

Report of CCC Subcommittee on Area- based Management

October 2021 CCC Meeting
Eric Reid, Chair



Subcommittee Members

Members:

- Eric Reid, (NEFMC) Chair
- Deirdre Boelke (NEFMC)
- Jessica Coakley (MAFMC)
- Mark Fitchett (WPFMC)
- John Froeschke (GMFMC)
- Kerry Griffin (PFMC)
- Roger Pugliese (SAFMC)
- Miguel Rolon (CFMC)
- Dave Witherell (NPFMC)

With assistance from NOAA Fisheries:

- Heather Sagar
- Tim Haverland
- Michelle Lennox

Terms of Reference (5/2021)

Products and Services (condensed):

1. Assist the CCC with reacting to the 30 by 30 initiative.
2. Prepare report on Area-based Measures in U.S. EEZ.
 - An evaluation of all existing EEZ fishery area closures relative to the 30 by 30 initiative.
 - A discussion of the pros and cons of area-based management.
 - Objectives and expected benefits of area-based management tool for the diversity of ecosystems under Councils' jurisdictions.
3. Prepare a journal article on area-based measures for marine fisheries in the U.S.

Meetings of the Subcommittee

June 17

- Discussed tasks and timelines
- Discussed areas to be considered
- Discussed database development

July 22

- Received update on 30x30 effort
- Discussed data categories and attributes
- Reviewed draft report TOC

August 17

- Reviewed working definition of conservation area
- Reviewed progress on regional data spreadsheets
- Clarified interpretation of data attributes

September 15

- Reviewed regional spreadsheets
- Reviewed draft report summary tables
- Discussed planning

Meeting minutes are posted in the CCC briefing materials

What is a Conservation Area?

DRAFT WORKING DEFINITION: For the purposes of the CCC Subcommittee report, a conservation area is an, 1) established, geographically defined area, with 2) planned management or regulation of environmentally adverse fishing activities, that 3) provides for the maintenance of biological productivity and diversity, ecosystem function and services (including seafood production).

Conservation areas are established to:

- **Protect aspects of the ecosystem and maintain biodiversity**, with objectives of protecting:
 1. sensitive or important habitat types, (e.g., deep-sea coral areas),
 2. particularly biodiverse or special ecosystems (e.g., canyons and seamounts)
 3. vulnerable keystone species (e.g., marine mammal conservation areas)
- **Address numerous other fishery management challenges**, such as spatial issues related to mortality reduction, spawning aggregations, allocations, catch limits, or bycatch concerns
- **Address other issues**, such as human health PSP closures

Regional Data Spreadsheets and OECM evaluation

Each area is described:

Name, Size (nm²), Year implemented, CFR, Objective, Prohibitions, adjacent State water restrictions (y/n), Application of America the Beautiful principles

Each area is classified by **type (objective)** and **management focus**:

1. **Ecosystem and Biodiversity Protection**

Focus: Habitat, Vulnerable species, Vulnerable ecosystems

2. **Fisheries Management** (year-round closures)

Focus: Mortality reduction, Stock rebuilding, Allocation, Catch Limits, Bycatch concerns

3. **Other Types and Seasonal Fisheries Management Areas**

Focus: PSP closures, Spawning closures, Seasonal bycatch measures

Each area will be evaluated using IUCN criteria for ‘Other Effective Area-based Conservation Measures’ (OECM) – work in progress:

By answering evaluation questions: geographically defined?, has legitimate governance authority?, effectively managed?, effective conservation of biodiversity?, is the conservation sustained and long term ?, conserve whole nature or just a few elements?, monitored for effectiveness?, provide protection of ecosystem functions and services? protect key species or habitats important for cultural values?

Abbreviated Regional Data Tables

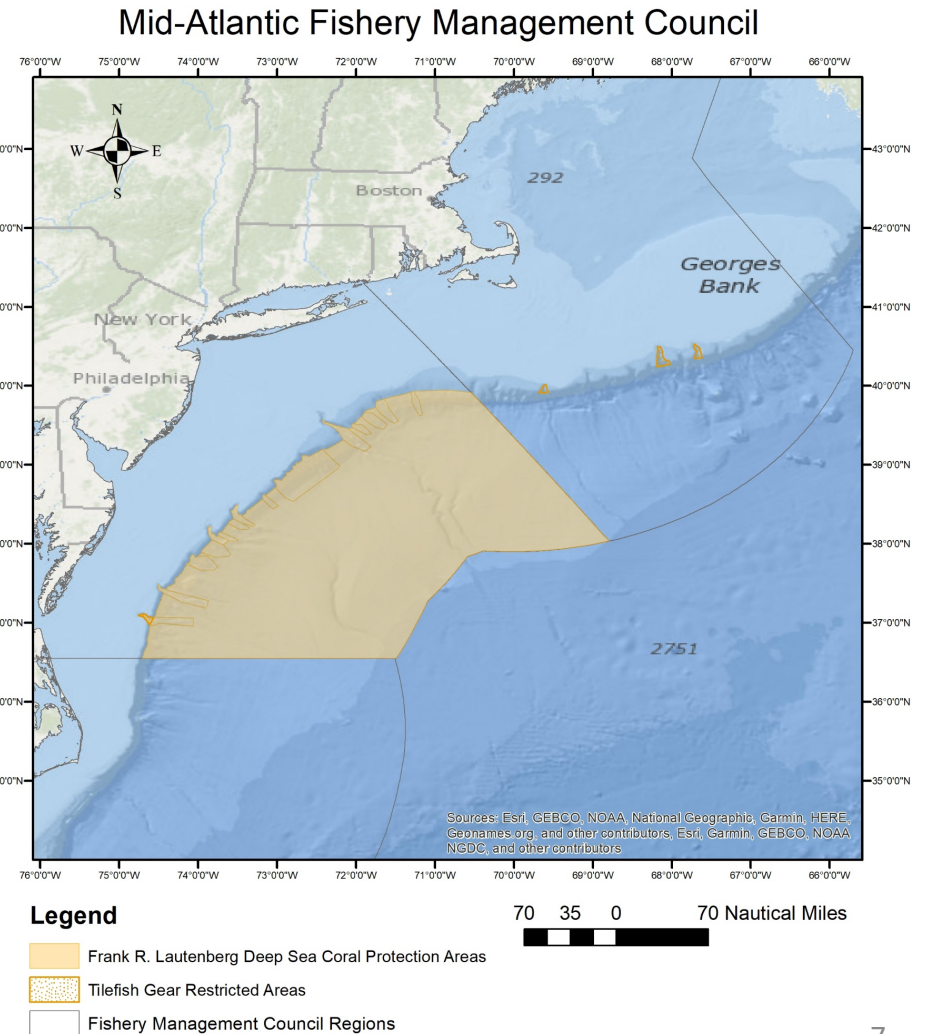
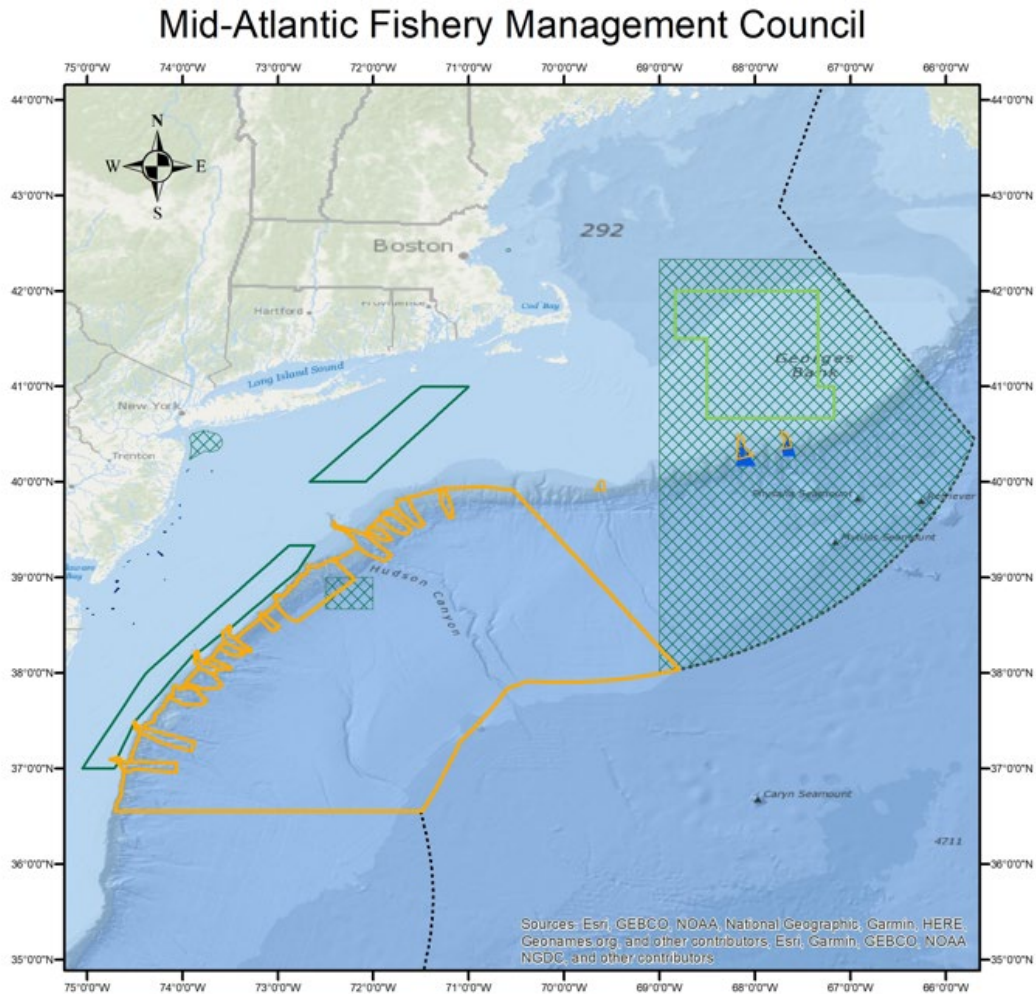
Mid Atlantic Region Conservation Areas. Preliminary Data Updated October 4, 2021. Size is for individual area, does not account for any overlaps, nor does it remove areas that may extend into or overlap with the New England Region.

Type*	Focus	Area Names (# subareas)	Size (nm ²)	CFR	Prohibitions/Restrictions	ATB Principles Applied
Ecosystem Protection	vulnerable species (corals)	Frank R. Lautenberg Deep-Sea Coral Protection Areas	33,321	50 CFR 648.372	Bottom-tending commercial fishing gear.	1,2,3,5,7,8
Ecosystem Protection	habitat	Tilefish Gear Restricted Areas (4)	133	50 CFR 648.297	Bottom-tending mobile fishing gear.	1,2,3,5,7,8
Year-round Fishery Mgmt.	habitat	Mackerel, Squid, and Butterfish Bottom Trawling Restricted Areas (2)	124	50 CFR 648.23	No permitted mackerel, squid, or butterfish vessel may fish with bottom trawl gear.	1,2,3,5,7,8
Year-round Fishery Mgmt.	habitat	Delaware (4) and New Jersey Special Management Zone Areas for Recreational Fishermen (13)**	23	50 CFR 648.148	No person may fish in the Delaware Special Management Zones except by handline, rod and reel, or spear fishing (including the taking of fish by hand)	1,2,3,5,7,8

Regional Data Maps (under development) - Example 1 (MAFMC)

All Conservation Areas – All 3 Area Types

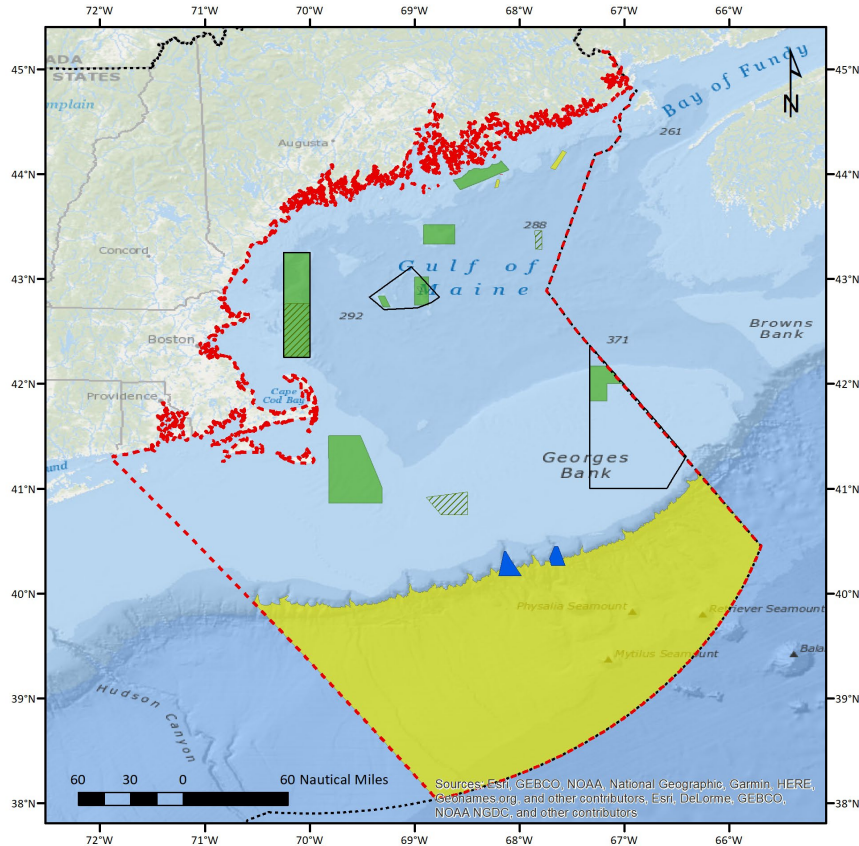
Ecosystem Protection Areas Only (Type 1)



Example 2 - NEFMC – “Tier 1 vs. Tier 2”

Year-round closure to all mobile bottom tending gears

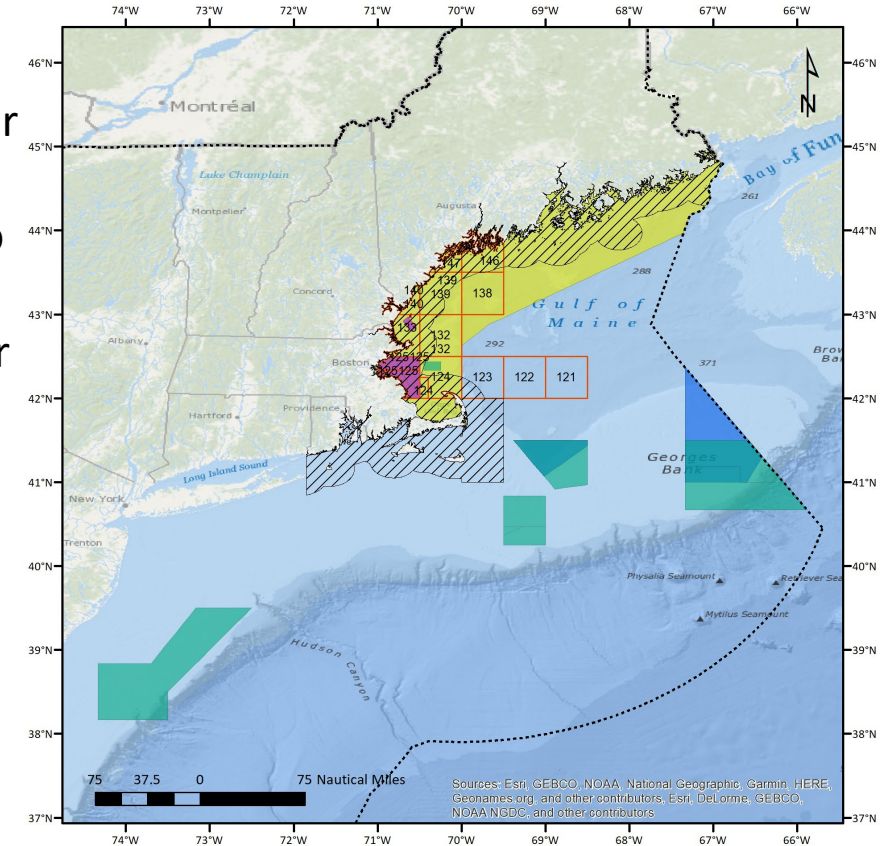
New England Fishery Management Council
Tier 1 Management Areas



- Groundfish Closure Areas (Ecosystem Protection, Vulnerable Species)
- Habitat Management Areas (Ecosystem Protection, Habitat; Vulnerable Ecosystem)
- Monkfish Canyon Closed Areas (Ecosystem Protection, Habitat; Vulnerable Ecosystem)
- Deep Sea Coral Protection Zones (Ecosystem Protection, Habitat; Vulnerable Ecosystem)
- Dedicated Habitat Research Areas (Other)

Seasonal or temporary closures to specific fisheries or gears

New England Fishery Management Council
Tier 2 Management Areas



- Herring MWT Restricted Area (1A) (Seasonal Fishery Management)
- Herring MWT Restricted Area (Inshore) (Year-Round Fishery Management)
- GOM Cod Protection Closures (Seasonal Fishery Management)
- GOM Spawning Groundfish Closures (Seasonal Fishery Management)
- GB Spawning Groundfish Closures (Seasonal Fishery Management)
- Scallop Rotational Areas (2021) (Other)

VERY Preliminary Results – Number of Conservation Areas

Table 1. Number of Council established conservation areas, by objective* and region, in the U.S. EEZ. Note: All data are preliminary.

Region	Ecosystem Protection	Year-round Fishery Management	Seasonal Fishery Closures or Other	Total # (all areas)
New England	13	4	22	39
Mid Atlantic	5	19	6	30
South Atlantic	163	19	17	199
Caribbean	7	0	0	7
Gulf of Mexico	21	4	10	35
Pacific	76	TBD	20+	96
North Pacific	210	21	6	237
Western Pacific	7	12	1	20
Total	495	79+	82+	663+

*Ecosystem Protection Areas are designed to protect habitat, biodiversity or special ecosystems, or vulnerable species. Year-round Fishery Management areas are designed to address spatially driven fishery management challenges. Seasonal Fishery Management/Other include areas that seasonally address spatially driven fishery management challenges, or other area-based conservation measures that may not fit in the other 2 categories.

VERY Preliminary Results – Area Coverage by Objective

Table 2. Regional coverage of conservation areas (nm²), by objective* and region, in the U.S. EEZ. Note: All data are preliminary.

Region	Total area (nm ²) of U.S. EEZ	Ecosystem Protection	Year-round Fishery Management	Seasonal Fishery Closures or Other	Total % (all areas combined; no overlap)
New England	59,990	TBD	TBD	TBD	43,218 (36%)**
Mid Atlantic	60,125	33,321	23	TBD	TBD
South Atlantic	143,806	20,582	71,682	19,158	TBD
Caribbean	59,982	48	0	0	TBD
Gulf of Mexico	182,738	3,149	57,936	TBD	TBD
Pacific	318,746	282,063	TBD	TBD	TBD
North Pacific	1,025,770	667,445	984,294	52,399	TBD
Western Pacific	1,692,082	947,004	218,352	99,931	1,032,825(61%)
Total	3,543,239	TBD	TBD	TBD	TBD

*Ecosystem Protection Areas are designed to protect habitat, biodiversity or special ecosystems, or vulnerable species. Year-round Fishery Management areas are designed to address spatially driven fishery management challenges. Seasonal Fishery Management/Other include areas that seasonally address spatially driven fishery management challenges, or other area-based conservation measures that may not fit in the other 2 categories.

** Some conservation areas implemented by the NEFMC are located in the MA portion of the EEZ; therefore, the current percentage value is based on the NE and MA EEZ areas combined. [we may want to present this differently moving forward]

VERY Preliminary Results – Area Closed Year-Round

Table 3. Total area coverage (nm²) where fishing gear* is prohibited year round, by region, in the U.S. EEZ. Note: All data are preliminary.

Region	Total area (nm ²) of U.S. EEZ	Year-round, Total area (nm ²)			% of Region (no overlap)		
		All bottom tendings gears	Bottom trawl or dredge	Other gears	All bottom tendings gears	Bottom trawl or dredge	Other gears
New England	59,990	23,434	N/A	10,031	39.1	N/A	16.7
Mid Atlantic	60,125	33,344	TBD	TBD	55.5	TBD	TBD
South Atlantic	143,806	20,582	TBD	29,899	14.3	TBD	20.79
Caribbean	59,982	48	59,982	N/A	0.1	100.0	N/A
Gulf of Mexico	182,738	1,191	1,488	28,571	0.7	0.8	15.6
Pacific	318,746	1,668	282,063	TBD	0.5	88.5	TBD
North Pacific	1,025,770	153,832	757,047	784,294	15.0	73.8	76.4
Western Pacific	1,692,082	1,692,082	1,692,082	932,894	100.0	100.0	55.1
Total	3,543,239	1,926,181	TBD	TBD	54.4	TBD	TBD

*Bottom tending gear means a gear configuration that contacts the seafloor, and includes all mobile bottom tending gear (such as bottom trawl and dredges) and fixed gears (such as pots/traps, or longlines) that sit on bottom. Bottom trawling means trawl gear designed to contact the seafloor (i.e., not pelagic trawls). Dredge gear includes dredge configurations (e.g., scallop and clam toothed or hydraulic gear) that contact the seafloor. Other gears may include those gears not listed above that may impact components of the ecosystem (e.g., pelagic longlines, pelagic gillnets, rod and reel, spears, etc)

VERY Preliminary Results – Areas closed Seasonally

Table 4. Total area coverage (nm ²) where fishing gear* is <u>prohibited seasonally</u> , by region, in the U.S. EEZ. Note: All data are preliminary.								
Region	Total area (nm ²) of U.S. EEZ	Seasonal, Total area (nm ²)			% of Region (no overlap)			
		All bottom tendings gears	Bottom trawl or dredge	Other gears	All bottom tendings gears	Bottom trawl or dredge	Other gears	
New England	59,990	TBD	18,783**	10,058	TBD	TBD	TBD	
Mid Atlantic	60,125	TBD	TBD	TBD	TBD	TBD	TBD	
South Atlantic	143,806	TBD	TBD	19,159	TBD	TBD	TBD	
Caribbean	59,982	0	N/A	32	0	N/A	0.1	
Gulf of Mexico	182,738	611	45,293	TBD	TBD	TBD	TBD	
Pacific	318,746	TBD	TBD	TBD	TBD	TBD	TBD	
North Pacific	1,025,770	0	7,686	0	0	0.8	0	
Western Pacific	1,692,082	N/A	N/A	99,931	N/A	N/A	6	
Total	3,543,239	TBD	TBD	TBD	TBD	TBD	TBD	

*Bottom tending gear means a gear configuration that contacts the seafloor, and includes all mobile bottom tending gear (such as bottom trawls and dredges) and fixed gears (such as pots/traps, or longlines) that sit on bottom. Bottom trawling means trawl gear designed to contact the seafloor (i.e., not pelagic trawls). Dredge gear includes dredge configurations (e.g., scallop and clam toothed or hydraulic gear) that contact the seafloor. Other gears may include those gears not listed above that may impact components of the ecosystem (e.g., pelagic longlines, pelagic gillnets, rod and reel, spears, etc.)

** Some conservation areas implemented by NEFMC are within the MA EEZ; therefore, % of Region for those values are in terms of the NE and MA EEZ areas combined.

Next Steps for the ABM Subcommittee

- Continue to refine regional spreadsheets
- Determine consistent methodology for evaluating OECM criteria, and complete spreadsheets
- Complete regional maps and conservation area calculations (additional GIS staff resources needed)
- Prepare draft written report for Spring CCC meeting
- Continue to coordinate with NOAA Fisheries on Atlas database
- Support the CCC on the development of any position statements on this issue
- If time permits, draft journal article on use of area-based management in US fisheries management and conservation
- Complete regional maps and conservation area calculations (additional GIS staff resources needed)