



# **5-Year Comprehensive Research Priorities: 2020 – 2024**

Durham, NC  
*October 7, 2019*

# Background

- 2006 MSA reauthorization requirement for each Council
  - Priorities should address fisheries, fisheries interactions, habitat and other areas necessary for management purposes
  - NOAA Fisheries and regional science center to consider when developing its priorities and budget



# Background



Mid-Atlantic Fishery Management Council

## Comprehensive Five Year (2016-2020) Research Plan

Approved December 7, 2015

### Introduction

The Magnuson Stevens Reauthorization Act of 2006 requires that each Council develop a five-year research priority plan. The Mid-Atlantic Fishery Management Council (Council), in consultation with its Scientific and Statistical Committee, first developed a research plan to meet this requirement in 2008 through examination of research needs identified in numerous stock assessments, Council FMP/Amendment documents and through the Council's Research Set Aside Program.

Since then, the Council embarked on a Visioning Project to map out the future course of marine fisheries management in the Mid-Atlantic region. The Visioning Project resulted in the development of the Council's Strategic Plan (<http://mafmc.org>) which outlines the Council's strategies for implementing the Council's vision for improved federal fisheries management in the Mid-Atlantic. A central theme that emerged from this exercise was the lack of public confidence in the data and science that drive fishery management decisions. As a result, one of the major goals of the Council's Strategic Plan is to ensure that Council management decisions are based on timely and accurate scientific data that are analyzed and modeled in a manner that improves management performance and build stakeholder confidence. To this end, the Council's intent is to expand cooperative research and rebuild stakeholder confidence in the data and analyses which support its management programs. This updated research plan is responsive to and organized around key themes/elements articulated in the Strategic Plan relative to improving the timeliness and accuracy of information used in the management of marine resources under the purview of the Council.

### Stock assessment improvement

Improvement of the data and analyses supporting the stock assessment process in the Northeastern US is the Council's top priority. Scientific uncertainty is generally a function of the quality of the information input into stock assessments and directly impacts the specification of catch limits and hence the amount of fish

- Priorities developed with SSC input
- First plan in 2008
  - Research recommendations from assessment reports
- Current research priorities approved in 2015 and covers 2016 – 2020
  - Responsive to feedback from Visioning Project and first Strategic Plan → key research themes/elements
- Moved up development of draft priorities to align with new St. Plan, 5-Year Agreement, others

# Review of Current 5-Year Priorities

- Council supported projects from 2015 – 2018
  - 21 projects – covering all 6 FMP and 9 specific species
  - 14 projects addressed species specific (10) or priority themes (4)
  - 19 projects helped inform, or likely to inform, management action or assessment
- Utility to NEFSC more difficult to assess
  - Various strategic plans – similarity with a number of priority themes and needs





# Key Research Priority Themes

## Existing Themes

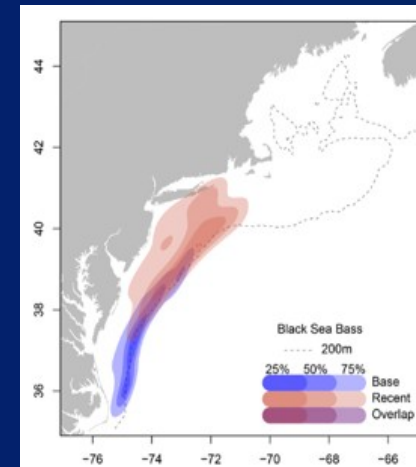
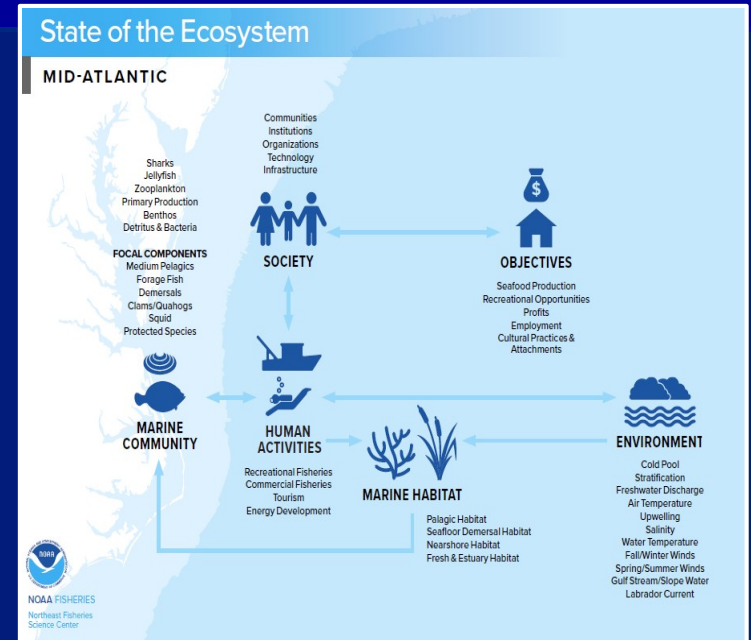
- Stock assessment improvement
- Research to support measures to reduce/eliminate discards
- Collect and incorporate social and economic data into fishery management decision process and stabilize yields
- Evaluation of existing allocations to fishery sectors



# Key Research Priority Themes

## New/Additional Themes

- Recreational data collection
- Collect ecosystem data and development of ecosystem tools and management strategies to support EAFM initiatives
- Climate change impacts on stock productivity and distribution shifts



# Species/FMP Specific Priorities

## Process

- Part of specs process and development of FPR
- Input from AP, MC, SSC, assessment lead, staff
- Feedback received, SSC reports, assessment documents, other reports

## Organization

- Currently identified by category and primary and secondary priority identified
- Short-term/smaller scale and long-term/larger scale
- Prioritized under each category

## Goals

- Comprehensive approach with greater input
- Tactical and strategic
- Increased utility for Council and management/science partners

# SPINY DOGFISH

## SHORT-TERM/SMALLER SCALE

25. Integrate recent information on the efficiency of the NEFSC survey gear as it relates to: distribution of spiny dogfish beyond the current NEFSC trawl survey geographic footprint (including inter annual differences); gear efficiency; depth utilization within the footprint; distribution within the survey footprint under different environmental conditions.
26. Explore model-based methods to derive survey indices for Spiny Dogfish
27. Investigate alternative stock assessment modeling frameworks that evaluate: the effects of stock structure; distribution; updated biological information such as sex ratio and spiny dogfish productivity; state-space models; and sex-specific models.
28. Evaluate the utility of the study fleet information as it relates to issues identified under priority #25 above.

## LONG-TERM/LARGER SCALE

29. Research opportunities to increase domestic and/or international market demand.
30. Expand information on the efficiency of the NEFSC survey gear as it relates to: distribution of spiny dogfish beyond the current NEFSC trawl survey geographic footprint (including inter annual differences); gear efficiency; depth utilization within the footprint; distribution within the survey footprint under different environmental conditions.
31. Continue aging studies for spiny dogfish age structures (e.g., fins, spines) obtained from all sampling programs (include additional age validation and age structure exchanges), and conduct an aging workshop for spiny dogfish, encouraging participation by NEFSC, Canada DFO, other interested state agencies, academia, and other international investigators with an interest in dogfish aging (US and Canada Pacific Coast, ICES).
32. Evaluate ecosystem effects on spiny dogfish acting through changes in dogfish vital rates.



# Potential Future Direction

- Given evaluation and feedback – propose short- and long-term changes and approaches
  - Annual or biennial review of current priorities list
  - Review process to track progress in addressing priorities
    - What was/was not completed and why
  - Development of a comprehensive research priorities **plan**
    - Proposed changes to priorities document is a start
    - Review and evaluation across the region
    - Identify similarities, highlight differences
    - Communication and coordination
    - Leverage resources
    - Process to be successful



# Meeting Objectives and Next Steps

- Provide feedback on:
  - Draft research themes
  - Organization and prioritization of species/FMP species priorities list
  - Initial thoughts on future direction
- Next Steps:
  - Staff to update and draft themes and priorities list
  - Council review and approval at December 2019 meeting
  - Potential inclusion of future steps in Strategic Plan and Implementation Plan