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New England Fishery Management Council

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**MEMORANDUM**

**DATE:** January 18, 2013  
**TO:** Groundfish Oversight Committee  
**FROM:** Closed Area Technical Team (CATT)  
**SUBJECT:** Omnibus Habitat Amendment progress report

The Council approved the following goals and objectives for OHA2 in November 2012:

Goals

1. **Enhance groundfish fishery productivity**
2. **Maximize societal net benefits from the groundfish stocks while addressing current management needs**

Objectives

1. **Improved spawning protection; including protection of localized spawning contingents or sub-populations of stocks**
2. **Improved protection of critical groundfish habitats**
3. **Improved refuge for critical life history stages**
4. **Improved access to both the use and non-use benefits arising from closed area management across gear types, fisheries, and groups. These benefits may arise from areas designed to address other three groundfish closed area objectives.**

To address these objectives, the Council is considering spatial management options that could restrict fishing activity by all or certain fleets and gear types. Renewing our work on the Omnibus Habitat Amendment in early December after completing our contribution to Framework 48, the Closed Area Technical Team (CATT) has made substantial progress:

- Identifying appropriate survey, observer, and fish tagging data sets
- Identifying appropriate statistical analyses
- Evaluating relevant case studies

The CATT's work has taken five tracks which will help us develop recommendations and help the Council make decisions:

- Relevant case studies to identify successful implementations and strategies as well as instances where the spatial management program fell short of the intended effect or had unintended consequences. This review also includes local research that has identified spawning concentrations and resident populations.
- Identification of potential spawning and juvenile aggregations through geographical cluster analysis of survey and fishery data. Other species including monkfish and skates would be included to evaluate effects of potential management options.
- To identify habitat for critical groundfish life stages through geographical modeling of juvenile groundfish distribution as a function of depth, temperature, and substrate.
- Map spatial distribution of fishery revenue which, when linked with biological benefits, can be used to develop cost benefit analysis and analyze the impact of management alternatives.
- Evaluation and analysis of tagging data to identify populations that might benefit from spatial management, i.e. more resident populations and species. Some tagging data include observations of spawning condition throughout the year to augment the information coming from biological sampling on surveys.

Several technical challenges have been identified about how we analyze the data and interpret the results. These challenges include access to and appropriate analysis of various data sets including: federal and state surveys, observer data (affected by management, no biological samples), tagging data, literature, vessel trip reports (VTR), and vessel monitoring system (VMS) positions. Survey data that is not normally distributed and is collected with a stratified random design may violate certain assumptions with standard geographical analysis procedures.

These challenges can be overcome, but require a little more time to address and resolve the issues via consultation with certain experts on geostatistical analysis and modeling. We understand that these management options will be controversial, but will be defensible based on sound scientific analysis. We anticipate that spatial management options will be forthcoming with areas to conserve aggregations of large spawning size fish and areas that provide important groundfish habitat for critical life stages, often juvenile fish.

This future work will probably take at least through the end of March to complete. At that time, the CATT would be in a better position to recommend credible spatial management options.

In the meantime, the CATT has several questions that would help guide us to shape alternatives:

- Should such areas have an automatic sunset provision for area management options, either defined by a period of years or when populations exceed targets?
- Should spawning closures include recreational fishermen, depending on the intended effect of a closure area?
- Should the CATT also consider groundfish habitat closures to other gears like gillnets and longline gears that may have a smaller, but possibly important impact on groundfish habitat and epifauna?