during April Council meeting
- Council should take final action at June meeting
  - EFH consultation work is already beginning for multiple projects in region (Environmental Impact Statements under development)

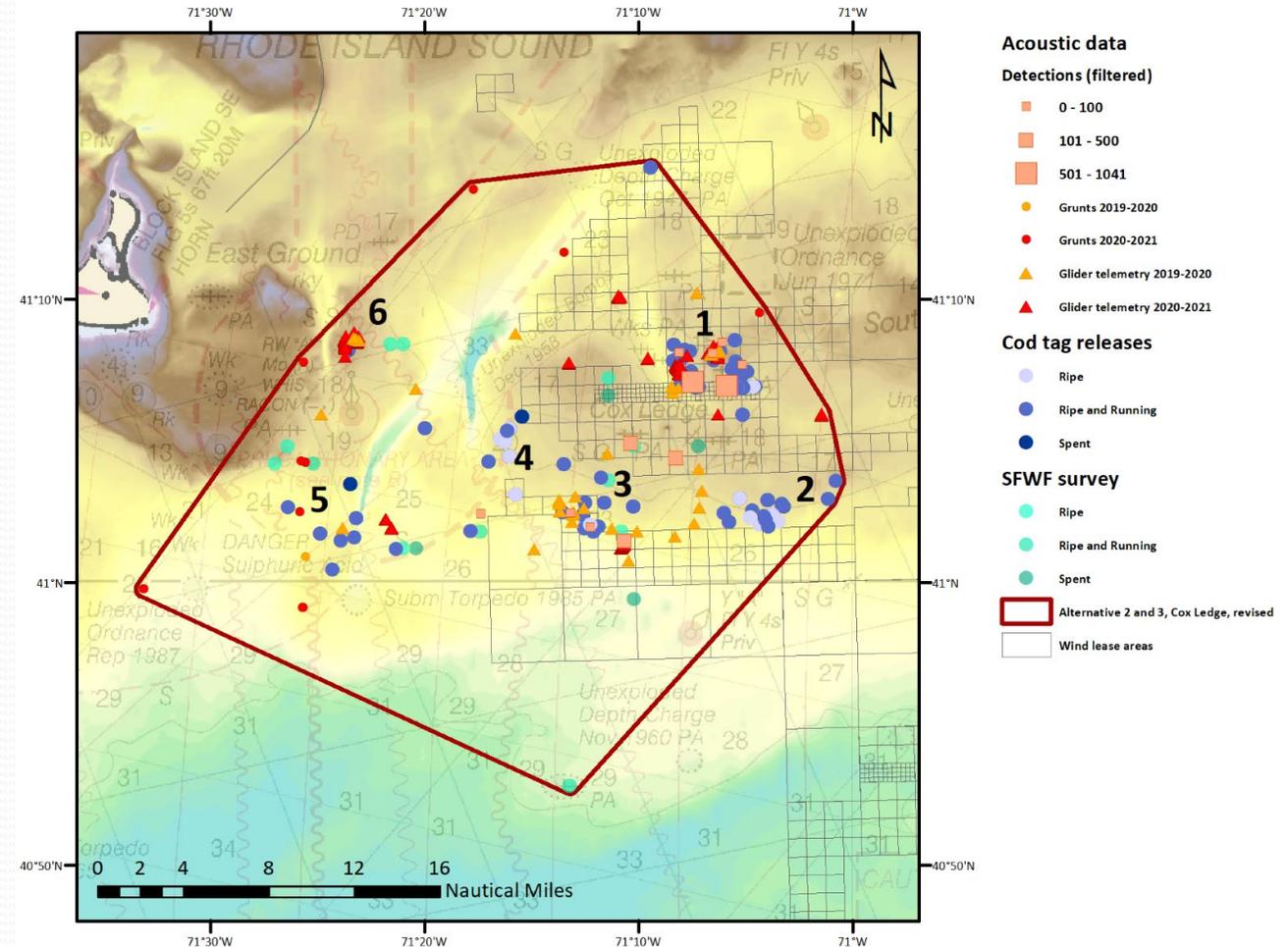
# Alternative 2 – Cox Ledge



- This alternative would designate an area representing the intersection of adult Atlantic cod EFH and currently active cod spawning grounds on and surrounding Cox Ledge as a Habitat Area of Particular Concern (red area at left).
- Entire HAPC area is a cod spawning ground
- Within HAPC, discrete locations of high cod spawning activity are identified --> NOAA could deem these discrete areas as a higher priority during EFH consultation

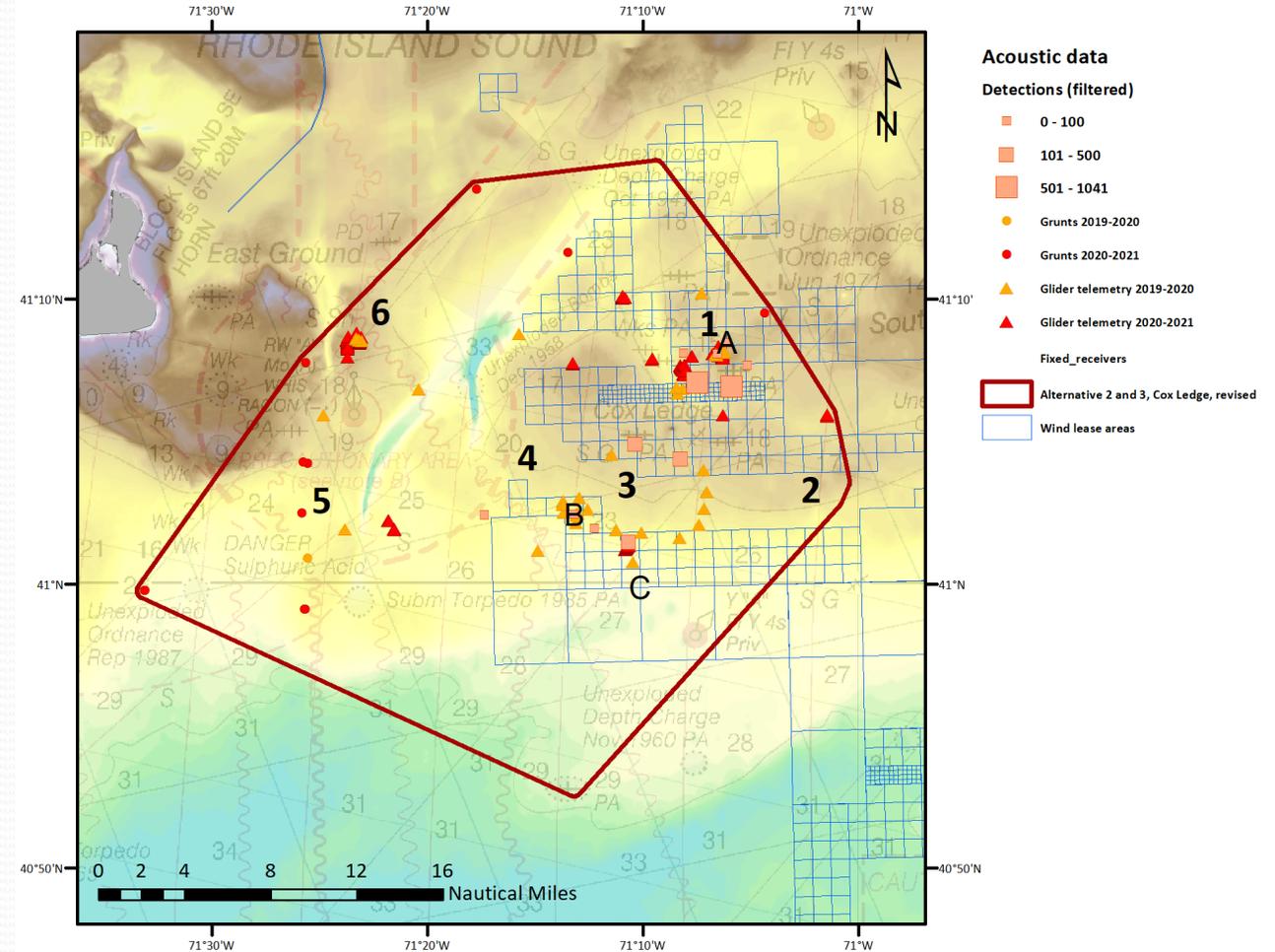
# Supporting Info

- Acoustic research: Positive detections of cod mating sounds (grunts) and detections of tagged adult cod in recent acoustic surveys
- Traditional tagging: Release locations of tagged cod in ripe, running, or spent condition
- Spawning survey: Catches of ripe, running, or spent cod



# Acoustic research

- Data shown are from 2019-20 and 2020-21; from gliders and fixed receivers. Study is ongoing.
- Temporal extent of spawning season is well understood. Grunts most prevalent November to January (grunt rate signals increase in spawning activity)
- Full spatial extent of spawning site is less well understood; acoustic detection range is short, so fish/grunts outside sampling area could be missed

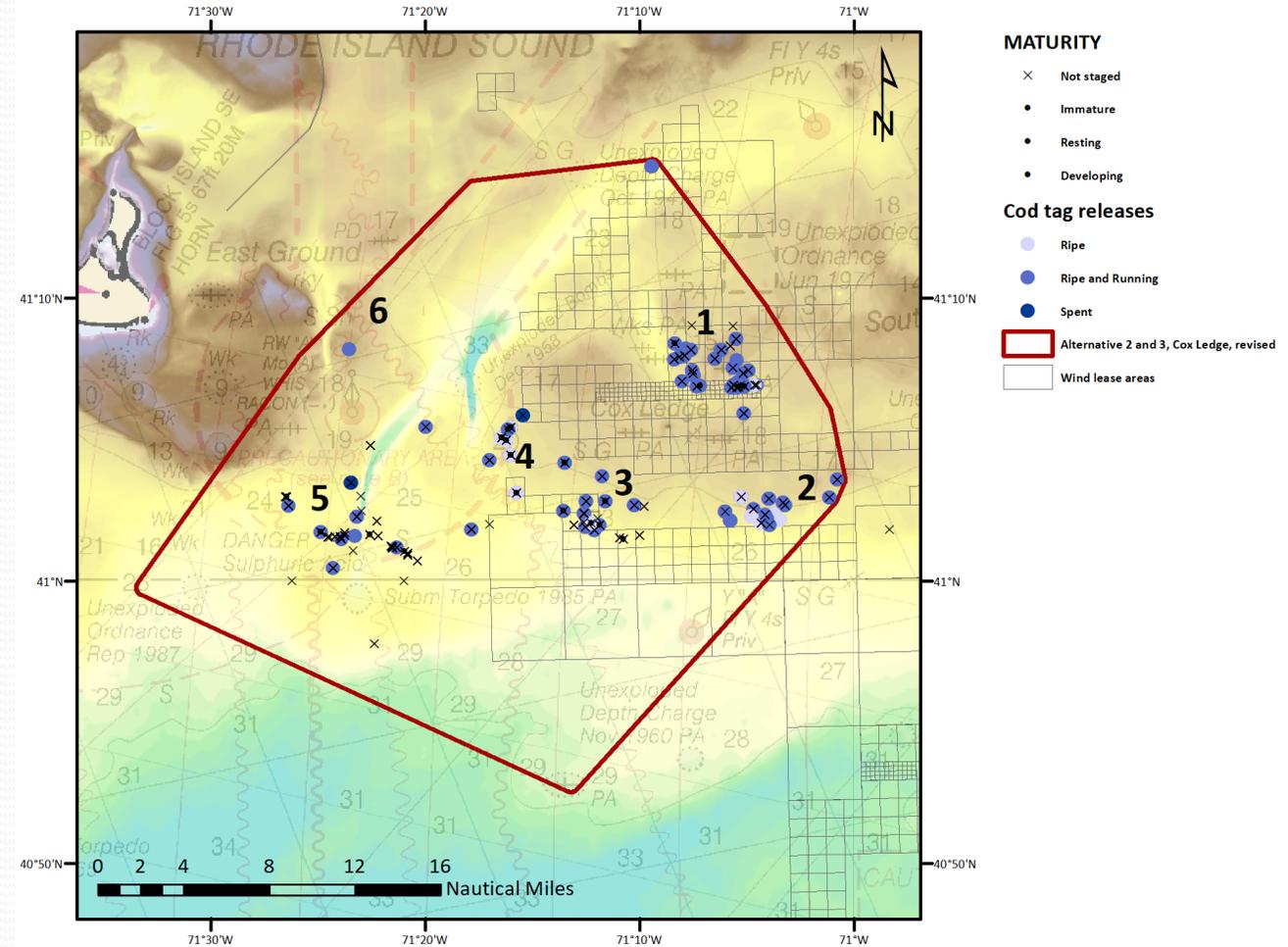


VanParijs, S. Mapping the distribution of habitat use of a soniferous fish on Cox's ledge, with a focus on Atlantic cod spawning aggregations. Presentation to NEFMC Habitat PDT, March 9, 2022.

VanHoeck, R. V., T. J. Rowell, M. J. Dean, A. N. Rice, S. M. VanParijs (In review). Comparing Atlantic cod temporal spawning dynamics across a biogeographic boundary: Insights from passive acoustic monitoring.

# Traditional tagging

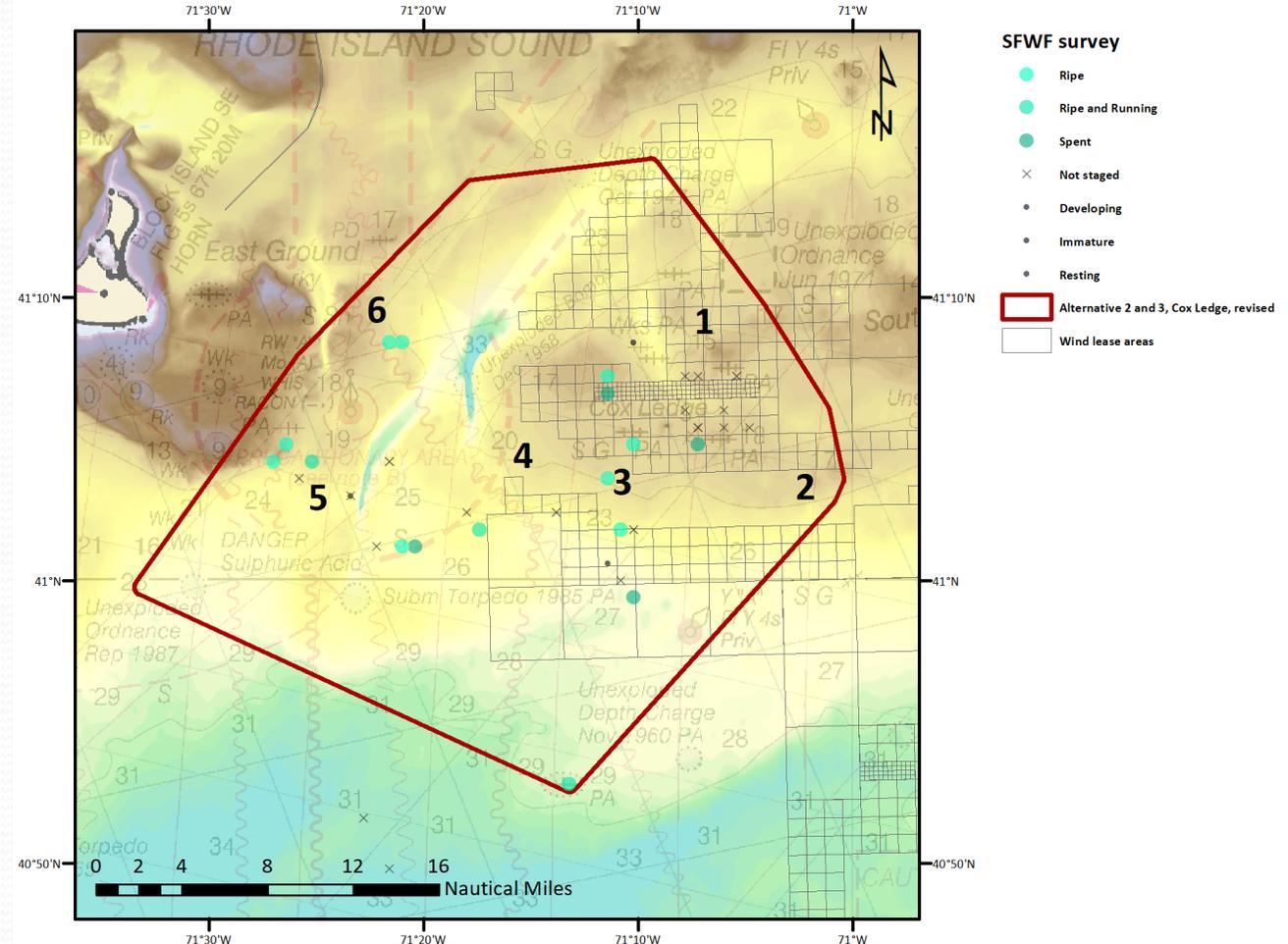
- Fish were tagged and released during the spawning season, between 2007-2011
- Some fish were cannulated and staged; release locations of fish in ripe, ripe and running, or spent condition shown in blue
- Release locations often represent multiple individual fish



Dean, M. J., G. R. DeCelles, D. R. Zemeckis and T. Ames (In review). Chapter 3. Early Life History Spawning to Settlement. In RS McBride & RK Smedbol (Eds) An Interdisciplinary Review of Atlantic Cod (*Gadus morhua*) Stock Structure in the Western North Atlantic Ocean. NOAA Technical Memorandum NMFS-NE.

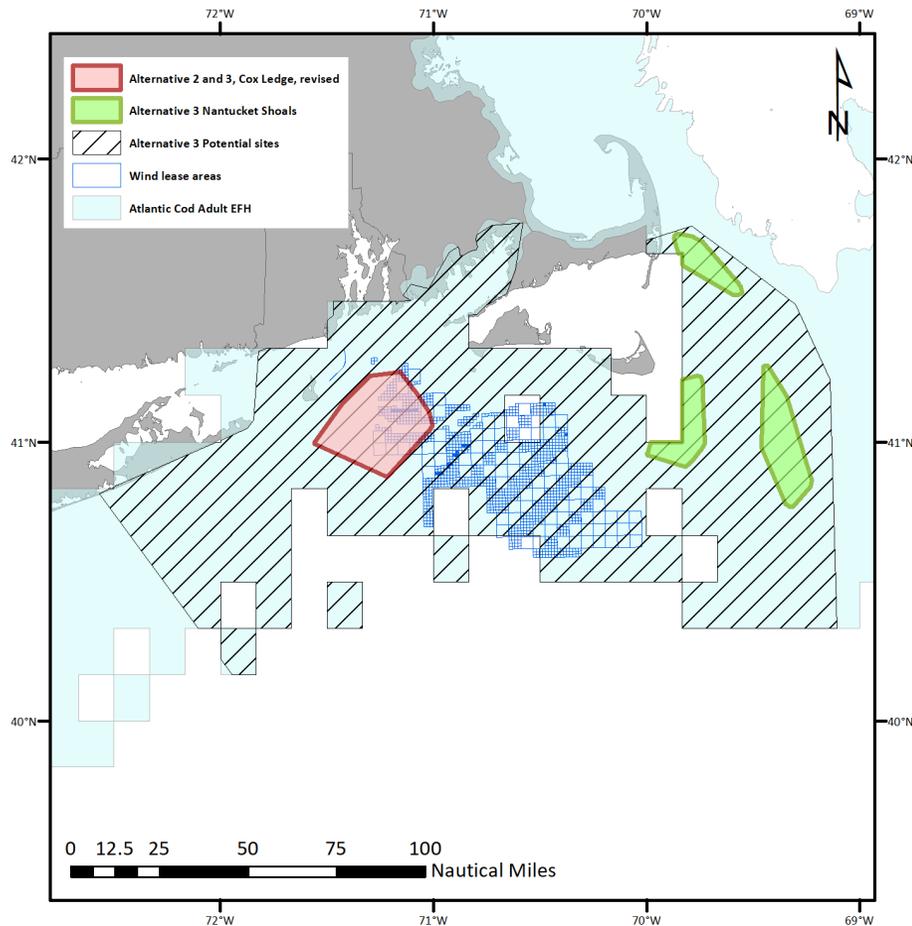
# Spawning survey

- Cod spawning survey for South Fork Wind Farm
- Winter seasons 2018, 2018-2019



Balouskus, R., Gervelis, B. and D. Carey (2019). South Fork Wind Farm Reconnaissance Atlantic Cod Spawning Survey January-April 2018 Final Report.  
Gervelis, B. and D. Carey (2020). South Fork Wind Farm Observational Atlantic Cod Spawning Survey December 2018-April 2019 Final Report.

# Alternative 3

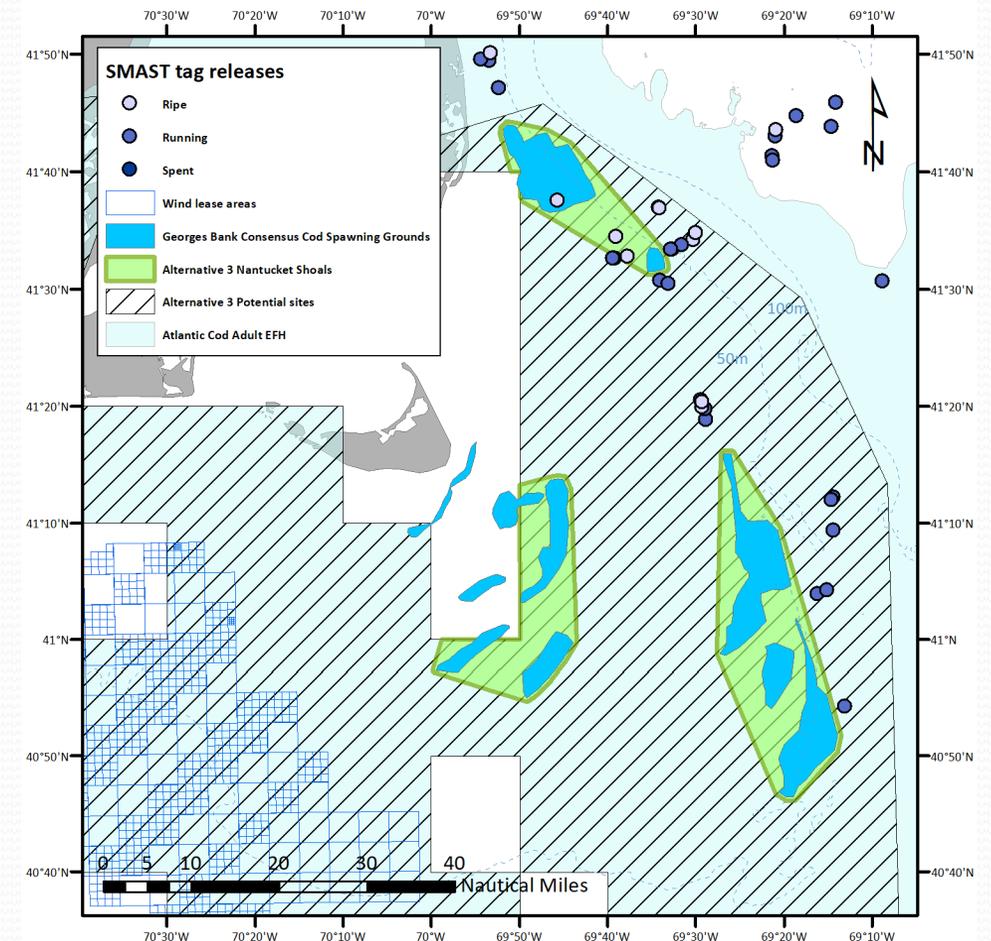


This alternative would designate an area representing the intersection of Adult cod EFH with (1) areas on and around Cox Ledge where cod are currently spawning (red), (2) areas on Nantucket Shoals where there is historical evidence of spawning (green), and (3) any future cod spawning areas identified in Southern New England (hatched) as Habitat Areas of Particular Concern.

For the purpose of applying the HAPC designation in the hatched area, evidence of cod spawning activity at a site could come from detection of cod grunts, detections of tagged spawners, catches of cod in spawning condition, or detection of early life history stages (eggs, larvae).

# Information to support Nantucket Shoals sites

- Consensus spawning grounds
  - Fishermen's ecological knowledge, trawl surveys (US and Canada), Canadian observer program data, ichthyoplankton sampling, and the marine resource monitoring and assessment program data
- Tag releases of fish in spawning conditions



DeCelles, G. R., D. Martins, D. R. Zemeckis, T. Ames and S. X. Cadrin (2016). Mapping the Distribution of Atlantic Cod Spawning on Georges Bank Using Fishermen's Ecological Knowledge and Scientific Data: 129.

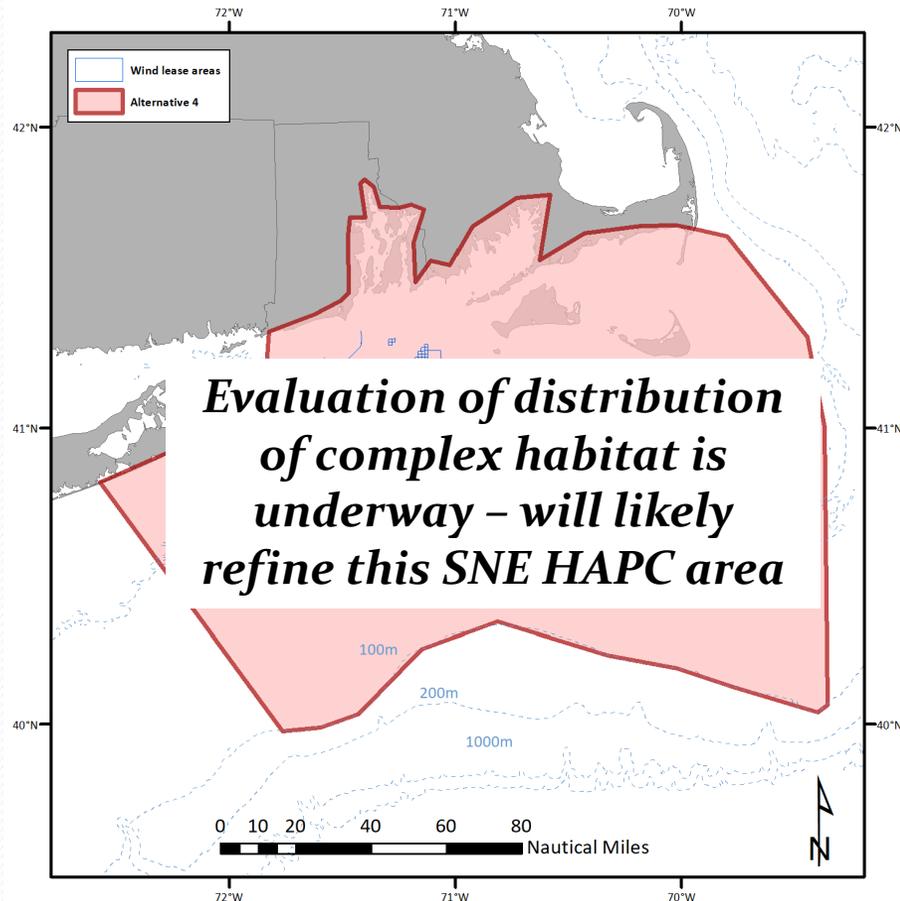
DeCelles, G. R., D. Martins, D. R. Zemeckis and S. X. Cadrin (2017). "Using Fishermen's Ecological Knowledge to map Atlantic cod spawning grounds on Georges Bank." *ICES Journal of Marine Science* 74(6): 1587-1601.

# Alternative 4

Alternative 4 would designate all areas in Southern New England with complex habitats as HAPC. Would apply within EFH with complex habitats for:

- Atlantic cod juveniles, adults
- Atlantic herring eggs
- Sea scallop eggs, juveniles, adults
- Little skate juveniles, adults
- Monkfish juveniles, adults
- Ocean pout eggs, juveniles, adults
- Red hake juveniles, adults
- Winter flounder eggs, juveniles, adults
- Winter skate juveniles, adults

*Note: Mid-Atlantic species not included.*



# Alternative 4 supporting information

## *Still under development*

- Complex habitat important for shelter during early life history, refuge from predators, feeding opportunities for juveniles
- 5 out of the 9 stocks are overfished; several species had high occurrence of habitat use within the wind area relative to their occurrence shelf-wide
- Impacts from offshore development on fishes, habitats:
  - Acoustics, physical habitat conversion and losses, scour and sedimentation, reef effects, hydrodynamic effects, water entrainment, electromagnetic field
- Impact mitigation approaches:
  - Avoid construction in spawning grounds / complex habitat, monitoring plan for species of concern incl. passive acoustic monitoring, time of year restrictions on construction, noise dampening tech., etc.

# Comparison chart/impacts on fishery resources

Alternative	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4
<b>Description</b>	No new HAPCs	A cod spawning HAPC around Cox Ledge	A cod spawning HAPC around Cox Ledge, Nantucket Shoals, and at other sites as determined by future data	A regional HAPC for several NEFMC species with complex habitat in SNE
<b>Positive impacts</b>	None	<ul style="list-style-type: none"> <li>- Protects spawning areas if CRs adopted</li> <li>- Indirect benefits to other species/EFH</li> <li>- Focused on specific habitat function</li> <li>- Emphasizes need for additional data</li> </ul>	<ul style="list-style-type: none"> <li>- As for Alt 2</li> <li>- Proactive approach where spawning is not yet clearly documented</li> </ul>	<ul style="list-style-type: none"> <li>- Comprehensive, allows for accounting of multiple species and development effects</li> </ul>
<b>Negative impacts</b>	None	<ul style="list-style-type: none"> <li>- No designation for historical and future identified grounds</li> </ul>	<ul style="list-style-type: none"> <li>- Will require additional data to apply designation to new sites</li> </ul>	<ul style="list-style-type: none"> <li>- Very broad, no specific area of emphasis</li> <li>- Does not emphasize targeted data collection</li> </ul>

# Process and next steps

- For today, the Advisory Panel may
  - Recommend either Alternative 2 or 3, or No Action
  - Recommend either Alternative 4, or No Action
- Committee will discuss June 10, Council action late June
- Staff/PDT will complete document and submit
  - Expect to qualify for a Categorical Exclusion under NEPA
- NOAA Fisheries will review, and once any required edits are completed, will publish a notice of the FMP changes and seek public comment
- No rulemaking for HAPCs, so will go into effect upon final approval by GARFO

# Atlantic Salmon Aquaculture

- Update from Chris Schillaci
  - Blue Water Fisheries project – scope, timing, next steps

# Questions, Other business