



**Scientific and Technical Advisory Committee**  
Request for Responsive Workshop Proposals

- ◆ Workshop topic/title

**Development of Habitat Suitability Models for Ecosystem Based Fisheries Management in the Chesapeake Bay**

- ◆ Subcommittee members requesting workshop, and participants in the workshop steering committee

STAC Members David Secor (UMCES) and Denise Breitburg (SERC)

- ◆ Description of workshop and justification

Protection and restoration of essential habitats for Chesapeake Bay living resources is the lynchpin between strategic pillars that seek to improve water quality, sea grass and oyster reefs and the imperative to develop ecosystem approaches to fisheries management. Habitat suitability models represent a range of approaches that translate habitat variables into currencies of fish/invertebrate productions that can be incorporated directly into fisheries and habitat management strategies. Still, the diversity of approaches has not been vetted in terms of their feasibility, appropriateness and rigor. Here, we propose a workshop to evaluate existing or nascent habitat suitability models that have applicability to living resource species in the Chesapeake Bay. There is urgency to develop fisheries ecosystem approaches under the Chesapeake 2000 Plan and habitat modeling and management represents one of the most promising elements in developing and implementing ecosystem based approaches for fisheries management.

Objectives of the Workshop are,

1. Review and rank a diverse range of analytical approaches used for habitat suitability modeling for Chesapeake Bay living resource species.
2. Develop feasible habitat reference points.
3. Develop priorities for research and implementation of habitat suitability approaches, reference points and management across pillar species.

- ◆ Workshop products and relevance to Living Resource Subcommittee

A report related to terms of reference and assessments of various habitat suitability modeling approaches will be submitted to the Living Resources Subcommittee, NOAA Chesapeake Office, and MD Sea Grant. The Living Resource Subcommittee will review findings for feasibility and continue to guide process of FEP development for pillar species. Dr. Stephen Giordano is the Pillar steward for Fisheries based Ecosystem Management. He will be involved in all aspects of the workshop (see attached letter). MD Sea Grant is currently funded to develop a framework

for implementable fisheries ecosystem based plans, of which development of habitat reference points is a central module in their planning.

- ◆ Key people/speakers, general audience, and subcommittee members attending, and meeting logistics.

Up to 30 invited speakers and discussants will be asked to present and discuss five different classes of habitat suitability models. Classes of habitat models and possible speakers/participants (not yet contacted) include,

**Mapping of habitat variables** – Steve Giordano (NOAA), Kenneth Moore (VIMS), Lowell Bahner (NOAA), Cecily Steppe (Naval Academy)

**Statistical models of living resources and habitat variables** - Mark Monaco (NOAA), Mary Fabrizio (VIMS), Tom Miller (UMCES), Rom Lipcius (VIMS), Aswani Volety (Florida Gulf Coast University)

**Dynamic habitat suitability models** -Jerry Ault (Univ. Miami), Elizabeth North (UMCES)

**Ecophysiological/Forage models**- William Neil (TX A&M), Dave Secor (UMCES), Mark Weunschel (Rutgers), C. Luo (Miami University), Lowell Bahner (NOAA)

**Multi-Stress Models**-Denise Breitburg (SERC), Dennis Wigham (SERC)

We expect that the meeting will be of broad interest to Living Resources Subcommittee, state, federal and academic scientists. CBL has meeting space for up to 80 folks in the renovated Bernie Fowler Auditorium.

The two-day meeting will be held at CBL Bernie Fowler Auditorium, early 2009. On day-1 for plenary presentations and open discussions will occur. On day-2 core-participants (c. 30) will address series of questions related to feasibility and implementation in break-out groups structured along the five classes of approaches.

- ◆ Budget request

We are requesting \$7000 to support travel for outside folks and motel accommodations for local folks who need it.