

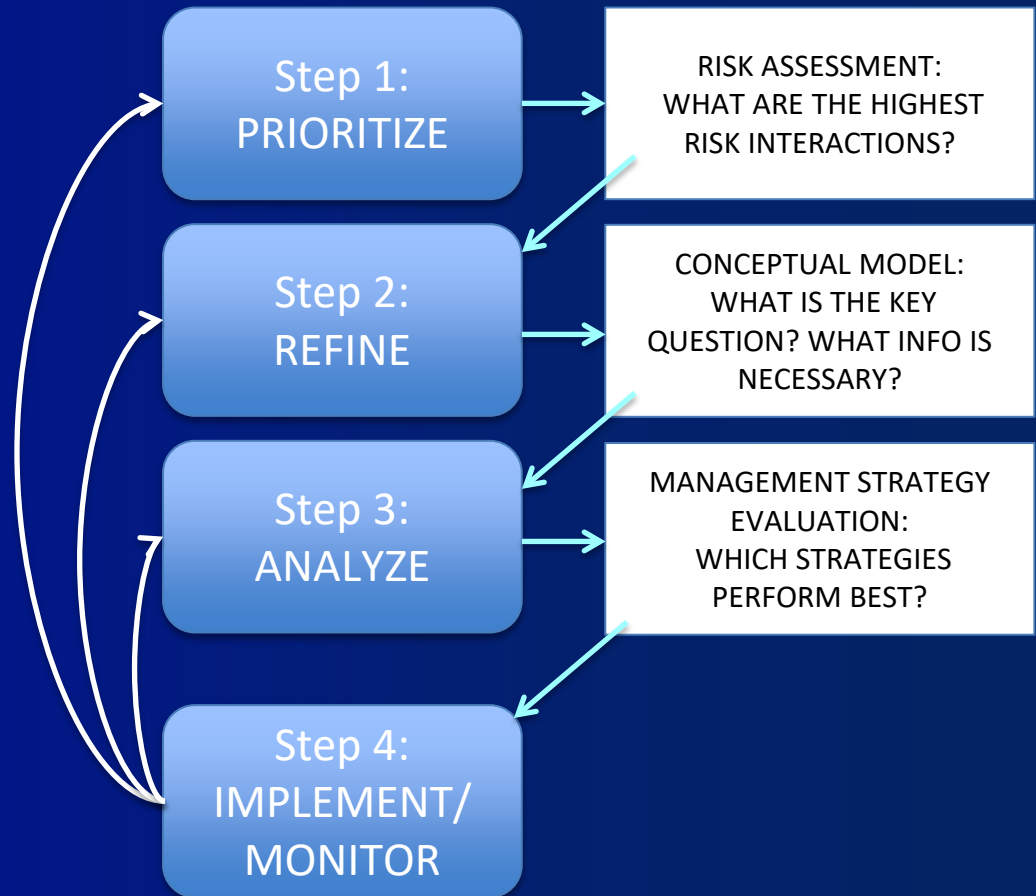


# **EAFM Activities Update**

*October 6, 2020*

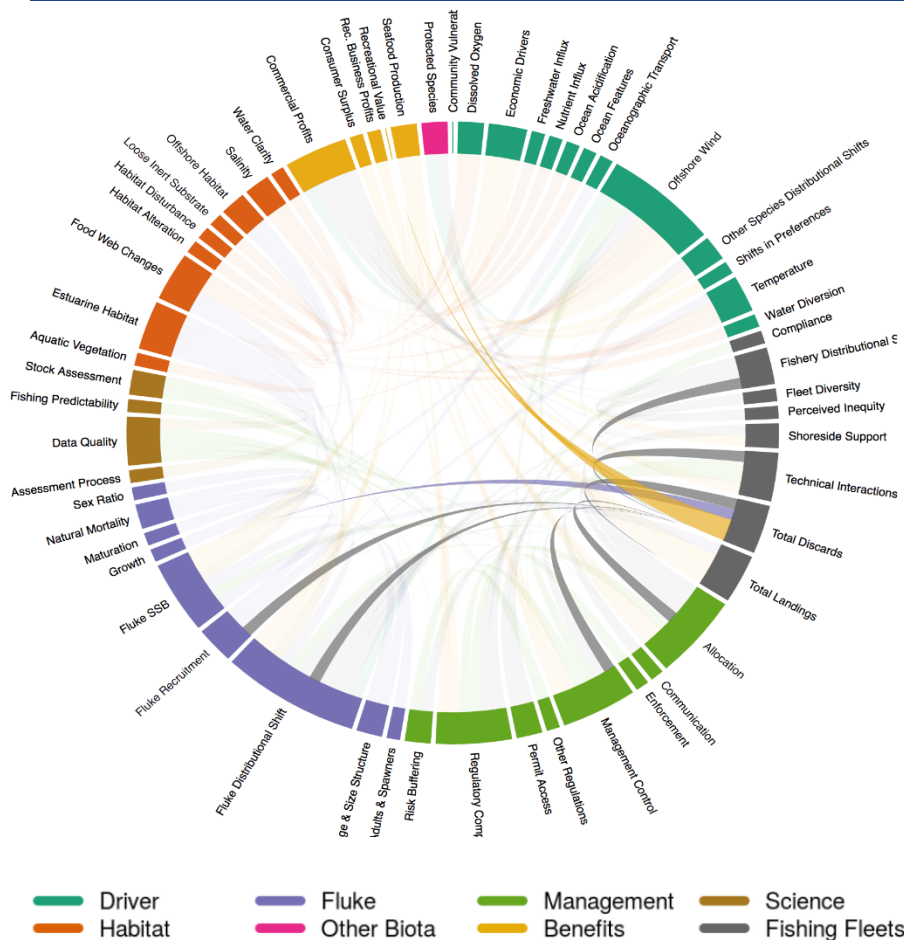
# Council EAFM Decision Framework

- 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
- Completed **Step 1** (2017) and **Step 2** (2019)



Source: Sarah Gaichas,  
[http://www.mafmc.org/s/3\\_Habitat\\_in\\_IEAs\\_Gaiches.pdf](http://www.mafmc.org/s/3_Habitat_in_IEAs_Gaiches.pdf)

# Conceptual Model Management Question



Q. Evaluate the biological and economic benefits of minimizing summer flounder discards and converting discards into landings in the recreational sector. Identify management strategies to effectively realize these benefits.

- Opportunity to align EAFM work with traditional Council management process
- Management challenges to address and reduce regulatory discards
- EAFM issue and focus – seven linked risk factors: Management, Summer Flounder Stock, Science, Fishing Fleets, and Benefits

## Step 3:

ANALYZE



**MANAGEMENT STRATEGY  
EVALUATION:**  
WHICH STRATEGIES PERFORM BEST?

- Conceptual model provided the initial scoping of the MSE
  - Identified management goal and objectives
  - Potential data availability and modeling approaches
- MSE uses simulation model(s) to test management strategies abilities to meet management objectives
- Use an inclusive stakeholder process to identify clear objectives, performance metrics, and uncertainties
- Develop and evaluate trade-offs of potential management strategies the Council and ASMFC Board can implement

# MSE Technical Work Group

- Similar approach and membership as used in conceptual model process
- Diverse interdisciplinary and inter-agency membership – additional MSE expertise

Name	Affiliation	Name	Affiliation
Lou Carr-Harris	NEFSC	Emily Keiley	GARFO
Kiley Dancy	MAFMC staff	Jeff Kipp	ASMFC
Geret DePiper	SSC/NEFSC	Doug Lipton	NOAA Fisheries
Jon Deroba	NEFSC	Brandon Muffley	MAFMC staff
Gavin Fay	SSC/UMass Dart.	Mark Terceiro	NEFSC
Sarah Gaichas	SSC/NEFSC	Mike Wilberg	SSC/Univ. of MD
Jorge Holzer	SSC/Univ. of MD	Greg Wojcik	CT DEEP/ASMFC TC

# Technical Work Group Tasks

- Help develop MSE products and materials
  - Includes development and testing of simulation model(s)
- Identify stakeholders and help assist with outreach opportunities
- Work with Council and stakeholders in communicating goals and outcomes of MSE (e.g., serve as a facilitator during stakeholder workshops)
- Support contract analyst and facilitator

# Work Group Progress

- First meeting on May 29<sup>th</sup>
  - Lessons learned, prior experiences
  - Goals, expectations, and strategy for MSE success
  - Process for meaningful and appropriate stakeholder engagement
- Second meeting on September 1<sup>st</sup>
  - Finalized agenda and details of kick-off webinar
  - Identify webinar goals, objectives, and participant expectations
- Series of smaller sub-group meetings in between

# MSE Stakeholder Facilitator



- Use of a facilitator with MSE expertise, highly recommended
  - Independent and from outside region
- Contracted with Dr. Jonathan Cummings
  - Post-doc at UMass Dartmouth
  - 10+ years in facilitation, MSE, and structured decision making
  - Experience with a variety of MSE projects, including a current project on New England groundfish
- Work with technical WG to develop workshop agenda and materials, ensure workshop objectives achieved, collaborate on simulation and trade-off analysis



# AP Kick-Off Webinar and Mock Workshop

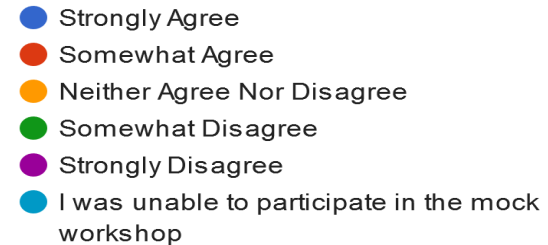
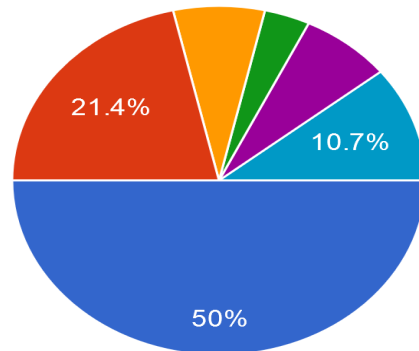
- Joint EOP and Council and ASMFC Summer Flounder, Scup, and Sea Bass Advisory Panels
  - Focus on stakeholders likely to participate in MSE project and familiarity with fishery
- Held September 22, 2020 from 9:00 – 12:00
- Goals for meeting:
  - Introduce MSE concepts, process, expectations
  - How MSE will be used within the EAFM process
  - Simulate a condensed MSE workshop – familiarity with participant role
- 55 participants with diverse representation

# Follow-Up Survey and Solicitation

- Feedback on experience and value of webinar and workshop
  - Help work group and facilitator help plan future workshops
- Solicitation of interest for workshop participants

4. The mock workshop, example issue, and breakout sessions were helpful and effective tools and I was able to fully participate.

28 responses

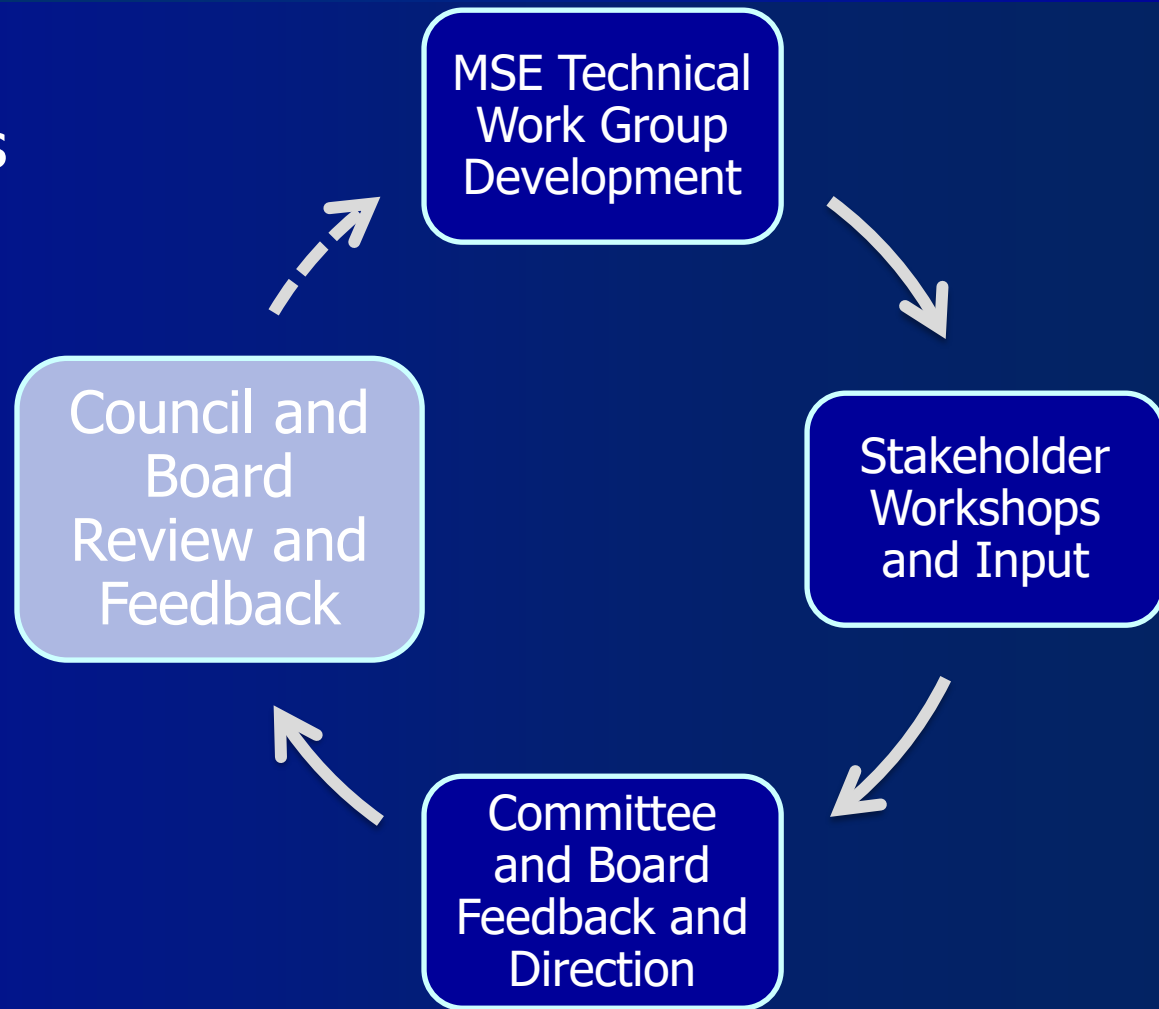


# General Approach and Next Steps

- Anticipating 3 stakeholder workshops (next 12 – 15 months)

- W1: Identify management objectives, performance metrics, and uncertainties
- W2: Input on initial model development and results
- W3: Review updated model and “final” results

- Iterative process with Committees/Council/Board



# Anticipated Timeline

<b>Task/Activity</b>	<b>Timeframe</b> (subject to change)
Finalize technical work group membership and initial meeting	May 2020
Kick-off webinar and mock workshop with Council and ASMFC advisory panels	September 2020
Initial stakeholder meeting(s) and surveys to elicit objectives/performance metrics/uncertainties; data synthesis, initial model development and linking existing models; interim stakeholder and Committee meetings	November 2020 – May 2021
Simulation testing of management strategies; model refinement as necessary; deliver interim results at stakeholder and Committee meetings	June 2021 – December 2021
Continue with MSE analysis and stakeholder meetings, as needed	January 2022 – March 2022
Review final results; Council and ASMFC Board considers potential management alternatives and action to address recreational summer flounder discards	April 2022

# EAFM Scientific Products and Outreach

- Manuscripts:
  - B. Muffley et al. 2020. In press. *There is no I in EAFM: Adapting Integrated Ecosystem Assessment for Mid-Atlantic Fisheries Management*. Coastal Management.
  - G. DePiper et al. 2020. In review. *Learning by doing: Collaborative conceptual modeling as a path forward in Ecosystem Based Management*. ICES J. of Marine Science
- Presentations:
  - 25<sup>th</sup> Biennial Coastal and Estuarine Research Federation (CERF) Conference
  - NOAA EBFM Science Seminar Series
  - Gulf Council Ecosystem Technical Committee

# Other EAFM Related Activities

- Project: *Short-term forecasts of species distributions for fisheries management*
- Co-PI with M. Pinsky and A. Fredston, Rutgers University
- Develop and test new methods and models to predict short-term (1-10 year) climate induced distribution shifts

## Mismatch in timescales



Figure by Pinsky – from July 1, 2020 Lenfest webinar presentation

# Short-Term Distribution Project (cont.)

## Research Questions

1. Can dynamic range models forecast changes in species distributions?
2. At what time-scales do forecasts have skill (1- 10 years)?
3. Does information on **fishing** pressure improve forecasts of species distributions?

## Focal Species

- Summer Flounder, Illex Squid, Spiny Dogfish, Gray Triggerfish

# Short-Term Distribution Project (cont.)

- Recent project progress
  - Model fitted to spiny dogfish data - fine-tuning and testing
  - Manuscript describing model methods, structure, and application to test case
- July 1<sup>st</sup> webinar hosted by Lenfest Ocean Program
  - Overview of project need, model approach, and potential areas of application
  - Over 250 participants – positive feedback and interest
- Anticipated timeline
  - 2020-2021 – finish model development and forecast skill evaluation
  - 2022 – incorporate fishing pressure in model; complete project



# Meeting Goals

- Today, just an update on EAFM activities
- No specific Council action needed
- Offer any feedback or direction

**Questions??**