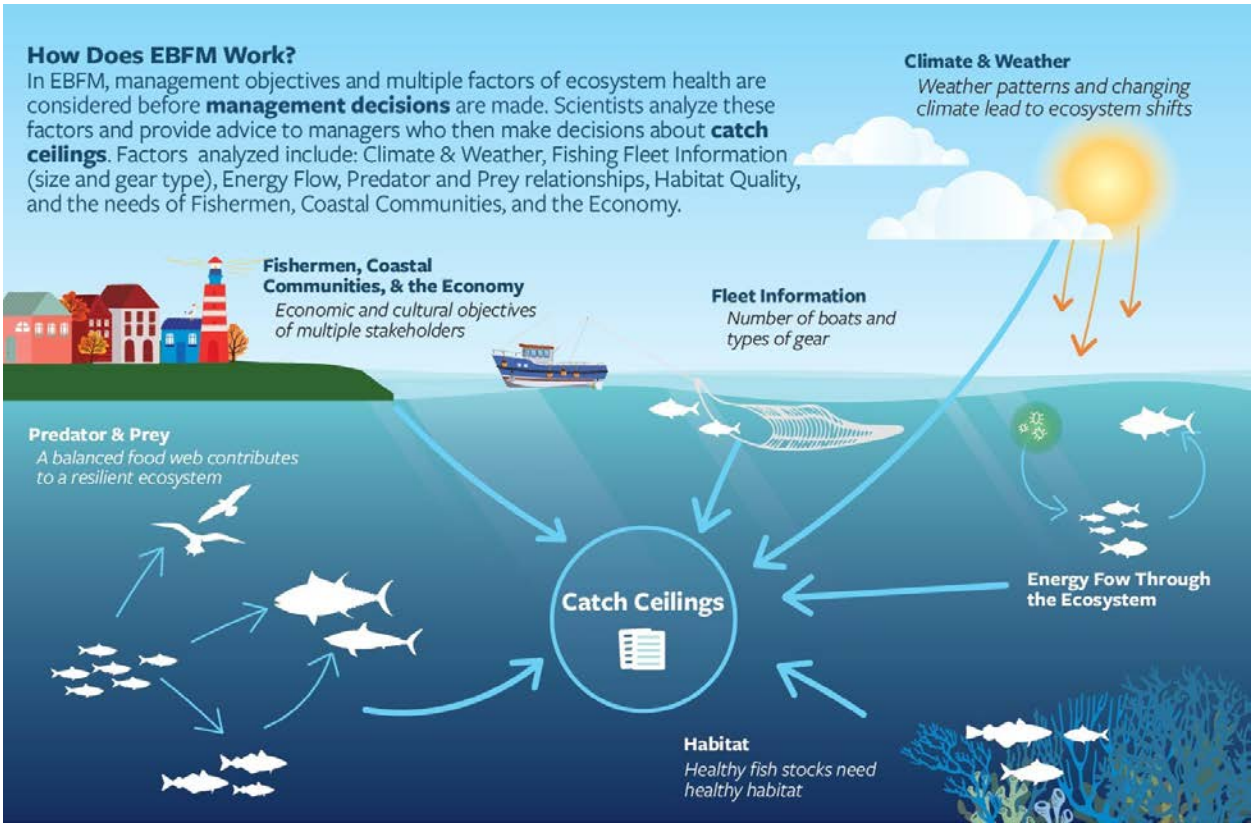
FINAL REPORT

ECOSYSTEM BASED FISHERY MANAGEMENT (EBFM) OUTREACH
In Support of
UPCOMING NEFMC WORKSHOPS

August 26, 2022
Oceanvest, LLC



EXECUTIVE SUMMARY

Oceanvest spoke to more than 40 fishing stakeholders to promote Ecosystem-Based Fishery Management Workshops. Hosted by the New England Fishery Management Council, these workshops are slated to be held in the fall of 2022. Conversations included commercial fishermen, seafood processors, fishery scientists, and representatives from non-governmental organizations who work on issues of fisheries and ocean conservation. Conversations with stakeholders ranged from enthusiasm to skepticism about the potential application of EBFM to Georges Bank, but nearly all stakeholders expressed support for the initiative and for the workshops. Key topics that emerged from the conversations included legal and jurisdictional issues; permitting; biomass floors to protect "overfished" species; data science approaches to inform dynamic management decision-making; and the integration of human dimensions (e.g., fleet, port) into the management strategy. Ultimately, stakeholders wish to understand how the alternative EBFM compares and contrasts to the current fisheries management system(s).

METHODOLOGY

The New England Fishery Management Council ("NEFMC" or "Council") engaged Oceanvest, LLC to conduct research and outreach to potential stakeholders to inform the development of workshops on the topic of ecosystem-based fishery management ("EBFM"). The contract scope also included assisting in the development of the workshop agenda and working with invited experts to prepare presentations for the workshops.

Oceanvest began work on the project in late January 2022 and the formal kick off meeting with the EBFM Committee occurred on February 10th.

One of the first tasks was to build and update a database of potential stakeholders who may be interested in attending the workshops and learning more about the Council's effort to develop a Fishery Ecosystem Plan (eFEP) for George's Bank. The list included individuals who have participated in the EBFM development process over the years, and other potential stakeholders identified by Andy Applegate with the New England Fishery Management Council and Tom Balf with Oceanvest. This master database, which continues to be updated over the course of the project, included the following:

Stakeholder Group/Database	Numbers
Georges Bank Fishers	576
GARFO 2021 Vessel Permit List	4880
GARFO 2021 Permitted Dealers/Processors	546
NGO Individuals Involved in Fisheries Management/Ocean	30
Recreational Fishers	12
Scientists	25
Commercial Fishing Leaders/Influencers	40
TOTAL	**>6000**

A focus of the initial outreach was fishermen on Georges Bank. We prioritized groundfishermen which reduced the # of active George's Bank fishers from 576 to 137, and included the following types of vessels/fishing gear.

Trawlers (87)
Hand Gear (31)
Gillnet (14)
Mid Water Trawl (5)

Our objective for outreach was to have conversations with as many as 50 people, with at least half of those stakeholders being employed in the fishing industry or representing fishing associations or organizations.

According to our data, nearly 90% of the identified groundfishermen on GB were from home ports in Massachusetts with less than 10% of the groundfishermen from Rhode Island and Maine.

We also looked at the homeport data to identify and prioritize fishing ports where workshops might be held. Based on our analysis, key fishing ports supporting groundfishing activities on George's Bank (excluding lobster and scallop vessels) were:

- Chatham/Harwich, MA
- New Bedford, MA
- Gloucester, MA
- Boston, MA
- Point Judith, RI
- Portland, ME

If one looks at all vessels in the database, including the scallop and lobster fleets, the following fishing ports could be added to the above list:

- Montauk, NY
- Cape May/Point Pleasant, NJ
- Newington, NH

Armed with this data, we filled in database gaps with relevant contact information (email, phone), as available, and began making calls on or about the 3rd week in March.

PILOT OUTREACH

A "pilot" survey was conducted for the purpose of speaking to George's Bank fishermen about: (a) familiarity with EBFM concepts and terminology; (b) their experiences fishing on Georges Bank including questions of observed changes to the ocean and fishing; and (c) challenges and opportunities associated with an alternative management system on George's Bank based on an EBFM framework . During this pilot period, we spoke to 9 fishermen which included 5 trawlers, 1 charter captain, 1 gill net fisherman, and 2 hand gear fishermen, and included both owners and captains, and stakeholders from Maine, Massachusetts, Rhode Island, and New York.

Following advice from NOAA General Counsel, outreach was modified from a set of questions to an unstructured "conversation" format designed simply to promote the workshop and encourage participation. As questions arose during these calls, stakeholders raised relevant topics associated with EBFM and suggestions for developing and hosting a successful workshop. Stakeholders were encouraged to spread the word about the fall EBFM workshops.

Over the course of 8 weeks, we sent more than 60 emails and had conversations with another 30 plus stakeholders. Ultimately, we spoke to 40 stakeholders including:

- 8 commercial fishermen
- 3 charter fishermen
- 2 seafood processors
- 7 fishing association representatives
- 9 NGO representatives
- 11 scientists (many of whom work collaboratively with fishermen)

The list of individuals with whom we spoke can be found in Appendix 1.

STAKEHOLDER FINDINGS

Although somewhat skeptical about the outcome and potential benefits, we found that the majority of stakeholders are excited about the opportunity to rethink aspects of fishery management. Those stakeholders, especially NGOs and scientists, who have been tracking or involved in EBFM for a number of years, are encouraged to see signs of real action and investment by the Council, such as the workshops and the RFP for a contractor to conduct a prototype Management Strategy Evaluation (MSE) for EBFM. A number of stakeholders from these same communities suggested that this "moment" presents unique opportunities as initiatives associated with EBFM, climate change scenario planning, and off-shore wind development intersect and overlap. All these initiatives contemplate new scientific data collection and analyses, jurisdictional challenges during a period of ocean change, and the need for exploring new management frameworks.

We found that all stakeholders generally supported the following EBFM approaches and concepts:

- Incorporating predator-prey and trophic level relationships into the fishery management framework
- Estimating ecosystem production for GB
- Developing fish stock complexes and managing to these groups
- Integrating science and management to support more timely and dynamic decision-making

Stakeholders also generally agreed on the topics – beyond fundamental concepts and terminology -- they wish to discuss at a workshop. These include:

- Legal and jurisdictional issues
- Biomass floors
- Data Science
- Permit System for eFEP

- Potential scenarios and trade-offs
- Integration of the human dimensions ecosystem (e.g., fleet, port)

While there was plenty of agreement, and general support for the initiative and the workshops, skepticism will exist until EBFM moves from a concept to a draft management plan with specific alternatives and estimated effects. The lack of concrete estimates of future catch under EBFM to compare with status quo management is an example. Other core questions included:

- whether stock complex management would be approvable under Magnuson Stevens Act
- how biomass floors would be developed and enforced
- whether the permitting and jurisdictional issues can be resolved given the power, financial, and equity issue involved, and
- how sector-based catch share management would apply and integrated into an EBFM system.

Stakeholders were often focused on whether a different system will address their perceived problems with the current approach, and how long it might take to pilot or implement an eFEP on George's Bank. Perhaps the best way to present the range of stakeholder views is to present some of their questions and comments. These views are categorized into positive, negative, and skeptical (e.g., posed as a question).

POSITIVE VIEWS

The management of groups of similar fish species makes sense to me.

I think the current science data is better aligned with the EBFM approach than it is with the species by species approach.

There is great value in a place-based approach

EBFM promotes the harvesting of the more abundant species

Embrace the disruptive, but make sure that science and the law are on your side

NEGATIVE VIEWS

EBFM is too academic and too associated with simulation and modeling to relate to the world on the water

I don't want to be anyone's test case or pilot ever again after going through Amendment 8 for the Atlantic Herring Fishery Management Plan.

I'm frustrated that the Council has yet to figure out the legal and jurisdictional issues necessary to move this proposal forward.

This is a sound, place-based, scientific approach to fishery management that will feed into a purely political body that will ultimately make decisions about this approach. That scares me.

I'd rather focus on fixing the discrete issues inherent in the current system.

SKEPTICAL QUESTIONS

I need to understand the trade-offs to form an opinion about EBFM

It will create a new set of winners and losers, which makes change difficult.

Need to better understand how an EBFM approach will impact the "business" of fishing.

How will this change/improve the stock assessment approach?

EBFM will take a long time, and a great amount of energy and resources to move this through the Council process. Does it have the budget and the political will?

Of course, different stakeholder groups expressed distinct perspectives. Fishermen wished to know more concretely how the system would actually work with specific interests in how the permitting system might change and how "overfished" stocks would be managed differently than the current system. The NGO community was particularly interested in legal and jurisdictional issues, especially as it related to overfished individual species, and what guardrails would be in place to conserve habitats and protect overfished species in a prototype eFEP on Georges Bank. Scientists were excited and challenged by the opportunity to collect more and better data about the ecosystem to inform dynamic decision-making and to align the science with management objectives.

Ultimately, the stakeholder's response was similar to previously expressed perceptions about issues, barriers to success, and potential benefits. The stakeholder "brochures", found at https://www.nefmc.org/committees/ecosystem-based-fisheries-management , accurately summarize many of the challenges and opportunities that we also heard during our outreach conversations.

STAKEHOLDER INPUT: INFORMING THE WORKSHOP

Based on the findings, the guidance of the EBFM Committee, and the suggestions of stakeholders, a draft workshop outline was developed. It generally conforms to the outline found in Table 1 below. The full draft agenda can be found in Appendix 2.

TOPICS – Presentations	**INTERACTIVE EXERCISE - Examples**
Welcome	Introductions and setting of expectations for the workshop
Introduction of EBFM Concepts and Terminology	Discuss benefits and concerns; Complete sentence: "In ten years, I hope that EBFM on Georges Bank _____"
EBFM Ceilings/Harvest Control	Breakout groups discuss different types of ceilings and floors, and capture core issues. Identify and respond to options, and report back
Science in Support of EBFM	Breakout group discusses how to obtain better data, how to collect data more quickly, and the trade-offs, and report back
Next Steps	Facilitator summarizes the workshop and shares a roadmap for the path forward

The EBFM Committee had previously developed three PowerPoint presentations that introduced EBFM topics. They are available on the EBFM Outreach website. These slide decks were titled:

- An Introduction to Ecosystem-Based Fishery Management
- What are Catch Ceilings and How Are They Determined?
- Science in Support of Ecosystem Based Fishery Management

Promotional Outreach for the Workshops

Nearly all people (>95%) we spoke to are interested in participating in workshops and many offered to support workshop promotion in their fishing port/area and networks. In addition to using the NEFMC's press release/news outlet network, some of the suggestions for promotional outreach from stakeholders are identified below.

- Stakeholder Facebook pages, such as charter boat associations, individual fishermen/boats, or seafood companies
- Stakeholder LinkedIn pages, including fishery influencers and scientists identified in our database development work
- Newsletters or publications such as Island Institute's Working Waterfront, Commercial Fishery News, state Audubon and CLF newsletters, SeaGrant networks
- Higher Education sites such as SMAST, Yale School for the Environment, Northeastern Marine and Environmental Science Program, Boston University Marine Program
- Newspapers such as Portland Tribune, New Bedford Standard Times, Gloucester Daily Times, Providence Journal.
- Podcasts/Postings such as "Good Morning Gloucester," "New Bedford Light"
- Email lists such as the fisheries list used by Vineyard Wind, EBM Help listserve, MassFishing Partnership