

Developing a Fishery Ecosystem Plan for the Gulf of Mexico

Desarrollando un Plan de Ecosistema Pesquera para el Golfo de México

Élaboration d'un Plan pour L'écosystème de la Pêche pour le Golfe du Mexique

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EXTENDED ABSTRACT

The National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) has enacted policies and procedures designed to end overfishing which has reversed the downward trend for many of the nation's most valuable, federally managed fishery stocks. This progress can largely be attributed to a traditional management approach that focusses on the management of single stocks. Nonetheless, NMFS is increasingly urging an Ecosystem Based Fisheries Management (EBFM) approach to address issues that transcend multiple stocks, jurisdictions, and that consider the fisheries within their holistic ecosystem context.

There is broad agreement on the value of an EBFM approach, but it has been challenging to implement (Pikitch et al. 2004). Fishery Ecosystem Plans (FEP)s are the primary tools with which Regional Fisheries Management Councils (RFMCs) are implementing EBFM. Given the wide geographic range of RFMC jurisdictions, environments, fisheries productivity and value, governance capacity and other factors, there exists a concomitant variation in the scale, scope and efficacy of FEPs among regions (Link and Marshak 2019). Though success is demonstrated in each region, FEP implementation has been limited by a general lack of actionable guidance (Levin et al. 2018).

The Gulf of Mexico Fishery Management Council (Gulf Council) appointed an Ecosystem Technical Committee (ETC) to guide development a FEP for the Gulf that benefited from extensive literature review and the experiences of other RFMCs with a primary focus on ensuring the plan be "actionable". The Gulf Council contracted LGL Ecological Research Associates, Inc. (LGL) in January 2021 to assist the ETC in the process. LGL produced four deliverables in coordination with and support from the Southeast Fisheries Science Center and GMFMC staff:

Gulf of Mexico Fishery Ecosystem Plan. Version 1.0 (LGL 2022)

Case Studies and Lessons Learned from Fishery Ecosystem Planning (Heyman et al. 2021)

Indicator Development for Fishery Ecosystem Planning: Summary Report (LGL 2021)

Stakeholder Assessment & Concept Mapping in support of Fishery Ecosystem Planning for the Gulf of Mexico

Summary Project Report (Scyphers et al. 2021)

The draft FEP (LGL 2022) benefitted from an extensive review of FEP experiences around the US (Heyman et al. 2021), an intensive focus on stakeholder assessment and concept mapping (Scyphers et al. 2021) and an evaluation of indicators (LGL 2021). To provide specific and actionable guidance, the FEP adopts the concept of Fishery Ecosystem Issues (FEIs), as the focal planning unit. The FEI concept is similar to both "Action Modules" and "Ecosystem Initiatives" adopted by the North Pacific Fishery Management Council and the Pacific Fishery Management Council, respectively (Heyman et al. 2021). A FEI is defined as a specific fishery management issue or problem that occurs within a subregion of the Gulf, that would not be considered within a single stock management paradigm and that may be addressed or solved through Gulf Council action. FEIs are addressed through the "FEI Loop", defined as a structured, action-oriented process that moves an FEI towards its goals, typically within 1 - 3-year windows and with oversight and review from the Gulf Council. The Gulf Council is presently working to update and finalize a FEP for the Gulf of Mexico, led by the ETC. Details of FEI selection, definition, prioritization, and details of decision-making within the FEI are all being refined.

KEYWORDS: Fishery Ecosystem Plan, Gulf of Mexico, Ecosystem Based Fisheries Management, Fishery Ecosystem Issue

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