

NOAA FISHERIES

For more detailed
information on EBFM
and NOAA Fisheries
implementation efforts:
[http://www.st.nmfs.
noaa.gov/ecosystems/
ebfm/index](http://www.st.nmfs.noaa.gov/ecosystems/ebfm/index)



*“One does not
need perfect
knowledge of
every process to
implement EBFM.”*

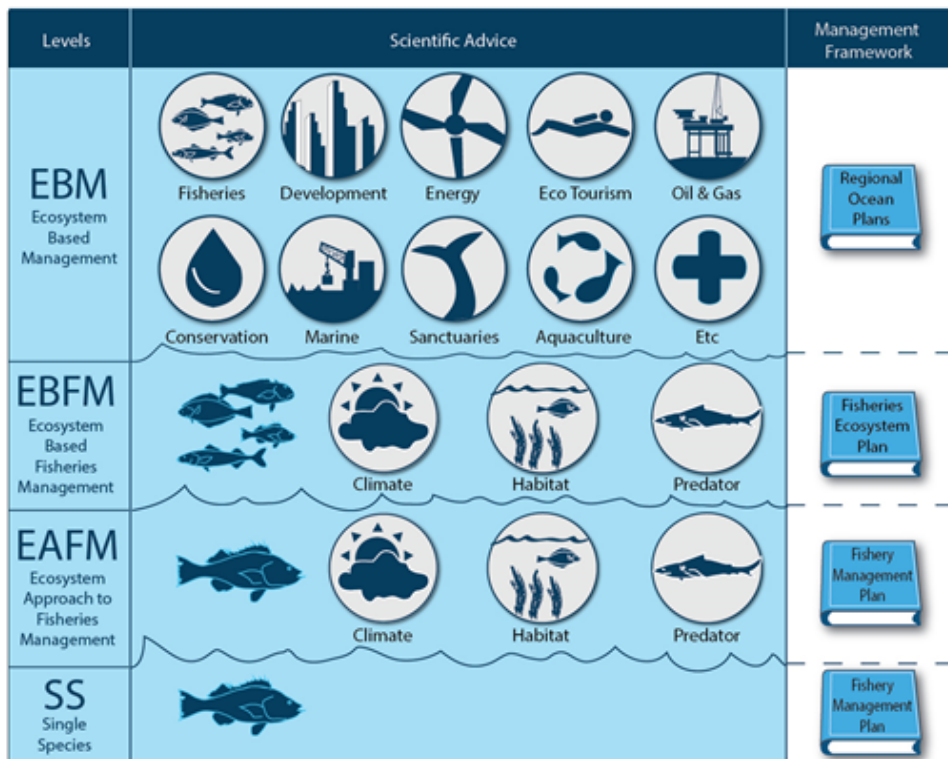
– W. Patrick and J. Link

Demystifying Ecosystem-Based Fisheries Management (EBFM)

EBFM: An Overview

Ecosystem-based fisheries management (EBFM) was introduced as a holistic approach to fisheries management in the 1990s. EBFM exists along a continuum, and takes into account the complex suite of biological, physical, economic, and social factors associated with managing living marine resources.

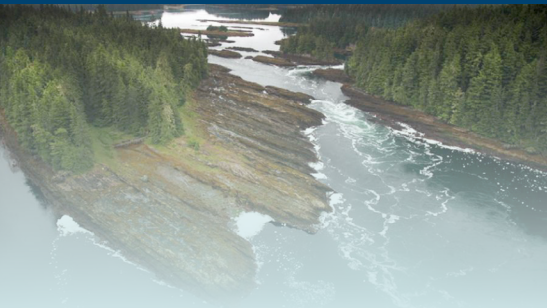
EBFM evolved over the last two decades to become a cornerstone of NOAA Fisheries efforts to sustainably manage the nation's marine resources. However, myths surrounding EBFM impede its progress. An April 2015 article in *Fisheries*¹ addresses these myths (located here: <http://www.st.nmfs.noaa.gov/ecosystems/ebfm/ebfm-myths>).



Dispelling the myths and taking action

Myths have discouraged some managers from trying EBFM, preventing them from getting the information they need to manage resources. Instead of viewing EBFM as a too complex and too information intensive, it should be viewed as a framework to help managers work with the information they have to address objectives. To learn more about EBFM, and NOAA's role, visit <http://www.st.nmfs.noaa.gov/ecosystems/ebfm/index>.

¹Wesley S. Patrick and Jason S. Link. (2015) Myths that Continue to Impede Progress in Ecosystem-Based Fisheries Management, *Fisheries*, 40:4, 155-160, DOI: 10.1080/03632415.2015.1024308.



Some examples of how NOAA Fisheries is enhancing its ability to apply EBFM:

- **Fisheries and the Environment (FATE) program:** <http://www.st.nmfs.noaa.gov/fate/>
- **Integrated Ecosystem Assessment (IEA) program:** <http://www.noaa.gov/iea/>

“EBFM is feasible with information, tools, and approaches that are currently available.”

– W. Patrick and J. Link



Myth 1 – FALSE | Marine ecosystem-based management lacks universal terminology making it difficult to implement.

The scientific literature provides clear and consistent definitions of marine ecosystem-based management and associated terminology.

3 Levels of Ecosystem-Based Fisheries Management

1. **Ecosystem approaches to fisheries management (EAFM)** focus on a single fisheries stock and include other factors that can influence a stock.
2. **Ecosystem-based fisheries management (EBFM)** focuses on the fisheries sector (multiple fisheries).
3. **Ecosystem-based management (EBM)** focuses on multiple sectors, such as fisheries, ecotourism, and oil and gas exploration.

Myth 2 – FALSE | There’s no clear mandate for EBFM.

The Magnuson-Stevens Fishery Conservation and Management Act, combined with over 90 separate federal legislative mandates, have given NOAA authority to implement an ecosystem-based approach to management for the last two decades.

Myth 3 – FALSE | EBFM requires extensive data and complicated models.

EBFM begins with what is known about the ecosystem. It provides a framework to use all available knowledge, whether more general or detailed. EBFM allows managers to work with the information available to best manage the ecosystem.

Myth 4 – FALSE | EBFM results will always be conservative and restrictive.

Studies show that when management applies EBFM, the landings are comparable to the amounts under single-species management. Plus, there may be long-term economic benefits for multiple fisheries when the system is managed as a whole.

Myth 5 – FALSE | EBFM is a naïve attempt to describe a complex system.

Unlike traditional fisheries management that are myopic in their approach, EBFM recognizes the complexities of fisheries management, which often have competing ecological, economic, and social goals. EBFM is about trade-off analysis, explicitly examining what options meet the most objectives and optimize yields over the long-term.

Myth 6 – FALSE | There aren’t enough resources to do EBFM.

EBFM implementation actually has the potential to increase efficiencies. A transition to EBFM allows multiple species to be addressed through a more integrated assessment process.