

Ecosystem Technical Committee Meeting Summary
March 2, 2020
Tampa, FL

The meeting of the newly appointed Ecosystem Technical Committee (Committee) was convened at 8:30 am on March 2nd, 2020. The agenda for this meeting was adopted without change. Dr. Mandy Karnauskas was elected as Chair, and Mr. Casey Streeter as Vice-Chair.

Building a Fishery Ecosystem Plan for the Gulf of Mexico

Dr. Mandy Karnauskas presented the initial steps that have already taken place to develop ecosystem priorities and provide a foundation for a Fishery Ecosystem Plan (FEP) for the Gulf of Mexico. Currently, fishery management operates largely in a single-species framework, which does not necessarily account for interactions between species (both trophic interactions and fleet interactions) and outside factors (e.g., anthropogenic, environmental events). An FEP could consider interactions between environmental factors and species in terms of cumulative effects and social and economic effects. More systematic consideration of these ecosystem-level effects and interactions would help ensure that individual Council actions contribute to overall system goals (e.g., reducing regulatory discards, reducing conflict, maintaining fisheries productivity). In order to develop a useful FEP, it is crucial to have a clear vision and end goals that will help maintain the focus of future efforts.

Dr. Karnauskas described some ongoing projects that can help inform the Gulf FEP. For example, the Southeast Fisheries Science Center (SEFSC) has created an Ecosystem-Based Fishery Management (EBFM) Road Map that provides guidance on how to implement ecosystem principles into actionable steps. The SEFSC has also held stakeholder workshops to identify stakeholder concerns about factors affecting their fishery, changes to the ecosystem, and their effect on their business practices. These results have been used to develop socio-ecological system models of how the fisheries operate and how different factors are related. Another source of information is the Ecosystem Status Report for the Gulf of Mexico (first published in 2013 and updated in 2017), which outlines physical, biological, social and economic indicators that provide an understanding of ecosystem trends over time.

The Committee agreed that the FEP should have a strong focus on underlining cumulative effects, especially in the face of factors outside of the Council's control. The Gulf FEP was also identified as a platform for the Council to provide recommendations to other agencies focused on management outside of the scope of fisheries. For example, the Committee discussed issues such as nutrient input from inland sources and its impact on water quality and habitat, which could result in adverse effects to fisheries.

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

Mr. Brandon Muffley presented the Mid-Atlantic Fishery Management Council's (MAFMC) effort to create a guidance document that incorporated ecosystem-level factors and their influence into fishery management. The MAFMC organized a visioning project to gather

information from stakeholders. The results from this effort led to the MAFMC to develop a non-regulatory document compiling all the MAFMC's ecosystem activities including guidance about how to incorporate this information into the Council process. The MAFMC's approach still follows a single-species management structure, while systematically incorporating ecosystem considerations into the management program.

The guidance document is divided into four major themes: forage species, habitat, climate change, and ecosystem-level interactions. The Forage section evaluates trade-offs for the MAFMC's managed forage species. The Habitat section is focused on strengthening Essential Fish Habitat designations and understanding the link between habitat and fisheries productivity. The Climate Change and Variability section emphasizes the potential changes in species distribution and migration patterns, and changes in fleet dynamics as a result of climate variability. The Interactions section which looks at what are the implications of interactions (e.g., biological, social, economic) and how can the MAFMC integrate those issues within the Council's management structure.

The Committee requested more information about the determination of OY, if it was at a single-species level or system-wide. Mr. Muffley explained that OY would still be at a single-species level, but that it would depend on the Councils goals and whether or not other issues are being considered. For example, OY could vary depending on the habitat constraints on a particular species or economic perspective. Going through the steps of a risk assessment can provide guidance about how to weigh those factors that might affect OY.

The MAFMC has also incorporated a Risk Assessment process that engages Council members, Council Staff, the Northeastern Fisheries Science Center, and stakeholders (i.e., Advisory Panels) to evaluate threats to the fisheries and if the risks are being addressed appropriately. The results from the risk assessments help prioritize and select specific fishery elements that would benefit from management actions. From this process, the MAFMC decided to focus its Ecosystem Approach to Fisheries Management work on an evaluation of the biological and economic benefits of minimizing discards.

Discussion on the Regulatory Authority of the Gulf Council in the Context of Ecosystem Management

Dr. Nick Farmer led a discussion about how ecosystem information can be translated into actionable objectives that can be directly related to current fishery management approaches. He presented a list of management tools available to the Gulf Council and explained how effects of these strategies can be informed by ecosystem analyses and highlighted a number of potential scenarios. For example, increasing the minimum size limit of a fish species may require more effort to land a legal-size fish, which could potentially lead to increased bycatch of another species. Additionally, while connectivity between nearshore habitats and offshore fishery productivity is considered important, it is difficult to quantify how alterations to coastal habitats effect offshore fish harvest. Finally, he showcased a [web-based](#) application illustrating the utility of cooperative monitoring for spawning aggregations in the Gulf of Mexico (Gulf) as an example of a product that can aid future ecosystem-based management.

The Committee stated that several ecosystem considerations require interagency cooperation. The Council has previously commented on interagency activities as related to fisheries issues and the Committee agreed that the Gulf Council should continue engagement with other agencies. Also, the Committee recognized that global processes (e.g., climate variability, coastal development, etc.) may affect fisheries in the Gulf in a way that has not been observed in other regions. For example, the spatial characteristics of the Gulf limit the northward latitudinal migration—a response to warming waters—for those species that inhabit the northern waters of the Gulf. The Committee reiterated the importance of stakeholder input when considering ecosystem science for fisheries management similar to what had been done during the recent red tide event in southwest Florida. Council staff indicated that public testimony during the Council meetings would allow for stakeholder input throughout the development of an FEP for the Gulf.

Identifying a number of complexities associated in developing an FEP, the Committee decided to focus on constructing a vision statement to inform and focus the policy guidance document.

Proposed Fishery Ecosystem Plan Outline

Council staff presented a draft outline of what the FEP for the Gulf region could include. A similar version of this document was presented at the Council meeting of October 2018, where the Council recommended the establishment of an Ecosystem Technical Committee to help develop this document.

This portion of the meeting was focused on getting specific feedback about the goals and structure of an FEP for the Gulf. As a starting point, the Committee evaluated and discussed vision and mission statements incorporated by other fishery management councils for their ecosystem guidance documents.

Motion: to approve the following mission statement for the Gulf of Mexico Fishery Ecosystem Plan:

“To provide a framework for integrating ecosystem science into the Council’s decision making for long term ecological and socio-economic sustainability of Gulf of Mexico resources.”

Motion carried with no opposition

The Committee then proceeded to discuss the various ways an FEP could be structured in order to follow the mission statement. Recognizing that developing an FEP for the Gulf might take more than one meeting, the Committee explored the idea of including the following sections: Management, Ecological, and Socioeconomic. Each one of the sections should include specific goals.

*Management Section*Goals:

- Improve management decisions based on interactions among physical, biological, and socio-economic factors and reducing management uncertainty
- Document sources which affect (e.g., increase and decrease) fisheries productivity
- Inform the development of new and existing management
- Coordinate and consider ecosystem interactions information across FMPs
- Identify and prioritize research needs
- Incorporate real-time data and fishery observations into management process
- Identify benchmarks/indicators of FEP success

Biological/Ecological Section

Goal: To maintain or enhance biological diversity and fisheries productivity in the Gulf of Mexico over the long term.

Objectives:

- Reduce waste in the form of incidental dead discards
- Minimize protected species interactions
- Maintain or enhance the forage base for trust resources
- Consider the functional role of species
- Quantify and mitigate impacts of harmful invasive species
- Effectively include environmental factors in the fishery management process
- Attempt to obtain system-wide optimum yield that accounts for species and fleet interactions and prevents ecosystem overfishing
- Document sources which affect (e.g., increase and decrease) fisheries productivity (Note: insert habitat concerns here)
- Maintain adequate habitat that will support healthy fish, water quality, benthic substrate
- Maintain and improve ecosystem health

Socioeconomic Section

Goal: To maintain or enhance the [blue economy](#) for the Gulf of Mexico stakeholders

Objectives:

- Help define policy success based on other marine use sectors (e.g., tackle shops, tourism)
- Help define policy success in non-monetary terms (e.g., protecting coastal communities, heritage, working waterfronts, etc.)
- Maintain or enhance economic growth and business stability with respect to the supply chain and new-entrant fishery
- Understand preferences and informing trade-offs (e.g., trade-off between catch amount and consistency)
- Consider human health impacts (e.g., red tide, use of dispersants, oil spill residue, pollution, mercury levels, etc.)
- Promote safety of human life at sea
- Reduce conflict between fishing user groups (e.g., aquaculture vs. commercial fishing)
- Increase consumer confidence in the sustainability of Gulf fisheries

Council staff will incorporate the feedback from the Ecosystem Technical Committee and other ecosystem references discussed at the meeting to provide another draft outline at the Council meeting in June 2020.

The meeting was adjourned at 5:00 pm on March 2nd, 2020.

Participants

Technical Committee Members

Mandy Karnauskas, Chair
Casey Streeter, Vice-Chair
Cameron Ainsworth
Clifford Borgstedt
Eric Brazer, Jr.
David Chagaris
Michael Drexler
Robert Leaf
Paul Sammarco
Michael Jepson

Council Member

Tom Frazer

Council Staff

Natasha Méndez-Ferrer
Camilla Shireman
Carrie Simmons
Lisa Hollensead
John Froeschke

Other Attendees

Kelli O'Donnell	NOAA Fisheries
Steven Atran	Retired Gulf Council Fishery Biologist
Joshua Kilborn	University of South Florida
Patrick Graham	University of Southern Mississippi
Meg Oshima	University of Southern Mississippi
Brandon Muffley	Mid-Atlantic Fishery Management Council
Catherine Burger	Ocean Conservancy
Chad Hanson	Pew Charitable Trust