

**STAC Workshop Proposal**  
**Multi-species Management Strategies in the Chesapeake Bay**  
**Developing a Fishery Ecosystem Plan (FEP)**

Background

It has been recognized through previous STAC-sponsored workshops/projects that adopting a multi-species management strategy in the Chesapeake Bay would be advantageous. The Chesapeake Bay Program's proposed re-authorization states that a 5-year special study shall:

- (1) Determine the current status and trends of living resources, including grasses, benthos, phytoplankton, zooplankton, fish, and shellfish;
- (B) establish rates of recovery of the living resources in response to improved water quality condition;
- (C) evaluate and assess interactions of species, with particular attention to the impact of changes within and among trophic levels; and
- (D) recommend management actions to optimize the return of a healthy and balanced ecosystem in response to improvements in the quality and character of the waters of the Chesapeake Bay.

In response to identified needs, it is likely that Congress will appropriate additional funds (\$500,000) to the NOAA Chesapeake Bay Office (NCBO) to support research on multi-species interactions and ecosystem-based approaches to fisheries management within the Chesapeake Bay.

As a mandate in the 1996 Sustainable Fisheries Act, the National Marine Fisheries Service (NMFS) convened an Ecosystem Principles Advisory Panel to assess the extent that ecosystem principles are used in fisheries management and research, and to make recommendations to Congress on how such principles can be further implemented to improve our management of living marine resources.

A comprehensive ecosystem-based fisheries management approach would require managers to consider all variables: interactions between predators, prey, and competitors; the state of the habitat; the influence of temperature/weather; and the effects of fishing. The Chesapeake Bay Program currently considers and applies certain aspects of ecosystem management; however they are not applied evenly across jurisdictions, nor consistently within NMFS or the Regional Fishery Management Councils.

In the Ecosystem-based Fishery Management Report to Congress (released April 1999), development of an incremental strategy moving toward ecosystem-based fisheries research and management is recommended. Councils would gradually amend existing Fisheries Management Plans (FMPs) for single species or species complexes to incorporate approaches consistent with an overall Fishery Ecosystem Plan (FEP). An FEP would be developed as an umbrella document for each major

ecosystem under Council jurisdiction where fishing activities occur. As such, managers can be aware of the effects their decision may have on an ecosystem, as well as the effects other components of the ecosystem are likely to have on fisheries. Objectives of the FEP are to:

- (1) Provide managers with a clear description and understanding of the fundamental physical, biological, and human/institutional context of ecosystems within which fisheries are managed;
- (2) direct how that information should be used in the context of FMPs; and
- (3) set policies by which management options would be developed and implemented.

The concept of ecosystem-based fisheries management is relatively new, and there are considerable gaps in knowledge and practice. It was recommended that initial demonstration FEPs be developed to serve as models to facilitate adoption of the Principles, Goals and Policies of ecosystems management in a timely manner.

### Workshop Structure

A 2-day workshop would convene experts involved in multi-species fisheries research and ecosystem structure and processes together to focus on developing a Chesapeake Bay Fishery Ecosystem Plan that would serve as the model FEP. Early sessions would include presentations from members of the Ecosystem Principles Advisory Panel, as well as presentation of results from other recent workshops on this topic that we can build upon.

### Some Issues/Problems

Workshop participants will identify specific multi-species issues/problems in the Bay, e.g. predator-prey (striped bass eat menhaden/anchovies), competing predators (stripe bass/man eat blue crab) that could be better addressed using a multi-species or ecosystem-based approach than the current single-species approach.

Workshop participants will develop (or modify) the principles stressed in the NMFS Advisory Panel document, i.e. science, management, and policy, to be specific for Chesapeake Bay; will identify research needs, management needs or policy needs to develop a Chesapeake Bay FEP.

### Workshop Deliverables

A report will be prepared and disseminated shortly after the workshop; it will include summaries of the presentations, discussion, conclusions, and recommendations. Specific recommendations will include: a detailed framework for developing the model Chesapeake Bay FEP, as well as nominations for a panel to draft the Plan.

### Workshop Size

The workshop will have 30-35 participants, to include fisheries' researchers and managers from the Bay region, as well as national experts.

### Budget

\$5,000 - Provide meeting venue and travel expenses for presenters as appropriate. There is also a very high potential for collaborative funding through the NOAA Chesapeake Bay Office.

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