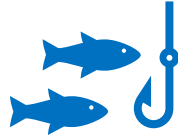


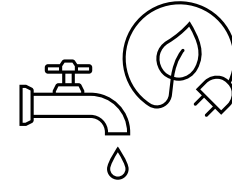
SCIENCE ADVISORY COUNCIL: WORKING GROUP FINDINGS, PART 3

May 14, 2026





AGENDA / OVERVIEW



- Background on the Ocean Management Plan
- Fisheries

OAC AND SAC MEMBERSHIP

Ocean Science Advisory Council

Academic Institutions

Kevin Stokesbury	UMass Dartmouth, SMAST*
John Duff	UMass Boston, School for the Environment*
Kristin Uiterwyk	UMass Boston, Urban Harbors Institute

Private, Nonprofit Organizations

Jon Grabowski	MA Fishermen's Partnership*
Priscilla Brooks	Conservation Law Foundation
Jessica Redfern	New England Aquarium

Government Agencies

Mark Rousseau	MA DMF*
Todd Callaghan	MA CZM
Laura Brothers	USGS

*organizations named in statute

Ocean Advisory Commission

Legislators

Sen. Julian Cyr
Sen. Dylan Fernandes
Sen. Bruce Tarr
Rep. Patrick Kearney
Rep. Joan Meschino
Rep. Ken Sweeney

Agency Representatives

Alison Brizius	CZM Director
Dan McKiernan	DMF Director
Tay Evans	MassDEP Commissioner's designee

Stakeholder Representatives

Representative of a commercial fishing organization:

Beth Casoni	MA Lobstermen's Association
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Representative of an environmental organization:

Chris McGuire	The Nature Conservancy
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Expert in the development of offshore renewable energy:

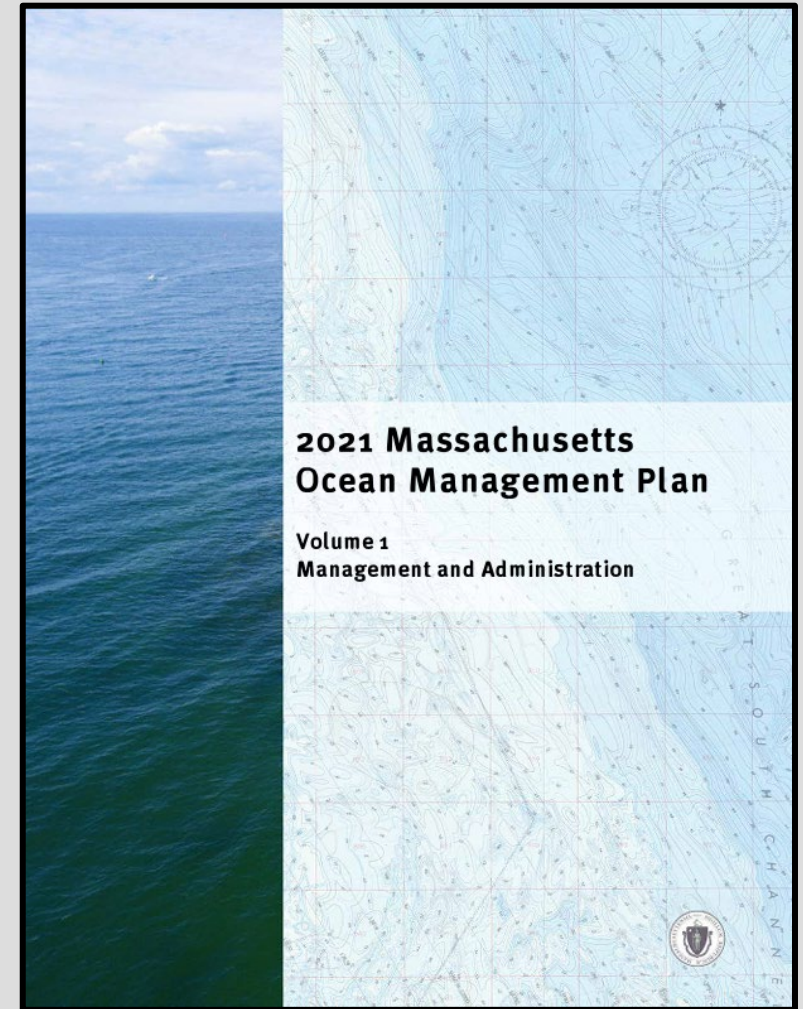
Liz Marsjanik	Vineyard Offshore
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Representatives of six coastal Regional Planning Agencies:

Heather McElroy	CCC*
Daniel Doyle	MVC*
Jeffrey Carlson	NP&EDC*
Jerrard Whitten	MVPC*
Dominick Pangallo	MAPC*
Janice Robbins	SRPEDD*

THE OCEAN MANAGEMENT PLAN

- Plan is reviewed at least once every 5 years
 - Published: 2009, 2015, 2021
- The Plan framework:
 - **Special, Sensitive, or Unique** resources (habitats)
 - **Water Dependent Uses** (e.g., traffic, fishing)
 - **Siting and performance standards** for projects (cables, pipelines, renewable energy, sand mining, others)
- State approvals must be consistent with Plan
 - Determined through MEPA





MASSACHUSETTS OCEAN PLAN JURISDICTION

Ocean Planning Area:

- Defined in Oceans Act of 2008
- 0.3 nautical mile from shore to state/federal boundary
- Does not include harbors, rivers, inlets

Ocean Plan Applicability:

- Project size/impact threshold: MEPA EIR triggers Ocean Plan standards
- Fisheries management is explicitly reserved for DMF

THE OCEAN MANAGEMENT PLAN SITING STANDARDS

Green / SSUs:
Presumptive
Exclusion

Protected Area	Community Scale Wind	Commercial Tidal Energy	Sand & gravel mining	Cables	Pipelines
North Atlantic Right Whale	X	X	X	X	X
Humpback Whale	X		X	X	X
Fin Whale	X		X	X	X
Roseate Terns	X		X		
Special Concern Terns	X				
Sea Ducks	X				
Leach’s Storm Petrel	X				
Colonial Waterbirds	X				
Hard/Complex Seafloor			X	X	X
Eelgrass	X	X	X	X	X
Intertidal Flats	X	X	X	X	X
Important Fish Resource Areas		X	X		X
High Comm. Fishing Effort & Value	X	X	X		X
Recreational Fishing	X	X	X		X
Traffic	X	X			
Fishing Traffic	X	X			
Recreational Boating	X	X			
Fixed Fishing Facilities	X	X	X	X	X

Blue / WDU:
Avoid,
minimize,
mitigate

REVIEW PROCESS: TECHNICAL WORK GROUPS

Transportation &
Navigation



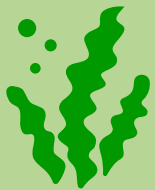
Culture &
Recreation



Ocean Tech &
Innovation



Habitat



Fisheries



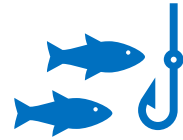
Energy &
Infrastructure



Sediment
& Geology



FISHERIES



Assigned Scope:

- 4 Protected Areas – review data sources and maps:
 - Important Fish Resource Areas (IFRA) SSU
 - High Commercial Fishing Effort and Value (HCFEV) WDU
 - Recreational Fishing WDU
 - Fixed Fishing Facilities WDU
- Consider:
 - Refining IFRA to reflect variability by species, over space and time
 - Refining HCFEV to reflect seasonality and gear type
 - Creating a new Trawl Survey WDU
 - Potential new standards such as defining aquaculture as managed use
- Baseline Assessment: Fisheries chapter (~20 variables)

Member

Micah Dean, group lead

Alex Boeri

Nick Buchan

Tara Dolan

Ben Gahagan

John Logan

Mark Rousseau

Brad Schondelmeier

Steve Wilcox

Affiliation

DMF (Fisheries Biology)

DMF (Shellfish)

DMF (Statistics)

DMF (Groundfish)

DMF (Recreational Fisheries)

DMF (Habitat)

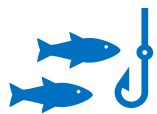
DMF (Habitat)

DMF (Offshore Wind)

DMF (Surveys)



Photo: stock



RECREATIONAL FISHING WDU

Method:

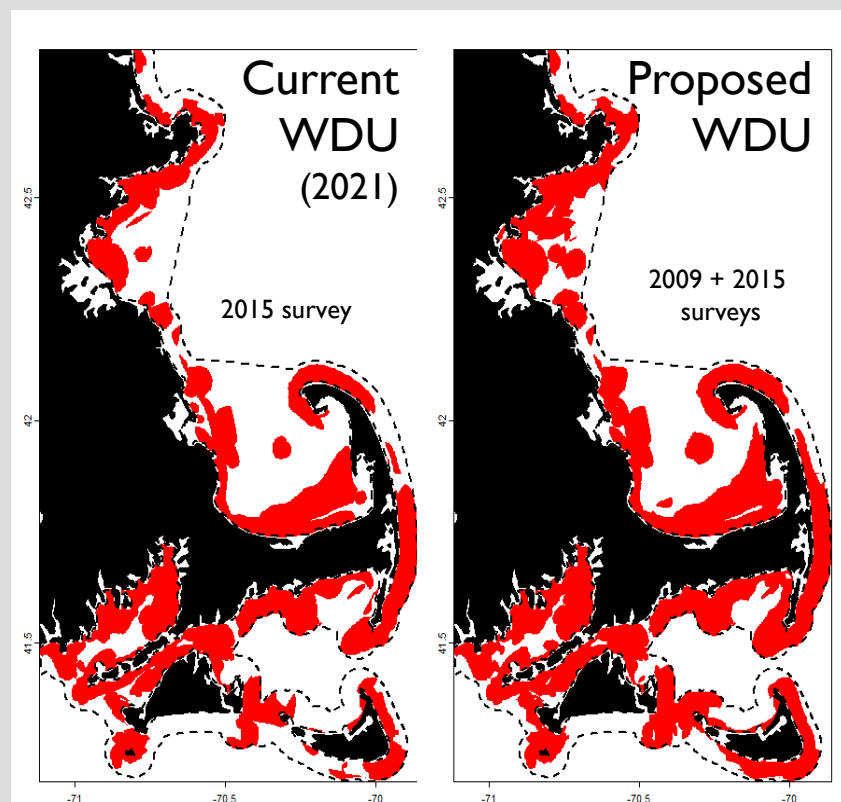
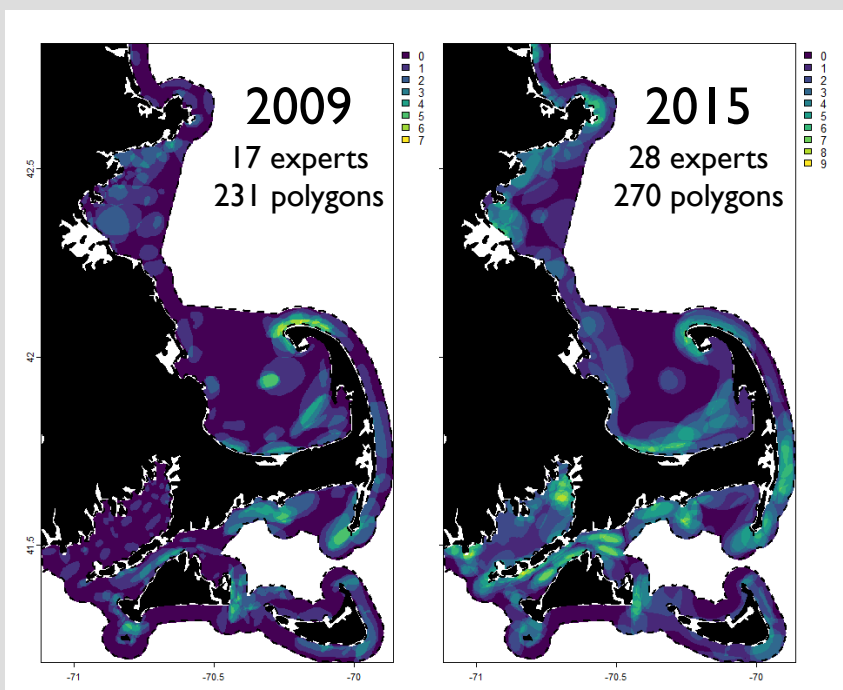
- Rec fishing experts asked to identify important areas in 2009 and 2015

Findings:

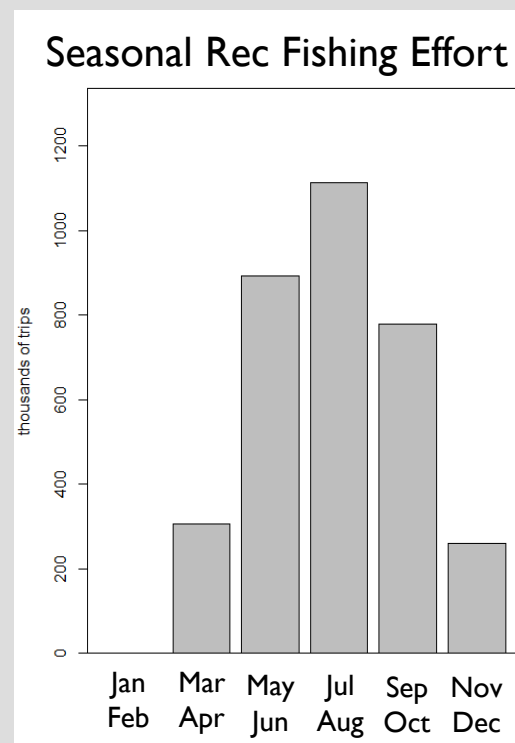
- Similar spatial pattern between surveys
- No new expert survey data

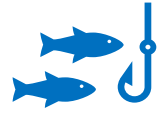
Recommendation:

- Combine both surveys for most comprehensive WDU
- Acknowledge seasonality of fishery



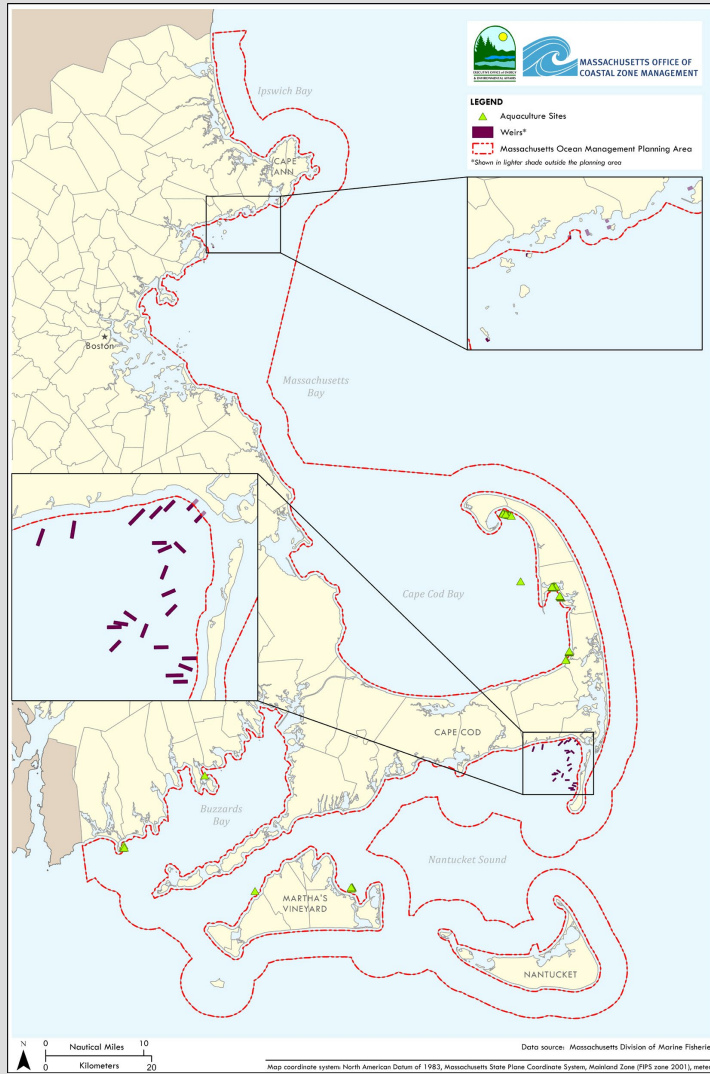
areas identified by 2+ experts





FIXED FISHING WDU

Current 2021 WDU



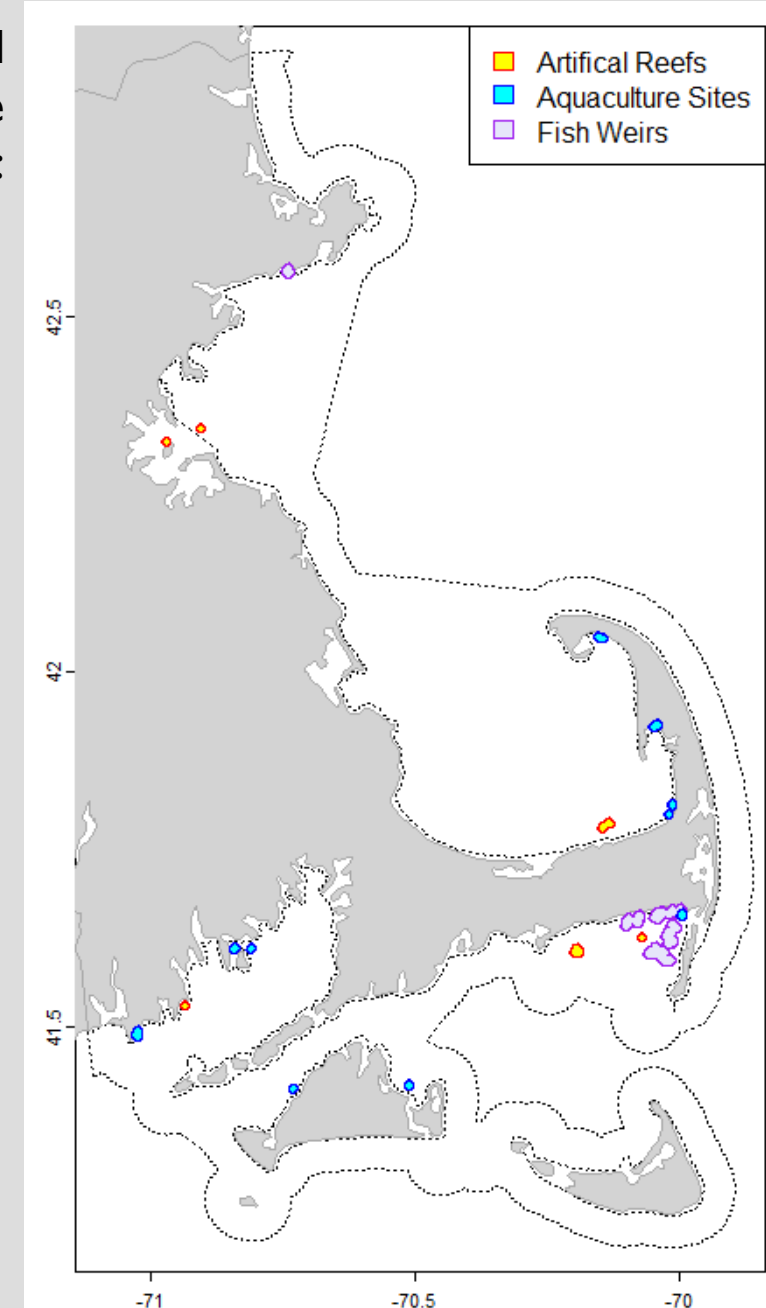
Findings:

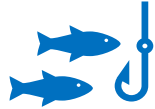
- In 2021, a “Fixed Fishing Facilities” WDU was created:
 - Aquaculture sites
 - Fish weirs

Recommendations:

- Add artificial reefs
- Rename to “Fixed Fishing Infrastructure”

Proposed Fixed Fishing Infrastructure WDU:





CRITICAL TRAWL SURVEY AREAS: PROPOSED WDU

Findings:

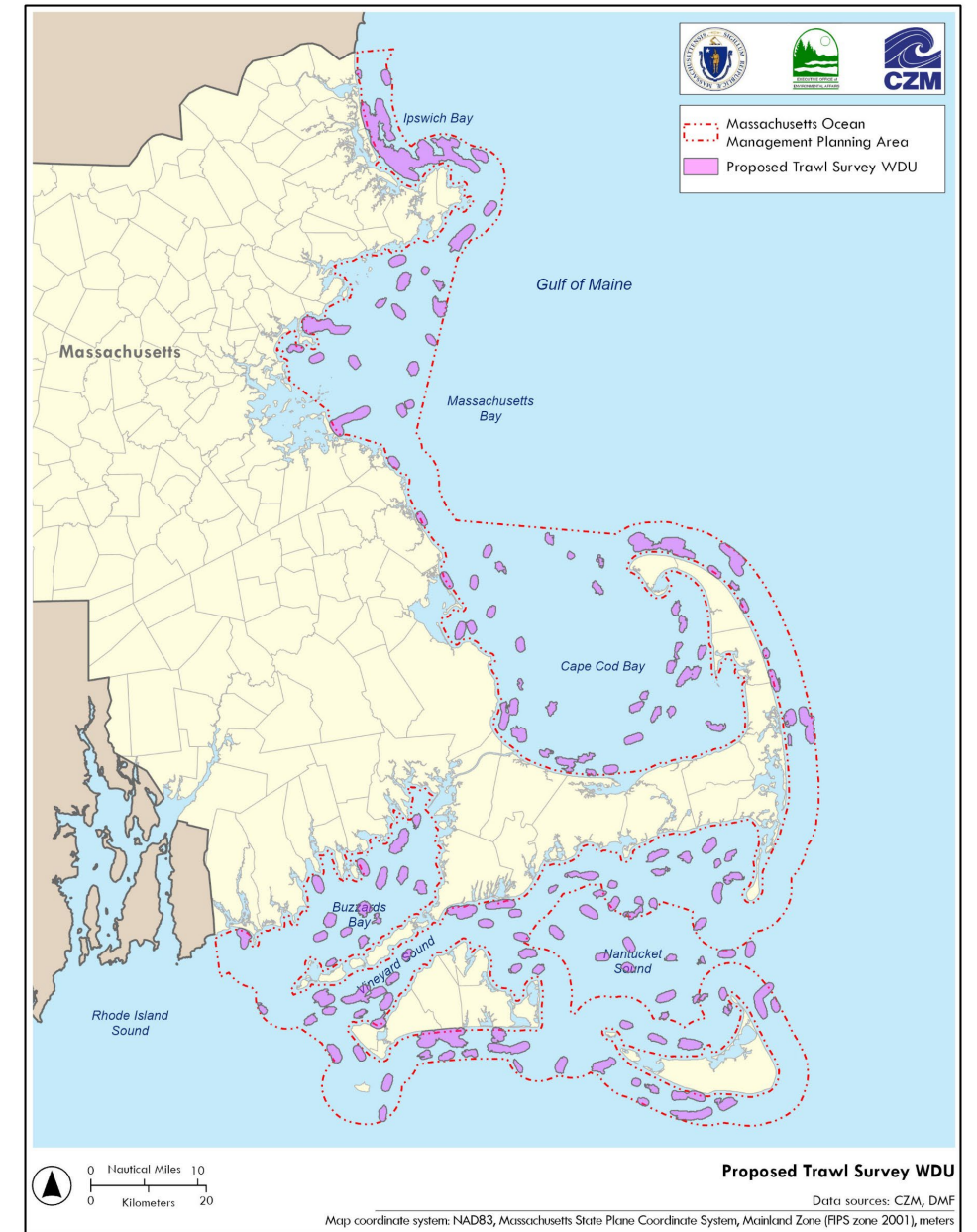
- MADMF trawl survey provides a critical dataset for the spatial/seasonal abundance of fish species for over 50+ years
- Due to survey design and complex seafloor, tows can only occur in certain locations for some strata

Method:

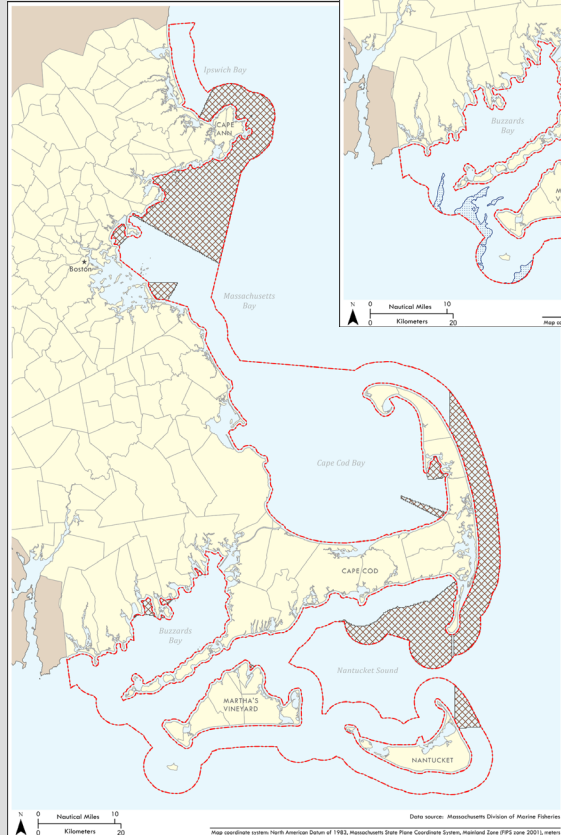
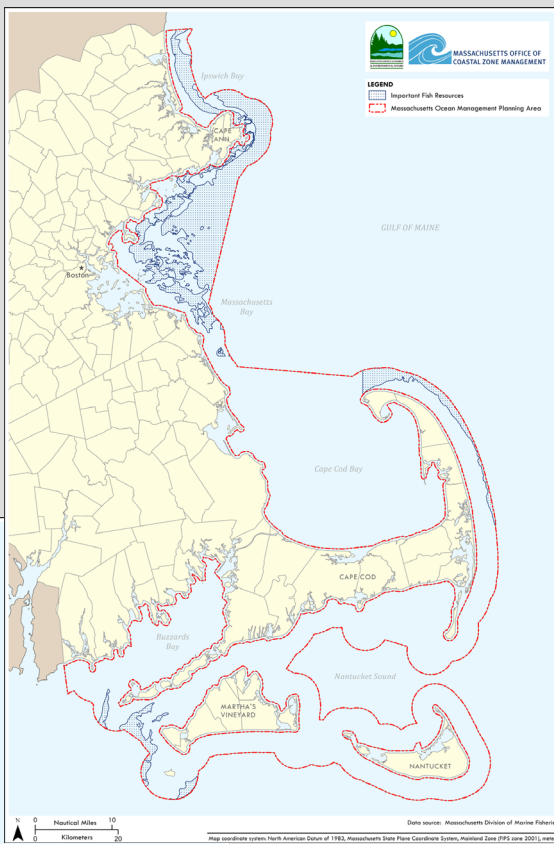
- Identify areas where survey tows repeatedly occur

Recommendation:

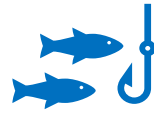
- Proposed WDU (pink polygons) to protect critical survey areas



2021 Fish Habitat SSU



2021 Commercial Fishing WDU



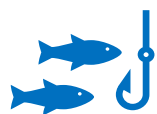
COMMERCIAL FISHING WDU & FISHERY RESOURCE SSU

Findings:

- Current WDU based on DMF reported landings data
- Current SSU based on DMF trawl survey data
- Single maps oversimplify the industry and ecology

Recommendations:

- Adopt a new set of fishing WDUs – by gear & season
- Adopt species/life-stage specific SSUs for the most vulnerable species
- New WDU and SSU maps are in effect seasonally
- For project review, include higher level of detail as supplemental information in the plan



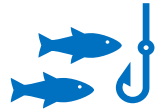
PROPOSED COMMERCIAL FISHING WDUS

Summary of Commercial Fisheries in Planning Area, 2015-2023

Methods:

1. Identify significant fisheries within the planning area
2. Describe spatial and seasonal patterns from landings data
3. Calculate “importance”
 - Value, Effort, Participants
4. Group by vulnerability and select most important areas & seasons

Category	Fishery	Average Annual Totals			
		Participants	Trips	Pounds	Dollars
Fixed	Lobster trap	713	34,091	9,850,453	\$52,551,825
Fixed	Whelk trap	74	2,489	1,054,171	\$3,459,079
Fixed	Fish trap	59	1,020	518,809	\$934,914
Fixed	Groundfish gillnet	9	540	536,552	\$594,554
Fixed	Weir	3	74	364,887	\$167,093
Trawl	Mixed SNE trawl	43	1,369	840,630	\$1,799,976
Trawl	Squid trawl	31	362	717,830	\$1,020,816
Trawl	Groundfish trawl	34	596	718,986	\$778,835
Dredge	Mussel dredge	7	359	5,220,746	\$6,710,451
Dredge	Clam dredge	16	442	3,902,475	\$1,277,157
Dredge	Sea scallop dredge	38	635	746,532	\$1,144,997
Hook	Striped bass hook	1,009	5,216	630,703	\$2,808,370
Hook	Black sea bass hook	285	2,018	244,899	\$704,732
Hook	Tautog hook	141	950	56,252	\$260,222
Hook	Fluke hook	83	459	42,179	\$148,624
Hook	Scup hook	190	979	181,675	\$137,511
Hook	Bluefish hook	279	1,024	108,961	\$136,943
Hook	Mackerel hook	61	322	445,739	\$120,157

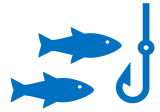


PROPOSED COMMERCIAL FISHING WDUS

Methods:

1. Identify significant fisheries within the planning area
2. Describe spatial and seasonal patterns from landings data
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 - Value, Effort, Participants
4. Group by vulnerability and select most important areas & seasons

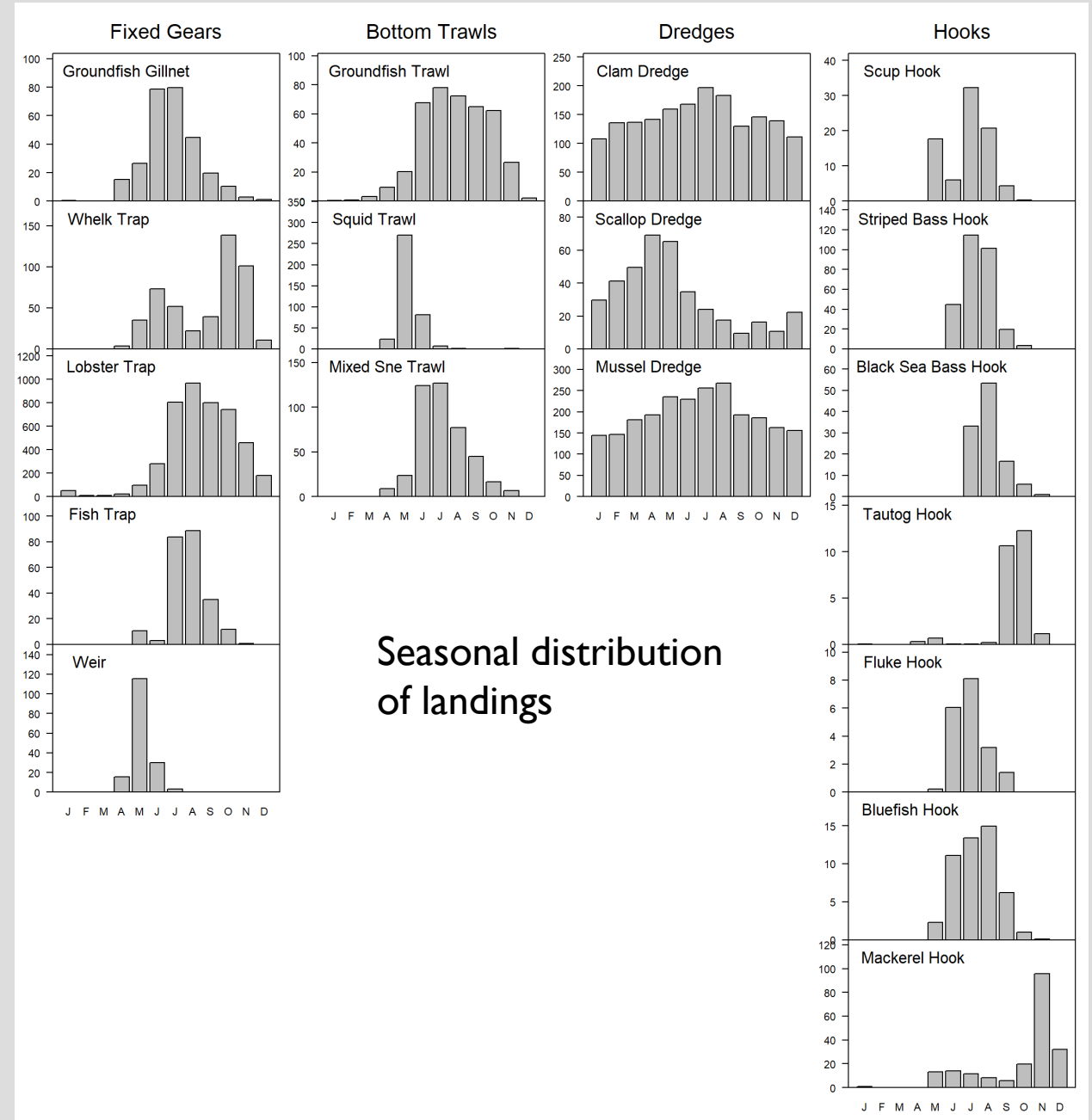




PROPOSED COMMERCIAL FISHING WDUS

Methods:

1. Identify significant fisheries within the planning area
2. Describe spatial and seasonal patterns from landings data
3. Calculate “importance”
 - Value, Effort, Participants
4. Group by vulnerability and select most important areas & seasons



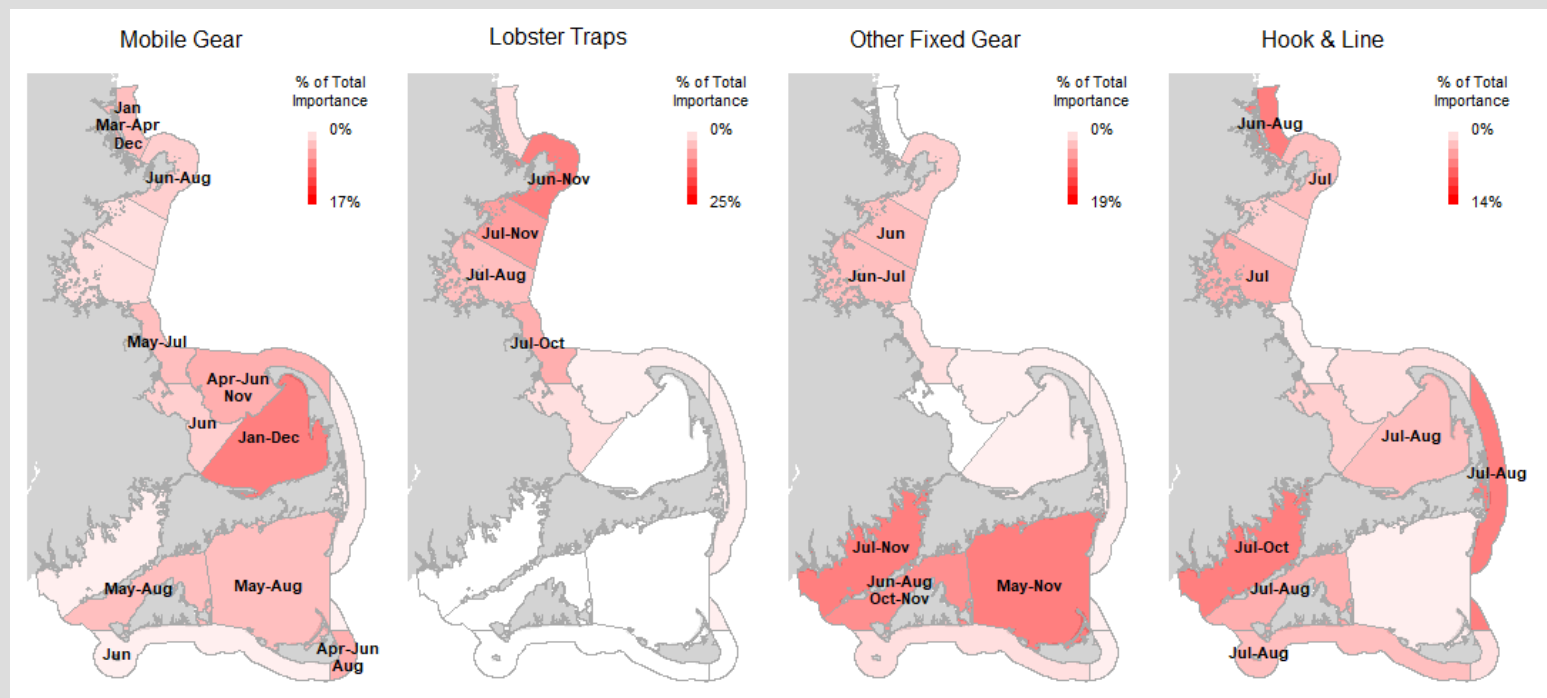


PROPOSED COMMERCIAL FISHING WDUS

Relative Importance of Areas & Seasons

Methods:

1. Identify significant fisheries within the planning area
2. Describe spatial and seasonal patterns from landings data
3. Calculate “importance”
 - Value, Effort, Participants
4. Group by vulnerability and select most important areas & seasons



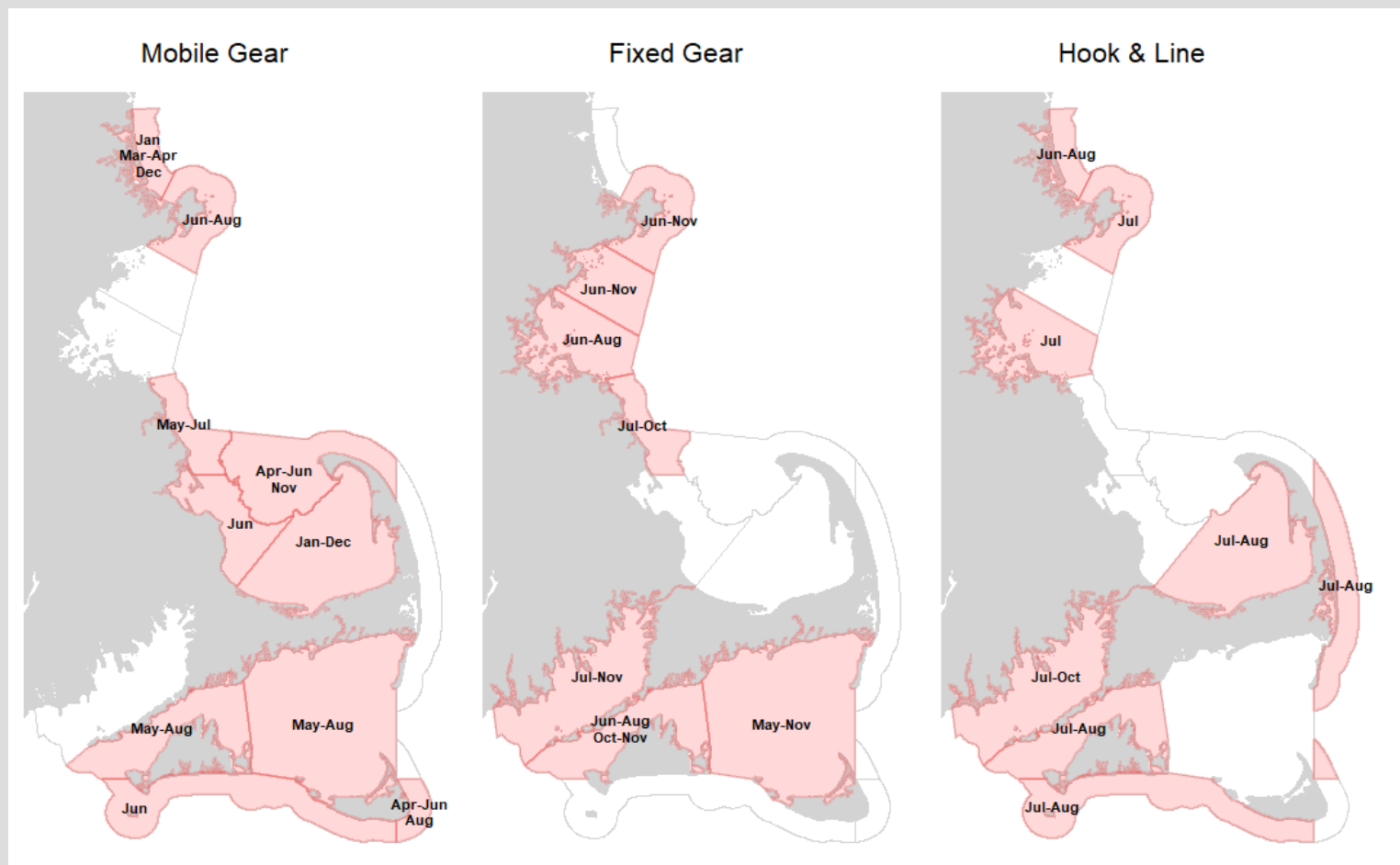


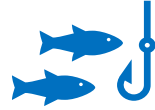
PROPOSED COMMERCIAL FISHING WDUS

Proposed Commercial Fishing WDUs

Methods:

1. Identify significant fisheries within the planning area
2. Describe spatial and seasonal patterns from landings data
3. Calculate “importance”
 - Value, Effort, Participants
4. Group by vulnerability and select most important areas & seasons





FISHERY RESOURCE SSUs

Methods:

1. Identify life history traits that are sensitive to seafloor cables or sand mining
2. Identify species that have those traits in the planning area
3. Select *most* sensitive species
 - Special – important fishery species
 - Sensitive – specific life history traits
 - Unique – exists primarily in planning area
4. Summarize trawl survey dataset

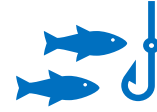
Because while every part of the planning area is important to at least one species, some species are more vulnerable to population-level impacts

Selected species with most sensitive Life History Traits

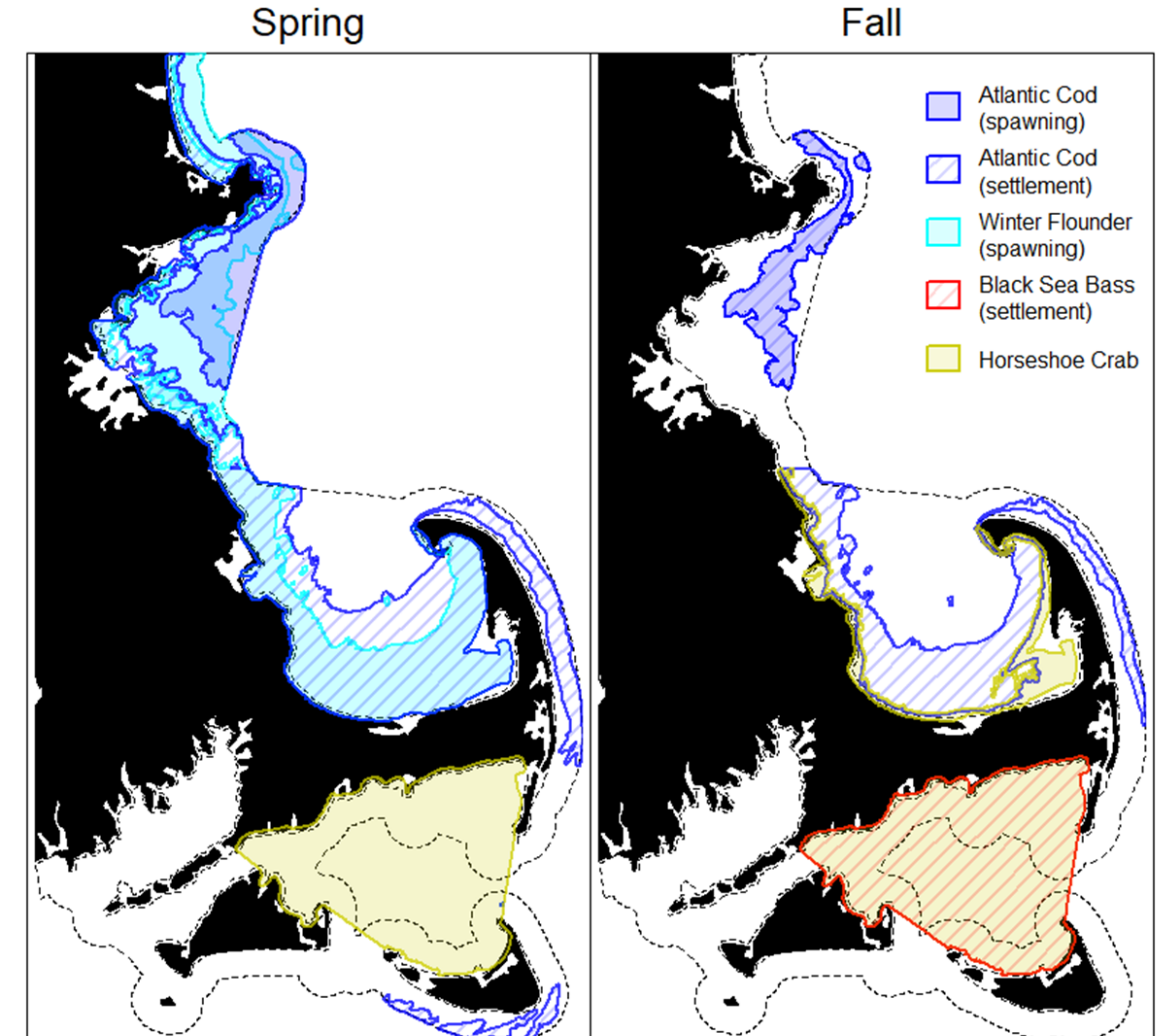
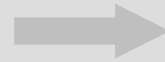
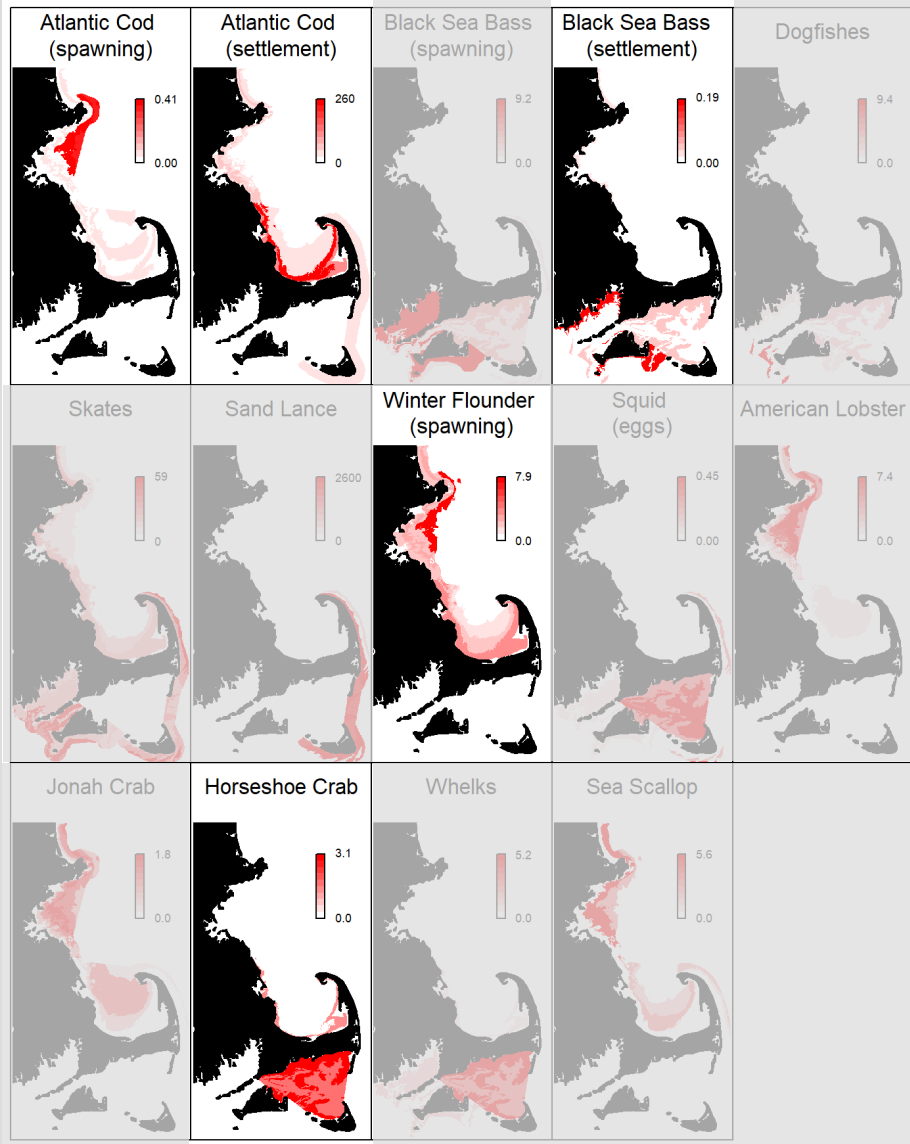
Species	Sensitive Traits	Sensitive Seasons	References
Horseshoe crabs	Migrators	year-round	Martinez, 2018; Bopp, 2019, 2022
Atlantic cod	Spawning	Apr-Jul; Oct-Jan	Dean, 2012, 2014; Zemeckis, 2014, 2019
Atlantic cod	Settlement	May-Jun; Sept-Nov	Howe, 2002; Grabowski, 2018
Black sea bass	Settlement	Jul-Oct	Drohan, 2007
Winter flounder	Eggs; Spawning	Jan-Jun	Pereria, 1999; Fairchild, 2013

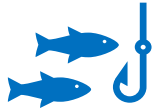
**continuing to assess methodology*

Trawl Survey Distribution of Sensitive Species (2015-2024)



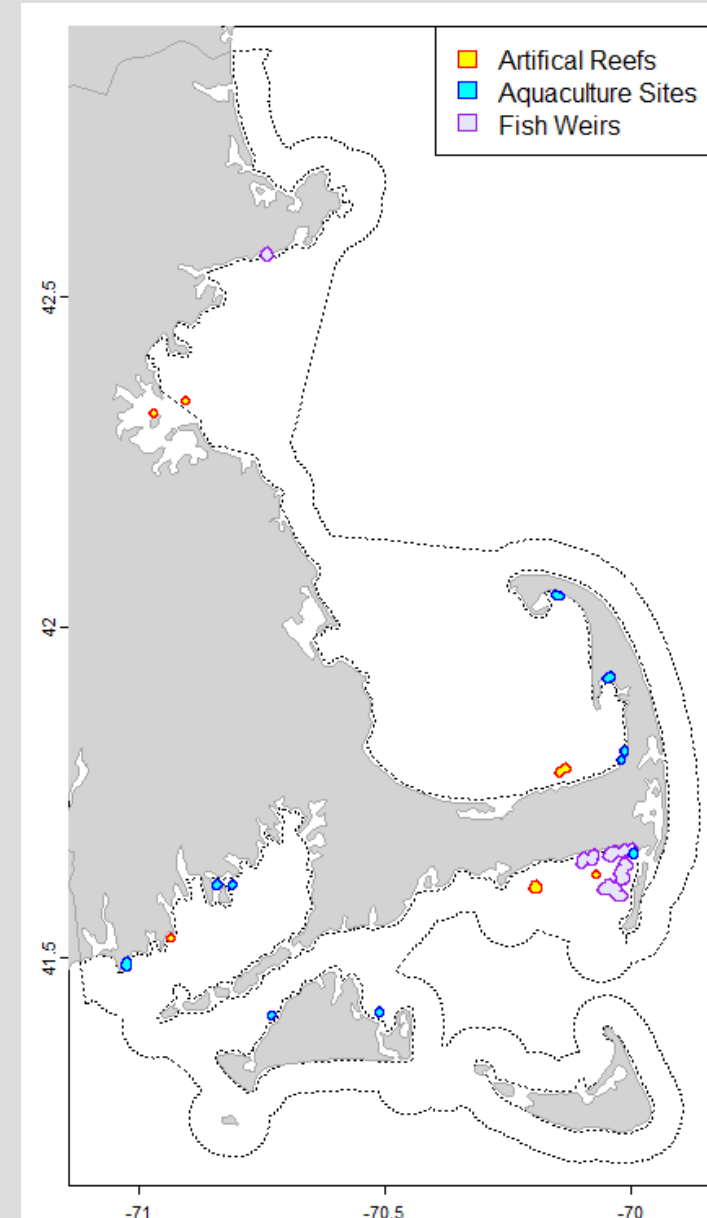
FISHERY RESOURCE SSUs





AQUACULTURE

- Currently **protected** via Fixed Fishing Facilities WDU
- Also a candidate for being a “managed use” with **siting standards**
 - Allowed use in M.G.L. ch. 132A §15-16
- Ocean Plan siting standards would:
 - **Only apply** to projects that a) are in the ocean planning area and b) are already required to prepare an EIR for MEPA
 - **Not increase or decrease state authority or local authority** over permitting aquaculture
 - Provide DMF and other reviewing agencies with a **siting guidelines** to point to in MEPA or other project reviews



POTENTIAL OPEN-WATER AQUACULTURE SITING STANDARDS

- Projects presumptively excluded from whale SSUs
- Projects presumptively excluded from Eelgrass and Hard/Complex SSUs
- Projects required to avoid/minimize/mitigate impacts to certain human uses: sand resource areas, critical trawl survey areas, fishing areas
- Other standards developed by DMF/CZM



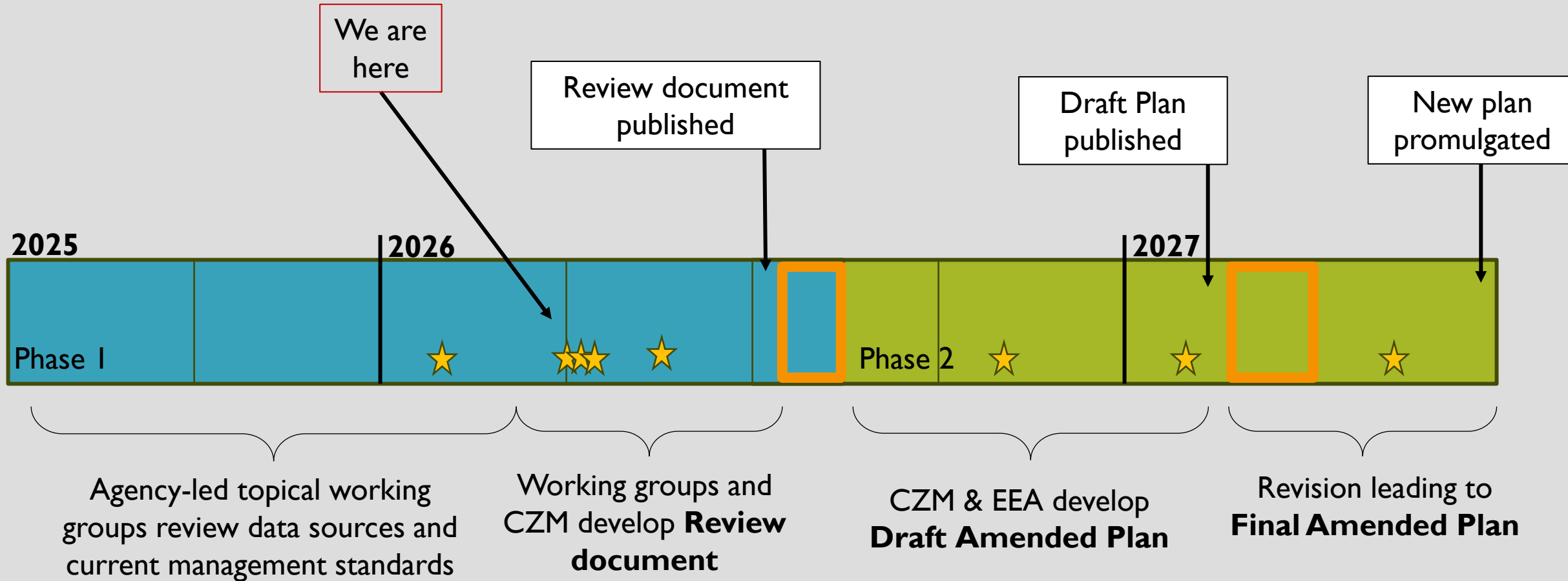
NEXT STEPS

- Additional SAC meeting to focus on:
 - Energy & Infrastructure (May 18, 11 am)
 - Sediment & Geology (May 21, 11 am)
- OAC meeting to focus on management framework and Ocean Plan administration
- Review Document
- Amended Ocean Plan

OCEAN PLAN REVIEW TIMELINE

★ OAC and SAC meetings

□ Public Comment Periods



Note: this is a tentative timeline subject to revision