

**New England Fishery Management Council
Scallop Survey Advisory Panel**

Meeting Summary

Falmouth, MA

March 2, 2007

Participants:

Panel members: Mr. Ron Smolowitz (chair), Mr. Richard Taylor, Mr. Glen Nutting, Mr. Victor Nordahl, Dr. Dvora Hart, Mr. Andrew Applegate, Mr. Charles Quinn, Dr. Russell Brown, Mr. Brad Harris (substitute for Dr. Stokesbury), Mr. Dan Cohen

Council and NOAA Fisheries staff: Ms. Stacy Rowe, Ms. Erin Kupcha, Ms. Diana Cowan, Mr. Chris Pickett

Others: Mr. Dave Rudders, Mr. Ed Welch, Msr. Cate O'Keefe

Agenda items: The panel met to review and further develop a draft discussion document, describing the current status of survey technology, issues related to future surveys, and recommendations. The panel was to be updated on recent progress on the prototype survey dredge and planned field testing later this summer. At the end of the meeting, the panel was to reconvene at the Pocasset warehouse to examine the most recent version of the prototype survey dredge.

Meeting summary

The meeting opened with a discussion on the panel's consensus that a scallop dredge would be a necessary component of future scallop surveys. NMFS scientists made a pitch for continuation of the dredge survey because of the 25 year time series used in the assessments and because the dredge allowed examination of samples at the surface, for example measurement of meat weight and gonad condition. SMAST scientists pointed out that the grid sampling design shelf-wide video survey has been conducted annually since 2003 and the results have been peer-reviewed and published. There are also plans to test new technologies for scallop surveys via experiments that shadow the dredge survey.

The panel then began discussing the types of information about marine resources that might be gathered during a scallop survey, using various existing and potential technologies. These technologies include a survey dredge, various types of video/camera devices, and sonar. The types of data that could be used to assess the scallop resource and the health of the ecosystem included scallop abundance, scallop meat weight and size frequency, scallop health and gonad condition, predation and species association, finfish abundance and size (particularly for species like monkfish, yellowtail flounder and skates that are often captured by the dredge), benthic characteristics (substrate and biota), and fishing effects.

The various sampling technologies lent themselves better to collecting certain types of data than others. The strengths of each type of sampling technology were outlined and will be included in a future revision of the draft discussion document.

One of the important considerations is sampling efficiency and cost. The panel reviewed the requirements and costs associated with dredge, drop camera, and towed camera survey technologies conducted on NMFS, UNOLS, and/or commercial scallop vessels for conducting broad-scale, shelf-wide surveys and for conducting surveys targeting specific areas, like the Elephant Trunk Area. Panelists agreed that there was a tradeoff between the amount and types of data that may be collected on various

platforms and costs. The factors identified by the panel will be incorporated into the draft discussion document.

Mr. Nordahl reported on recent progress to develop a re-designed prototype survey dredge. The purpose of this effort was to develop a dredge configuration that would be more reliable and consistent than the existing survey dredge configuration. RSA projects led by Mr. Smolowitz and Dr. DuPaul would be utilized to field test and fine tune the new prototype dredge, comparing the performance against the existing survey dredge and a commercial dredge.

Mr. Nordahl said that considerable progress had been made while working with Mr. Quinn, Mr. Donnelly, and Mr. Taylor at Mr. Quinn's workshop in Fairhaven. During this time, the ring bag had been reconfigured so that it hung better, the twine top had been changed and re-hung, 16" rollers had been added to the bail, a new inclinometer bracket had been designed, the sweep chain had been shortened, and rock chains had been incorporated.

Mr. Nordahl felt that the dredge was very close to being ready for field testing. The panel later examined the new dredge and all felt that it was a big improvement and there were no major issues that would prevent the dredge from working optimally.

The panel agreed that field testing should be done with and without a mesh liner, with sufficient replicates to estimate and compare catch variability with the prototype and control dredges. It was also agreed that the prototype dredge should use a 7 foot club stick, that the prototype dredge will have turtle chains on all tows, that tow time will be altered during testing to examine how tow time affects catch, and that various scopes will be tested.

The plan is to conduct field testing on commercial vessels during RSA funded projects during 2007, followed by calibration studies using the R/V Albatross and UNOLS or commercial vessels in 2008. This schedule would make the prototype dredge fully operational for conducting the scallop survey in 2009.

The panel briefly discussed recommendations for sampling designs and protocols, term of reference 3. It was agreed that there would be a time series problem if the dredge survey sampling design were radically altered. Basically, the same statistical design should be continued for consistency. The optimal design for other surveys, to survey a small area with photographs or video for example, might be conducted with other designs that are suitable for the sampling method. Panelists felt it is important to collect data for other species and detect seasonal differences in abundance and/or meat weight as well.

Brief discussion of term of reference 5 (other data sources for the management specification process) occurred. The panel thought that it would be useful for the observer program to collect information on scallop meat weight and gonad condition. It was noted that the observer program had begun collecting more data on scallop length frequency and meat weight. Seasonal changes could be factored into TAC setting to better reflect the actual meat weight of caught scallops in areas that have specific seasons. The panel also agreed to recommend that NMFS further develop a comprehensive electronic VTR system that uses the VMS equipment to allocate reported catch by area.