



Ecosystem Approach to Fisheries Management: The Mid-Atlantic Fishery Management Council Perspective

Council Member Ongoing Development Meeting

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November 15, 2022

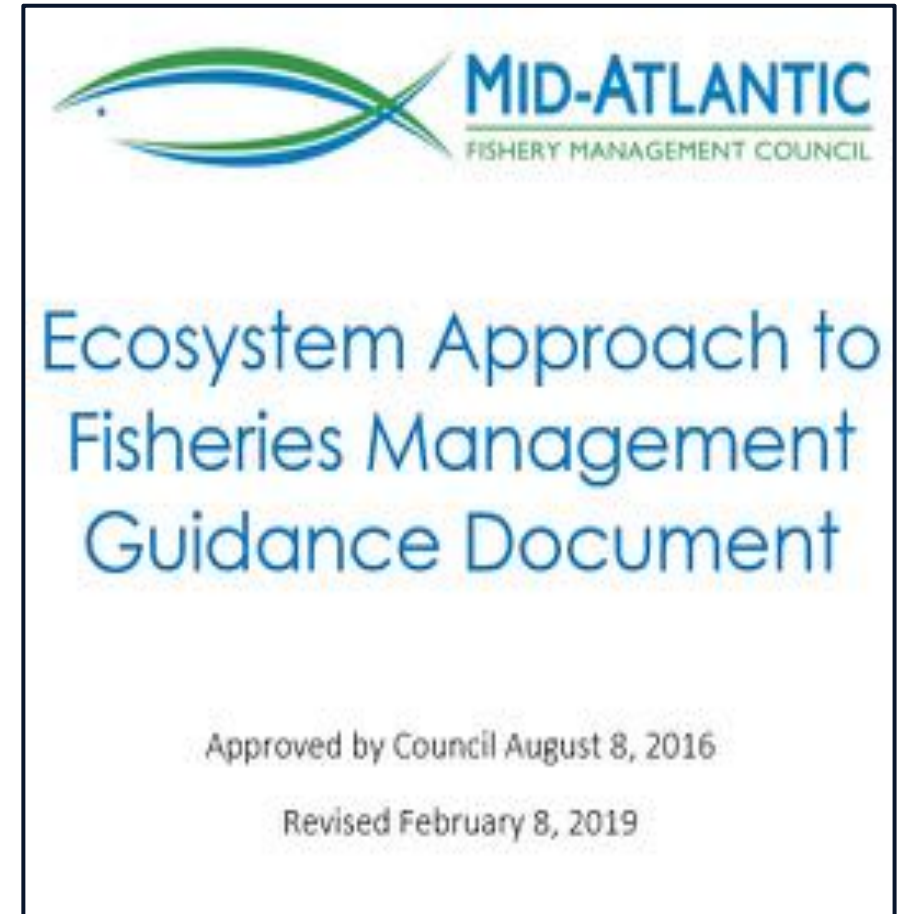


MAFMC Visioning Project and Strategic Plan

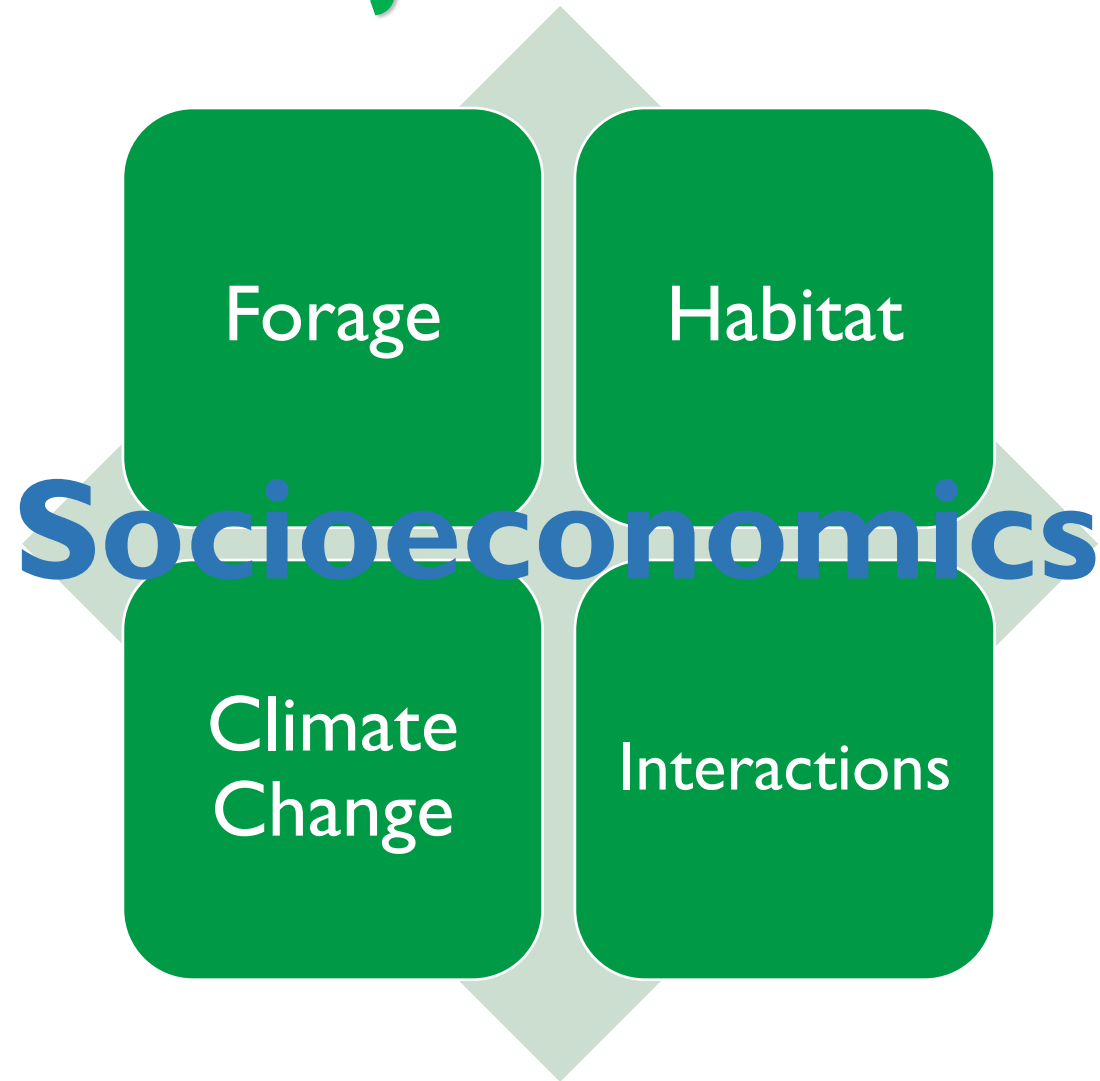
- Ecosystem related issues ranked high on the list of concerns raised by stakeholders across all user groups
- EAFM development was identified as a priority in the Council's **2014-2018 Strategic Plan**
 - "A non-regulatory umbrella document intended to guide Council policy with respect to ecosystem considerations across existing Fishery Management Plans"



EAFM Guidance Document

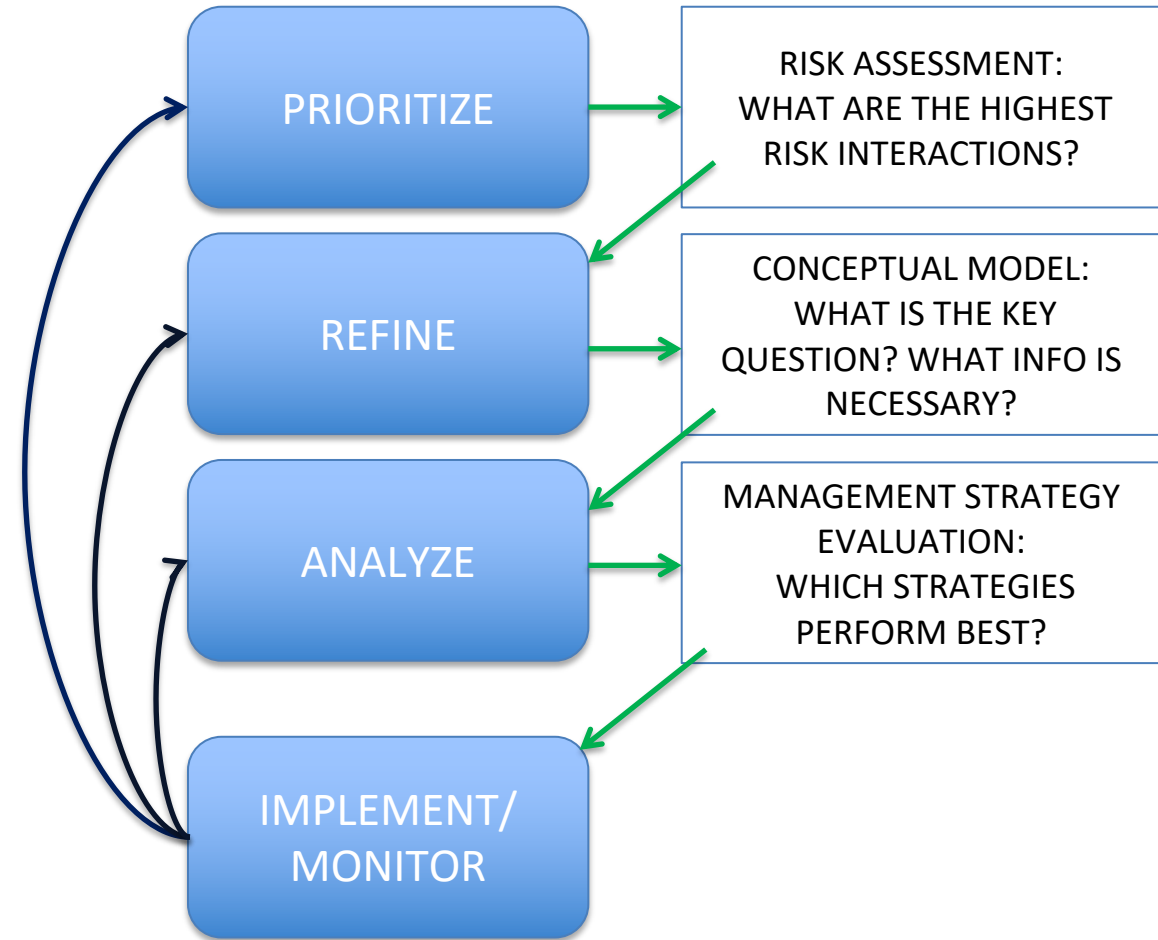


EAFM Guidance Document: Major Themes



Council's EAFM Decision Framework

- Developed a strategic, deliberative and structured process
 - Goal of incorporating species, fleet, habitat and climate interactions into management
 - Planning tool to help Council transition and incorporate EAFM approaches
 - Not an end to itself



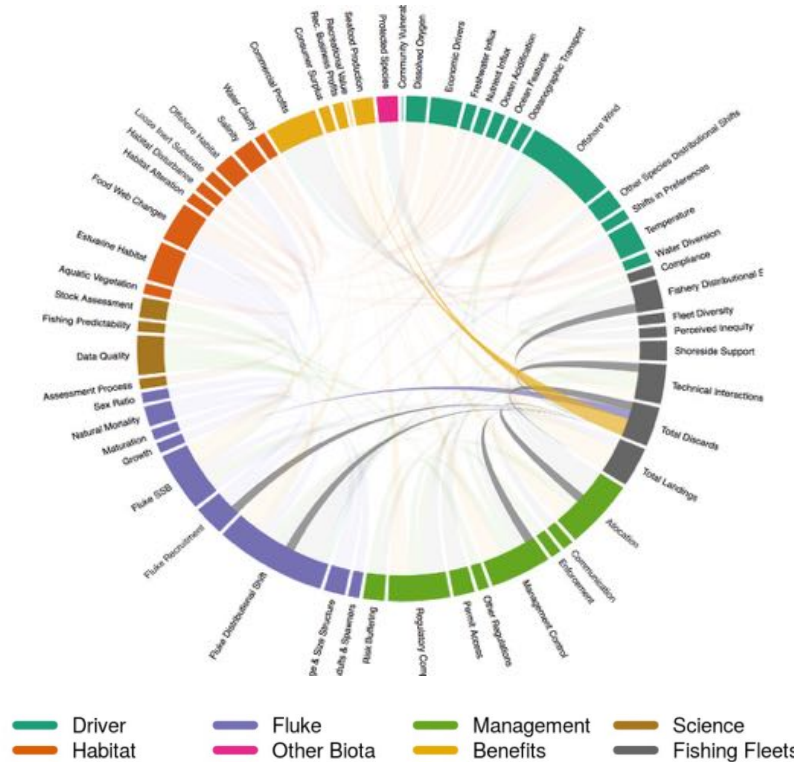
Source: Sarah Gaichas,
http://www.mafmc.org/s/3_Habitat_in_IEAs_Gaiches.pdf

Implementing the Decision Framework

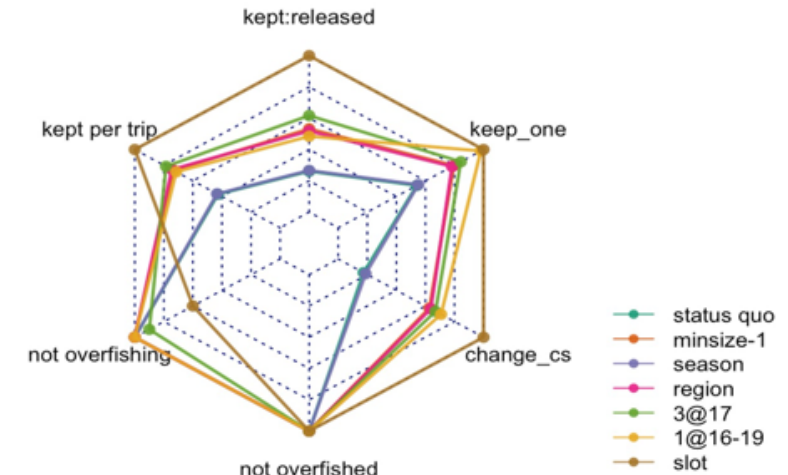
Step 1 – Prioritize with risk assessment (2017)



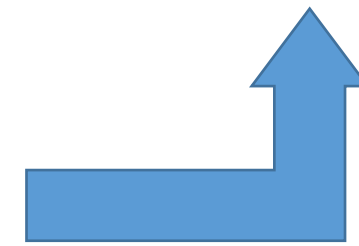
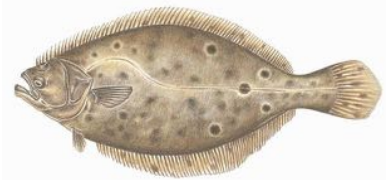
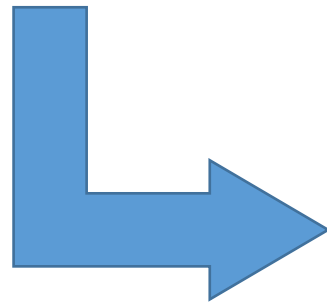
Step 2 – Refine with conceptual model development (2019)



Step 3 – Analyze with MSE (2022)



Summer flounder Identified as most high-risk fishery



Identify and evaluate management Procedures to reduce recreational discards and convert to landings

Unmanaged Forage & Fisheries

- **Unmanaged forage amendment** - goal of proactively protect and conserve currently unmanaged forage species
 - In 2016, designated 16 species and species groups as ecosystem component species (over 50 species in total)
 - Prohibits new, expansion of existing or directed commercial fisheries in Mid-Atlantic
 - Established an incidental possession limit of 1,700 lb for all species combined
- **Chub mackerel amendment** – added to the Atlantic Mackerel, Squid and Butterfish FMP in 2020
 - Allows for commercial fishery with a catch limit and a variety of management and monitoring requirements
 - Recently completed chub mackerel research on importance of species in diet of HMS species (tunas and billfishes)
- **Unmanaged landings report** – annual report and review of trends and landings of unmanaged fisheries



Fisheries Habitat

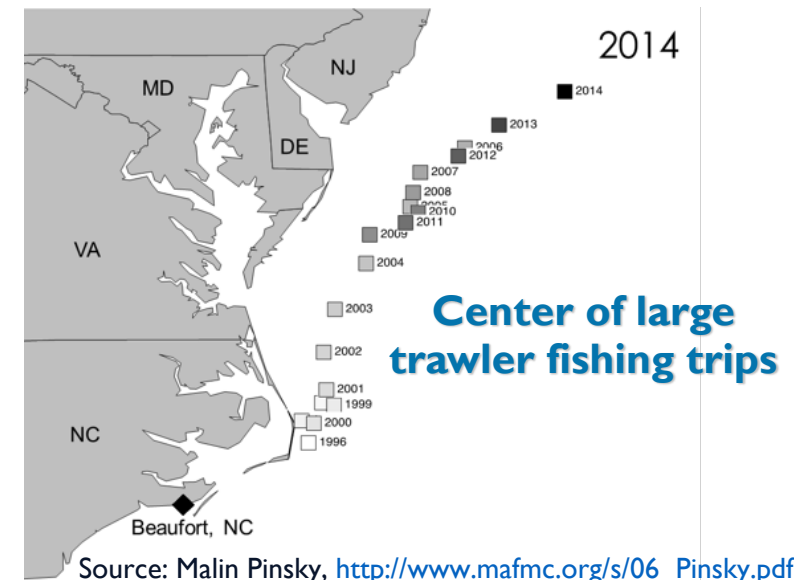
- [Northeast Regional Marine Fish Habitat Assessment \(NRHA\)](#) – a collaborative effort to describe and characterize estuarine, coastal, and offshore fish habitat distribution, abundance, and quality in the Northeast
 - [NRHA Data Explorer](#) – an R-shiny app to explore data on trends in fish species distribution at state and regional scales – survey and model developed. Includes habitat-species vulnerability matrix.
- [Essential Fish Habitat Amendment](#) – using new habitat science information to improve EFH designations and support the Council’s fish habitat conservation efforts



Image Source: NOAA Fisheries and americanoceans.org

Climate Change and Variability

- East Coast Climate Change Scenario Planning – coastwide process to explore jurisdictional and governance issues related to climate change such as changes in stock distribution and availability
- Project: *Short-term forecasts of species distribution for fisheries management*
 - Collaboration with Rutgers Univ. to develop and test new methods and model to predict short-term (1-10 year) climate induced distribution shifts
 - Focal species: summer flounder, spiny dogfish, Illex squid, and grey triggerfish
- NEFSC Mid-Atlantic State of the Ecosystem reports – provided annually to Council to give an overview of ecosystem-level indicators that evaluate the status and trends of ecological, environmental, economic, and social components of the ecosystem



Conclusions

- EAFM emphasizes an integrated approach to habitat, sustainability, multi-species interactions, connectivity, and dynamic change
- We are in transitional state – data and science are incomplete and management change takes time
- Need to move forward both strategically and systematically, not radically
- Deliberate, stepwise, and collaborative approach will have better outcomes
- Significant investment with Council, scientists and stakeholders
 - Crucial for support, trust, and buy-in
 - Need for ecosystem “champions” within all groups



Questions??

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