Northwestern Hawaiian Islands (NWHI) Lobster Stock Assessment Model Development

Peer Review Requirements

The Pacific Islands Fisheries Science Center (PIFSC) is advancing current assessment methodologies for Northwestern Hawaiian Islands (NWHI) lobster populations by developing new spatially-structured stock assessment models. The development of spatially structured models for NWHI lobsters was recommended by an expert workshop in 2002 that reviewed current assessment techniques, available data, and management needs. Although the fishery harvesting the lobster stocks no longer operates and the stocks are not the focus of any management or regulatory decisions, (the stocks are protected within the Northwestern Hawaiian Islands Marine National Monument), lobster population studies continue in support of a broad-based ecosystem research strategy. Through established collaborations between scientists from the University of British Columbia and PIFSC, a hierarchical assessment framework for meta-populations has been developed and applied to lobster populations in the NWHI.

The Center is soliciting a desk-top peer review of the research by three independent experts. The reviewers should be familiar with various subject areas involved in the review: lobster biology; analytical stock assessment, including population dynamics theory; integrated stock assessment models; and estimation of biological reference points. PIFSC will provide reviewers with the necessary documentation.

The reviewers' duties should not require more than 5 days of work. A written report from each reviewer is required. The report generated by each reviewer should include:

1. Comments on the adequacy and appropriateness of data sources for stock assessment.
2. A review of the assessment methods: determine if they are reliable, properly applied, and adequate and appropriate for the species, fisheries, and available data.
3. An evaluation of the model configuration, assumptions, and input data and parameters (e.g., fishery, life history, and spawner–recruit relationships): determine if data are properly used, input parameters seem reasonable, models are appropriately configured, assumptions are reasonably satisfied, and primary sources of uncertainty accounted for.
4. Comments on the proposed population benchmarks and management parameters (*e.g., MSY, Fmsy, Bmsy,*); if necessary, recommended values for alternative management benchmarks (or appropriate proxies) and clear statements of stock status.
5. An evaluation of the adequacy, appropriateness, and application of the methods used to project future population status.