

Northeast Fisheries Science Center / Virginia Institute of Marine Science
Discussion Regarding the Coordination of the NEFSC/NEAMAP Trawl Surveys

Meeting Summary

Narragansett, RI

January 24, 2012

9:30am – 12:45pm

Participants

John J. Hoey (NEFSC Cooperative Research Program)

Russell W. Brown (NEFSC Ecosystems Surveys Branch)

Christopher F. Bonzek (VIMS Fisheries Science)

James Gartland (VIMS Fisheries Science)

The purpose of the meeting was to discuss what will likely be a series of efforts (e.g., future meetings, telephone & email exchanges, collaborative analyses & perhaps sampling, etc.) designed to increase coordination between the NEFSC Bottom Trawl Surveys and the NEAMAP Near Shore Trawl Survey. It is likely these efforts will expand to include other regional and state surveys, depending both on the availability of resources and the willingness of these programs to participate. With respect to NEFSC/NEAMAP coordination, three main topics were discussed: (1) relative efficiency of the survey gears as measured by paired tows and comparisons of trends in indices of abundance, (2) ageing protocols, and (3) data housing.

Survey Gear Relative Efficiency – Paired Tows & Comparisons of Abundance Trends

The issue of comparing the capture efficiency of the NEFSC bottom trawl with that used by NEAMAP (towed by the *FSV Henry B. Bigelow* and *F/V Darana R*, respectively) has been raised on a number of occasions by stakeholders. Probably the most appreciable difference between the NEFSC and NEAMAP sampling gears is the sweep used by each survey; the NEFSC uses a 16” rockhopper, while the NEAMAP sweep is constructed of 3” cookies. Other potential differences between the surveys in decreasing order of perceived importance include differences in winch speed, trawl door performance, and subtle differences in protocols.

The NEFSC initiated both paired and twin-trawl comparisons, where a survey trawl outfitted with a rockhopper was paired with one constructed with the cookie sweep, on three New Bedford (*F/V Endurance*, *F/V Mary K*, *F/V Moreigh K*) and one Point Judith (*F/V Karen & Elizabeth*) based commercial vessels. Hoey & Brown shared some of the results, and told Bonzek & Gartland that they would send them a copy of the report once it was available.

The NEFSC and VIMS representatives discussed ‘side-by-side’ calibrations of the NEFSC and NEAMAP surveys, along with the challenges of such an effort. These include the effects of resource patchiness on catch comparisons, the need to find towable locations (i.e., adequate

depths) for the *Bigelow* in the NEAMAP survey area, and the likelihood of acquiring sufficient funds in the current budget environment to support a meaningful calibration effort.

Following this discussion, survey representatives talked about comparing indices of abundance for select species as a means to collaboratively address concerns about the relative efficiencies of the survey gears. The NEAMAP survey is starting to yield a useable time-series, and comparing trends in abundance from NEAMAP with those generated by the NEFSC could provide insight as to whether the two surveys are documenting similar population trends. Contrasting trends would not necessarily confirm sampling inconsistencies, since spatial variability, the relatively small differences in survey timing, and other factors can also influence these trends.

Nevertheless, any differences identified would deserve further investigation. The financial resources needed to support a comparison of survey indices are much less than those required to conduct a full survey gear calibration study, and could likely begin in the near-to-mid-term.

The discussion of this topic concluded with both parties agreeing that they will continue to evaluate the advantages and disadvantages of a NEFSC/NEAMAP gear calibration study to determine whether such an effort would be necessary. The design and implementation of the comparison of abundance indices will likely be discussed in more detail at the next meeting.

Ageing Consistency between Survey Programs

Because of the value of age-specific indices of abundance in the stock assessment process, ensuring that the age sample processing techniques and age assignment methodologies used by the two programs are comparable is critical. This type of quality control is routinely done among other surveys programs (NEFSC, DFO Canada, Maine DMR, Massachusetts DMR, etc.). VIMS provided the NEFSC with length-at-age data generated by NEAMAP for summer flounder and winter flounder prior to this meeting. Brown constructed an age-key from these data and reported that the NEAMAP information for summer flounder closely matches that of the NEFSC. Meeting participants agreed that initiating formal ageing exchanges between VIMS (NEAMAP) and the NEFSC would be valuable. Briefly, in these exchanges, ageing labs from each organization would send the other processed ageing samples from a given species. Each group would assign ages to the exchanged material, and then formal comparisons of the resulting data could be made to ensure that both labs were assigning ages for that species in a similar manner and, in turn, generating comparable age data for that species. VIMS and the NEFSC did initiate an exchange of summer flounder age samples in 2009, but this effort was stalled by a retirement in the NEFSC ageing lab and efforts associated with an upgrade in at-sea data collection equipment at VIMS. It is expected that this exchange will be re-initiated, and that others could begin, in 2012.

Data Housing

The final topic of discussion at this meeting was that of housing data generated by the NEAMAP survey in the NEFSC databases. The NEFSC representatives noted that having the NEAMAP

data on-hand and in an 'NEFSC data format' could facilitate the use of the survey data in the assessment process. VIMS was not opposed to the idea, given certain conditions. Specifically, VIMS would continue to conduct the post-cruise auditing of the NEAMAP data and house the survey database at VIMS. Following each survey, Bonzek would convert the newly acquired data to the NEFSC format and send the information to the NEFSC for inclusion. All requests to the NEFSC for NEAMAP data from within the NEFSC, from state/regional management agencies, and from other user groups (e.g., academic institutions, non-profit groups, etc.), would be directed to VIMS for consideration. Again, housing a copy of data in a centralized location with NEFSC, Cooperative Research, and other survey data (e.g. Massachusetts DMF) would facilitate its use in stock assessment activities.

Meeting attendees agreed to continue this discussion in the near future.