

NEFMC Essential Fish Habitat Omnibus Amendment 2

Discussion document

Data collection and research to support gear modifications

At their December 2012 meeting, the Habitat Committee made two motions regarding data and research to support development of gear modification regulations. These more general motions stemmed from a relatively narrow discussion of specific trawl ground cable modifications under consideration as adverse effects minimization measures.

One motion recommended that for all proposed habitat management areas open to bottom-tending mobile gear fishing at the conclusion of the OA2 process, a data collection program specific to evaluating bottom-tending mobile gear modifications be implemented. The data collection program should include documented characteristics of existing gear – i.e. cable length, door design, sweep design, etc. The maker of the motion specified that it would be useful to differentiate in the data gears configured for specific applications – e.g. separator trawls, raised footrope trawls. It was noted that it would also be important to identify the use of low impact gear types such as semi-pelagic trawl doors.

The first motion included language emphasizing that experiments investigating change in seabed impact and catch using various ground cable lengths would be given high research priority. The second motion expanded upon this research theme, recommending that the advisors and PDT be tasked with developing a research agenda related to reduced-habitat-impact gear. Specifically, this research agenda should include a set of specific questions related to the use of gear modifications for conservation of habitat, including a comprehensive list of gear characteristics, methods for collecting such information, and catch data necessary to make useful comparisons across gear types.

Initial PDT feedback

The PDT discussed these issues as a group during their March 6 meeting, and makes the following initial comments.

- A data collection program as envisioned in the first motion could be applied in two types of areas: existing habitat closures that are opened to fishing via OA2, and habitat management areas that are developed via OA2 but not selected for implementation as mobile gear closure areas. Areas falling into either category would probably need to be designated in fishery regulations as data collection areas so that it would be clear to vessels when they were operating in an area where enhanced gear-related data collection was required. This type of data collection system seemed fairly cumbersome to the PDT, and the possible benefits of such data collection were not immediately clear.
- The PDT discussed that a better approach might be to conduct a census of gear used across regional fisheries as a part of the permitting process. This would generate an annual (or perhaps less frequent) database of gears used across various fisheries. This

could be used to evaluate the changing frequency of use of reduced impact gear elements, such as semi-pelagic trawl doors. It would also provide a greater understanding of the range of gear configurations associated with various types of permits. Because these data would be collected from all vessels, it could save time for at-sea observers because they would be confirming that the gear configuration was consistent with annual reporting, rather than needing to document gear characteristics from scratch during each trip. A broadly applied data collection requirement would ensure that baseline data would be available for any set of vessels operating in a particular location. This would be important if a future Council were to identify a different candidate gear modification area than those envisioned via OA2. A data collection worksheet would need to be developed for each major gear type (bottom otter trawl, scallop dredge, sink gillnet, etc.). Data elements collected via the Northeast Fisheries Observer Program would be used as a starting point, but additional specificity would likely be required. Another related idea would be to have researchers conduct a periodic at-the-dock census of gear configurations used in various fisheries, rather than having vessel owners self-report these data (S. Eayrs, personal communication). This would be more costly, but would likely produce a more robust data set.

- Another option that could be implemented in addition to a periodic census of gears used would be to conduct a review of the gear data collected via the NEFOP program to ensure that there is sufficient specificity in the way gears are characterized in these data. Because the observer data set includes catch information on a tow by tow basis, correspondence between the data collected via the census approach and observer gear data would be important for making inferences at the level of the fishery. As specific gear modifications were being discussed last fall, an important data element discussed was the catch by species and size class associated with various gear configurations.
- Targeted gear research projects will provide the most accurate understanding of the relationship between gear modifications and catch. This understanding would be important to any assessment of whether a particular gear modification would have a net benefit to habitat. These research projects also provide an opportunity to fine tune gear modifications before they are tested more broadly. Using modified ground cables as an example, research projects could be used to compare catches across habitat types, cable lengths, and elevation disk diameters and spacing. Early trials would also be important in determining which materials are suitable for use as elevation disks (S. Eayrs, personal communication). Research fishing with modified gears also provides an opportunity to investigate the actual contact of various gear elements with the seabed.

Further work

Pending the short term outcome of Committee and Council discussions related to the further development of gear modification measures in OA2, the PDT can work on the following items:

- Design a comprehensive (recommended) or area-specific (less recommended) gear characteristics data collection program. This will involve collaboration with the Northeast Regional Office and possibly with the NEFOP.

- Review gear elements collected by NEFOP observers and determine what additional data should ideally be collected to support development of gear modification management measures. For example, general types of ground cables are distinguished in the observer data, but the size, spacing, and material of any cookies or disks on these ground cables are not specified.
- Draft a gear modification research agenda that further fleshes out the more general research agenda developed for DHRAs. This research agenda can be used by gear technologists and other as a guide to what the Council perceives as key questions in this arena. It would be helpful to get guidance from the Committee as to whether this agenda should focus on trawl gears, or be more general to all gear types that may have an impact on seabed habitats.