

Collaborative Development of Deep-Sea Coral Protected Areas in the US Mid-Atlantic



MID-ATLANTIC | FISHERY
MANAGEMENT
COUNCIL

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NOAA Deep Sea Coral Research and Technology
Program Webinar Series

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Overview

- ▶ Summary of Mid-Atlantic Fishery Management Council's 2015 action to protect deep sea corals from the impacts of fishing gear
- ▶ Key development challenges and solutions
- ▶ Outcome and potential next steps

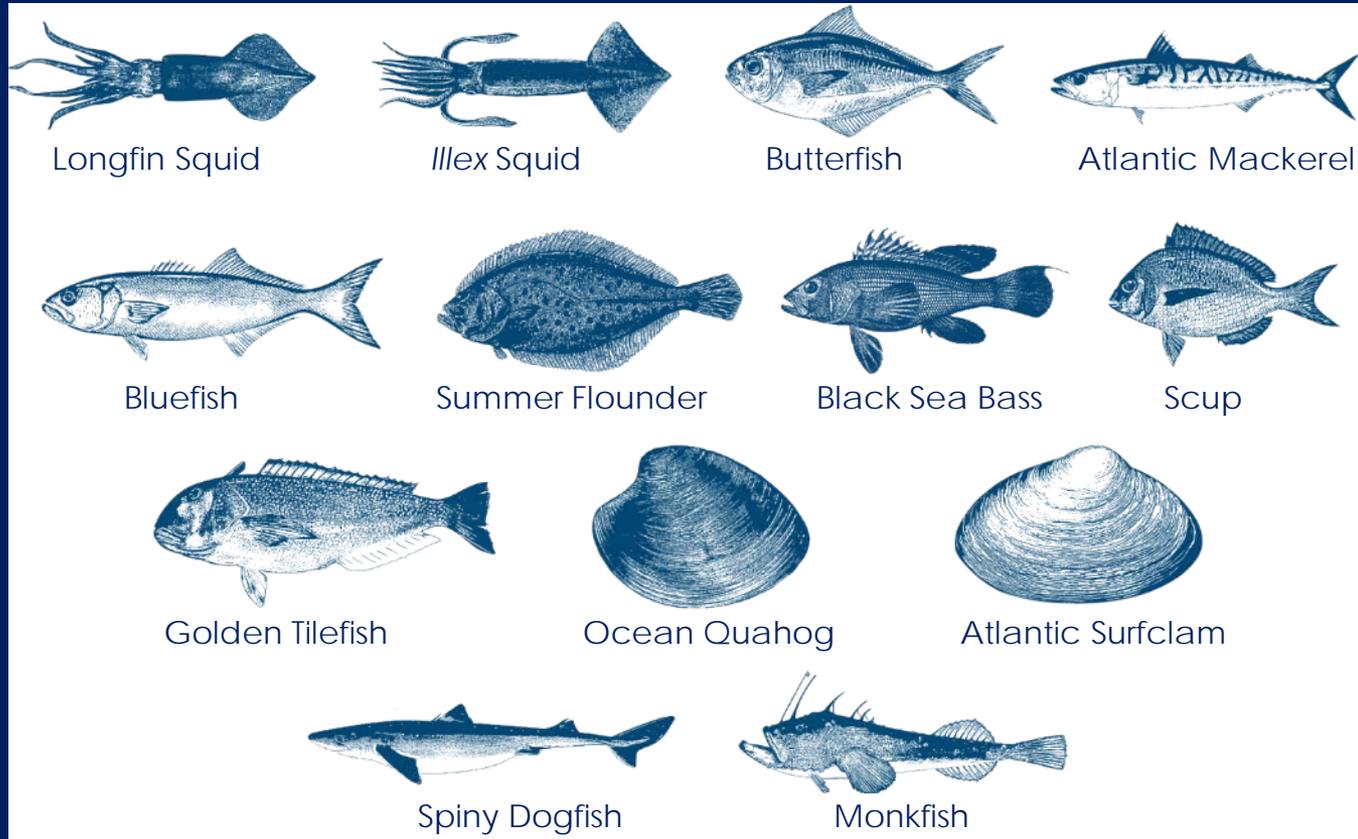
Mid-Atlantic Council

7 States



13 Species

7 Fishery Management Plans



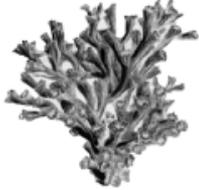
Deep Sea Corals Amendment

- ▶ 2015: Council approved spatial management measures for deep sea coral protection

AMENDMENT 16
TO THE ATLANTIC MACKEREL, SQUID, AND BUTTERFISH
FISHERY MANAGEMENT PLAN

Measures to Protect Deep Sea Corals from Impacts of Fishing Gear

Environmental Assessment, Regulatory Impact Review, and Initial
Regulatory Flexibility Analysis



AUGUST 2016

Prepared by the Mid-Atlantic Fishery Management Council
in cooperation with
the National Marine Fisheries Service (NMFS)

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General Action Timeline



- ▶ **2013:** Action initiated
- ▶ **2015:** Public hearings and final action
- ▶ **2016:** Rulemaking and implementation (final rule Dec. 2016)

Amendment Purpose

- ▶ Protect mid-Atlantic deep sea corals from current and potential future interactions with fishing gear
- ▶ Balance protections with economic value of offshore commercial fisheries



Regulatory Authority

- ▶ Magnuson-Stevens Reauthorization Act (2007) discretionary authority to designate "deep sea coral zones"
- ▶ First Regional Fishery Management Council to use these provisions (New England Council is currently developing similar action)



MSA Discretionary Authority

- ▶ “To prevent damage to corals from fishing gear or loss or damage to such gear”
- ▶ Can apply to any federally regulated fishing activity
- ▶ More flexibility to define spatial areas for coral protection (vs. EFH designation, for example)



Zone “Types” Considered by MAFMC

Broad Coral Zone

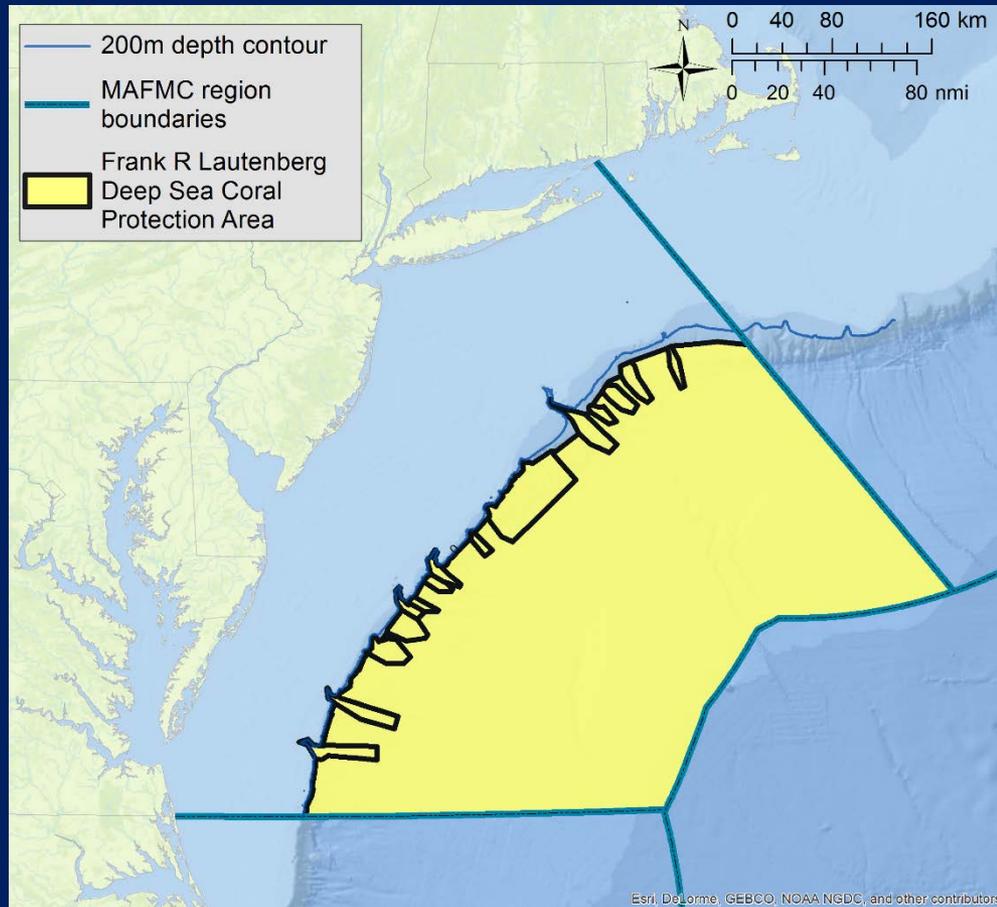
- ▶ Large area beyond depths of most current fishing effort
- ▶ Based on “*Freeze the footprint of fishing*” principle

Discrete Coral Zones

- ▶ Smaller areas, mostly individual canyons
- ▶ Based on known/highly likely coral presence

Council had option to approve ONE or BOTH types

Final Coral Zones



“Frank R. Lautenberg Deep Sea Coral Protection Area”: Named for the late NJ senator who championed deep sea coral protection provisions under Magnuson

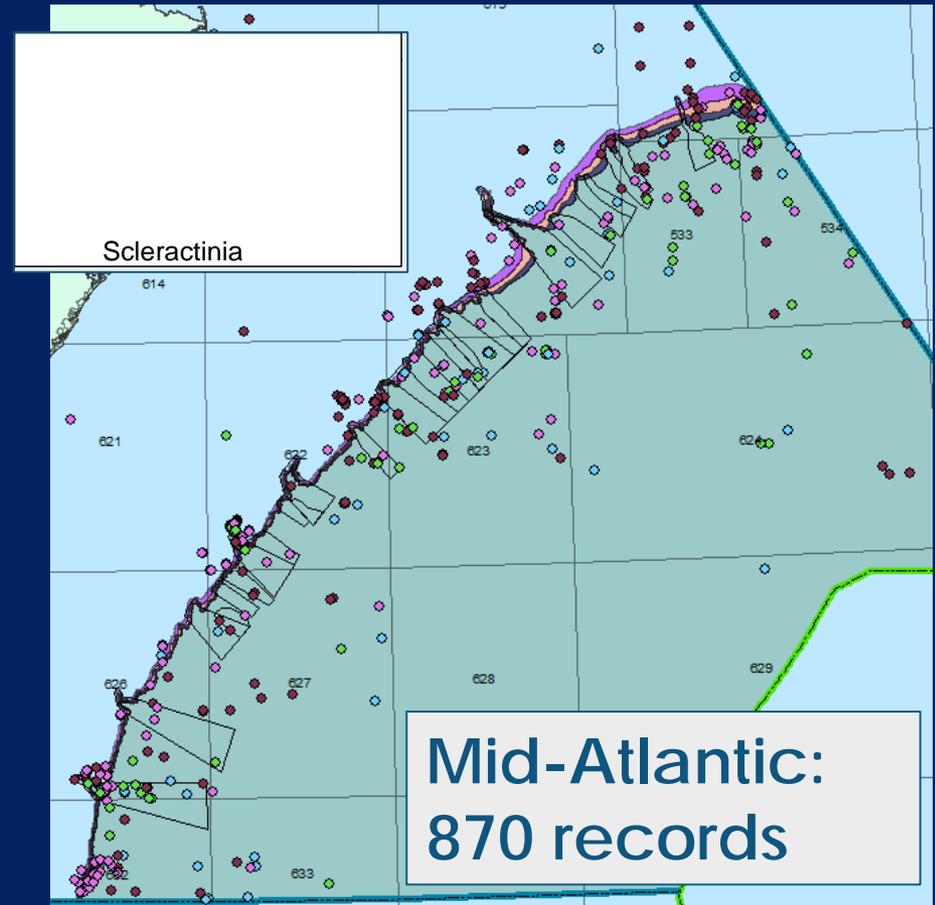
Management Measures

- ▶ **All commercial bottom-tending gear prohibited (both mobile and passive gear)**
 - ▶ Trawls, dredges, bottom longlines, sink gill nets, etc.
- ▶ Except...
 - ▶ Not applicable to lobster traps
 - ▶ Exemption for red crab trap fishery
 - ▶ Indefinitely in broad zones; plan to revisit discrete zone exemption in ~2 years

Early Challenges (~2012)

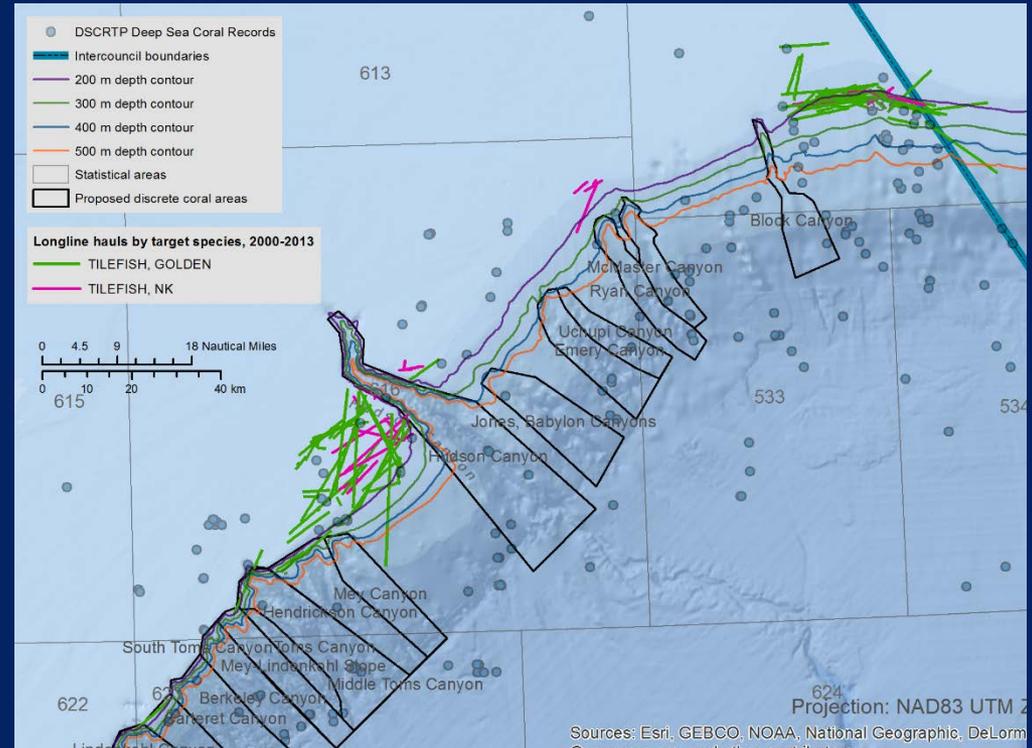
1. Limited coral distribution and habitat data

- ▶ DSCRTP historical records (varying location precision)
- ▶ Many large un-surveyed areas



Early Challenges (~2012)

2. Limited fine-scale fishing effort data (esp. for non-trawl); industry concern and pushback



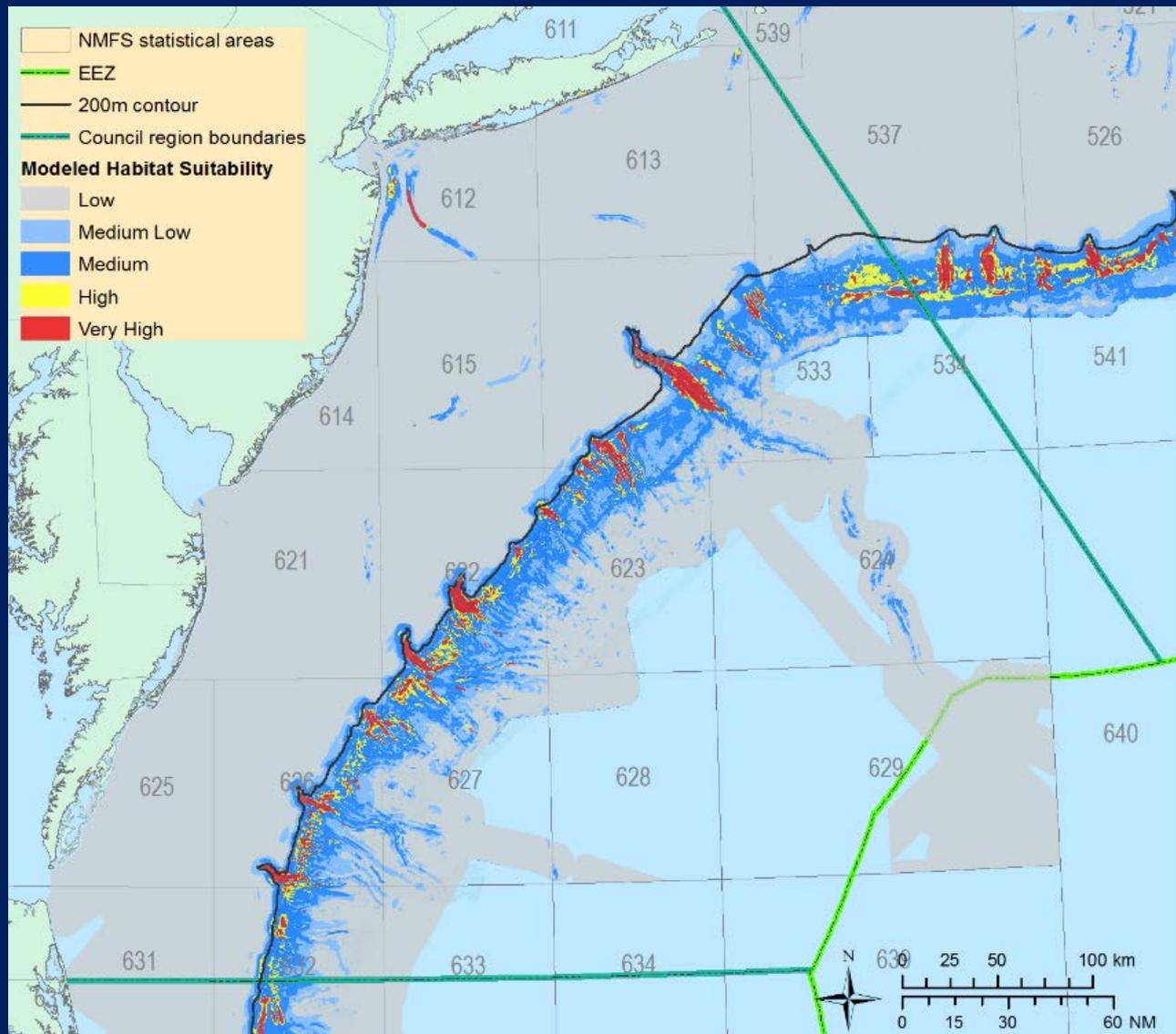
Observed bottom longline hauls, 2000-2013

Keys to Successful Outcome

1. Recent (2012-2014) habitat modeling, coral surveys, and high resolution bathymetry & slope data
2. 2015 collaborative boundary development workshop with fishermen, scientists, environmental groups, and managers

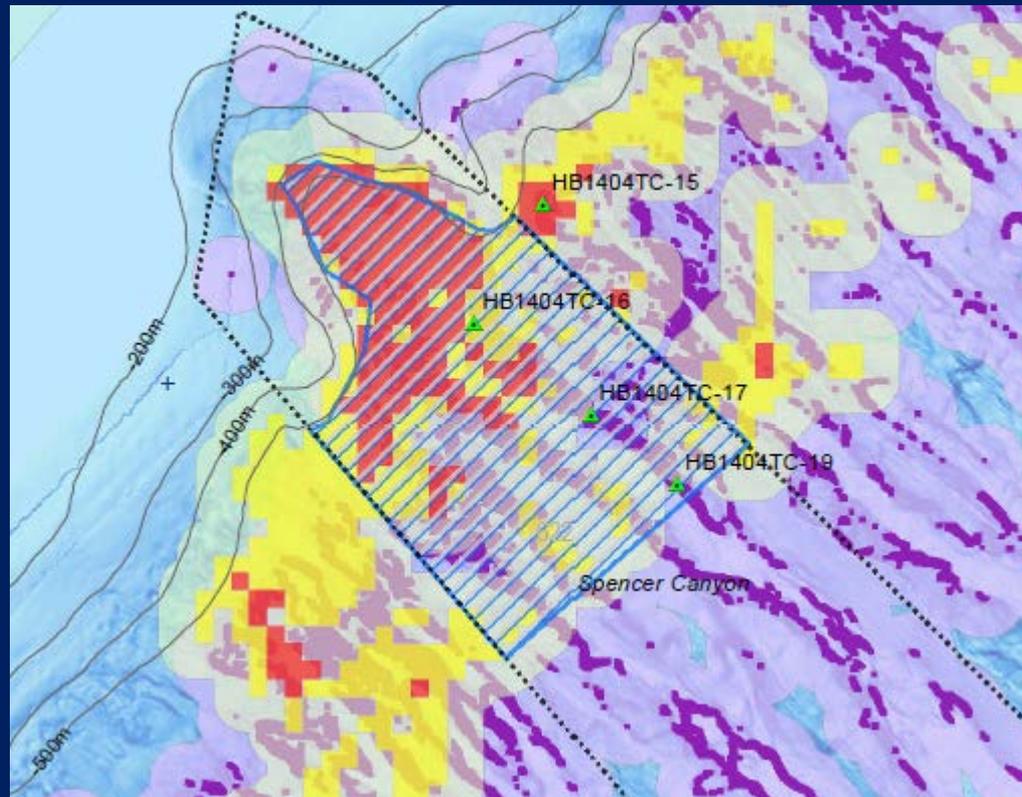


2013: Coral Habitat Suitability Model



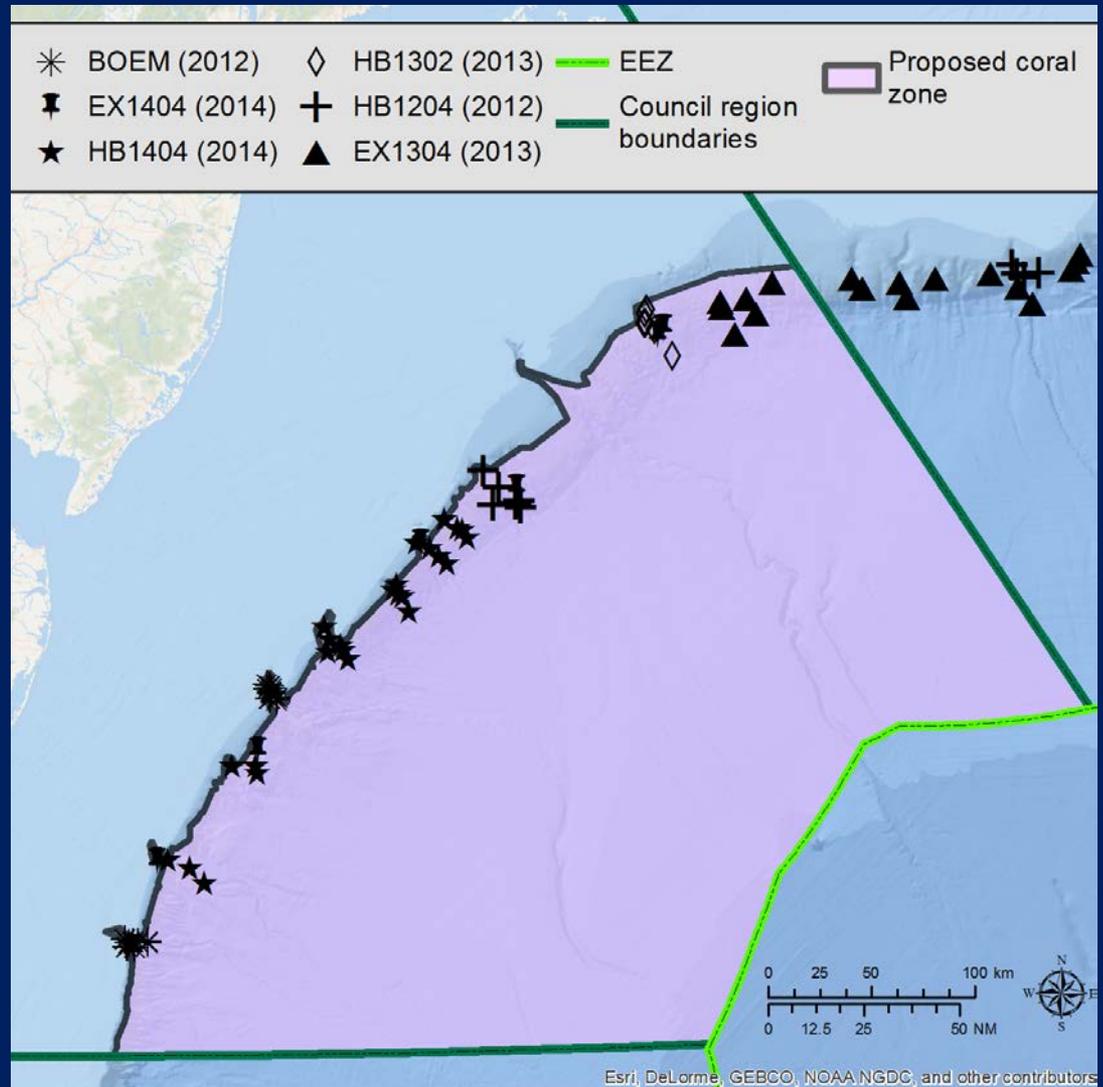
High Resolution Bathymetry

- ▶ In combination with habitat suitability model, helped refine key areas of importance for corals on finer spatial scale

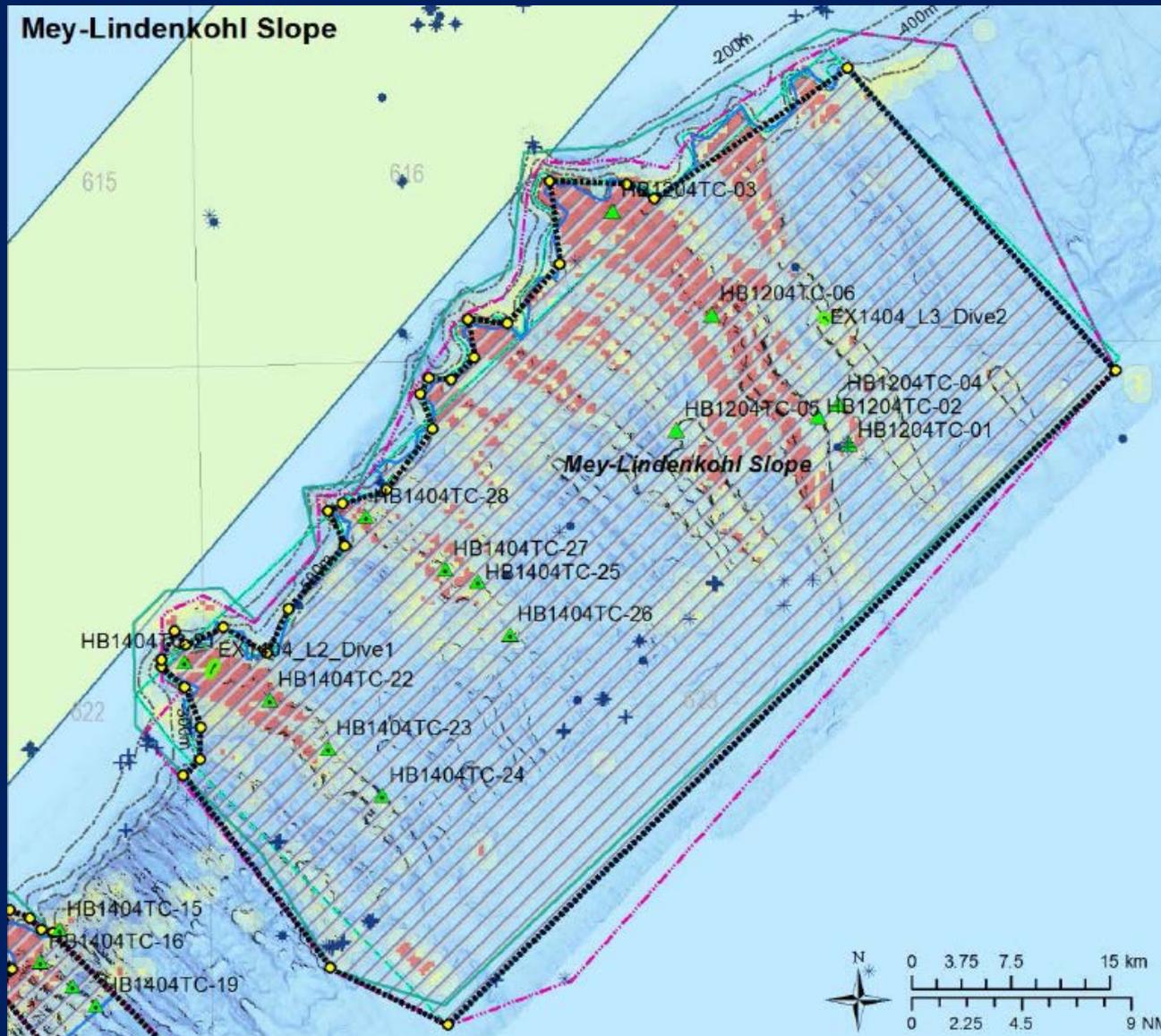


Recent Surveys: 2012-2014

- NOAA Deep Sea Coral Research & Technology Program
- BOEM
- NOAA OER Okeanos Explorer



Limited Fishing Data & Competing Boundary Proposals



Collaborative Boundary Workshop

- ▶ April 2015
- ▶ Goal: reconcile multiple spatial options for discrete zones; illuminate tradeoffs between coral protection and economic impacts
- ▶ Participants:
 - Council fishing industry and ecosystems advisors
 - Coral and habitat experts
 - Additional fishery stakeholders
 - Council and NMFS representatives

Collaborative Boundary Workshop



Collaborative Boundary Workshop

- ▶ Interactive evaluation and negotiation of boundaries for all 15 proposed discrete areas
- ▶ Consensus boundaries developed for all 15 discrete zone areas
- ▶ Council's final action incorporated workshop discrete zone boundaries into final preferred broad zone

Outcome

- ▶ Council nearly unanimously adopted workshop boundaries and unanimously approved amendment
- ▶ New coral data products and collaborative boundary process were key to buy-in and support

Potential Future Work

- ▶ Revisit red crab gear impacts and exemption
- ▶ Address lobster gear impacts?
- ▶ Refine coral zones using new observations/
higher resolution modeling



Thank You

- ▶ MAFMC leadership, members, and staff
- ▶ Rick Robins (former Council chair) and Warren Elliott (current Council vice-chair)
- ▶ MAFMC advisory panels and other industry and NGO collaborators
- ▶ Coral amendment team members at GARFO and NEFSC
- ▶ Michelle Bachman/NEFMC staff
- ▶ Dr. Martha Nizinski/NOAA NMFS
- ▶ Dr. Sandra Brooke/FSU
- ▶ Dr. Steve Ross/UNCW
- ▶ Dr. Brian Kinlan/NOAA NCCOS
- ▶ NOAA Deep Sea Coral Research and Technology Program
- ▶ NOAA Office of Exploration and Research
- ▶ BOEM
- ▶ NOAA National Centers for Coastal and Ocean Science