



## New England Fishery Management Council

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## DRAFT MEETING SUMMARY

### Habitat Plan Development Team

August 2, 2019

1:00 - 2:00 p.m.

The Council plans to post spatial data related to the Fishing Effects model on the NROC data portal ([www.northeastoceandata.org](http://www.northeastoceandata.org)). We can provide links to the model report, but also need to prepare metadata specifically for these products. The purpose of the call was to develop a work plan for generating these metadata.

#### *Meeting attendance*

PDT members included Michelle Bachman (Chair), Jessica Coakley, Geret DePiper, Marianne Ferguson, Kathryn Ford, Julia Livermore, David Stevenson, and Alison Verkade. Emily Shumchenia from the portal team was invited to participate in the discussion.

#### *Fishing Effects model metadata*

The team looked at examples of metadata that are currently provided on the northeast ocean data portal. The metadata are very easy to find on the portal once you have selected a layer. The Data Quality Index for usSEABED was examined as an example, and that format would be useful here as well (there are also tabular examples, such as for the species richness products). We can pair a shorter metadata report with our longer model report/appendices. The team agreed this pairing was a good approach. Dave Stevenson agreed to help pull some text from the model report as a starting point for the metadata document.

Across all the input data and model outputs, the data portal team will suggest ways to symbolize/visualize the data, and we can then use these representations in future Council documents and presentations. They have identified some best practices for display, i.e. high contrast colors, so it will make sense to use their expertise on this issue.

Sediment maps are generally a data gap for the region. The sediment maps for Fishing Effects include each of the five grain sizes, steep and deep habitats, data quality/density, and number of sediment types in each grid cell. The team agreed that each of these products is useful and suggested showing density of point data in one map layer and the distribution of polygon data sources in another layer. Currently these are overlaid in the figure in the model document. For both the point and polygon sources, the metadata document could show the footprints of each data set as a series of static maps.

The team discussed that the existing model document could better describe the input sediment datasets. These datasets can be further described in the metadata document, which should include some version of Table 21 (list of data sources) from the model report. The metadata document should include caveats for understanding these data (however, caveats on how to interpret percent disturbance outputs would be more appropriate for the percent disturbance metadata). In terms of how the percent sediment maps were created, the metadata document should also include a brief methods summary. For the percent grain size maps, it seems appropriate to show 0% values as a separate color.

The realized habitat disturbance/base model runs from section 7.1 of model document will also be posted. Currently the data portal uses time sliders to present various type of timeseries data. The PDT discussed which years/months to present, since all years and all months will be an extensive time series to click through. The group agreed that presenting just one month from each year could be confusing and users might think that the outputs were annual (as was the case with the SASI model). Also, this wouldn't show within-year patterns. Animations were found to be useful when presented to the Committee and the Council. The PDT recommended posting 1996-2017 animations for each gear type and the all gears combined run, and then developing more detailed layers with time sliders for just a few years. These layers would allow users to use a slider to see the change in percent disturbance by gear type and month for a shorter time period, say the last three years of the model. One idea to explore further is to include a few different time periods for comparison. The metadata should include caveats about how to interpret the results, and some general background on patterns of fishing effort and what fishery management plans/species are represented with each gear type. The team agreed that the way these outputs are displayed in the model document, i.e. same color ramp and bins across gear types, is the best approach to use. Also, we will want to think about how to deal with new outputs, for example if we post 2015-2017 now, and then have 2018 outputs, do we drop 2015? Since the intent is to update the outputs annually, we should note that in the metadata document.

Last, the team discussed the vulnerability/constant effort/ $Z_{\infty}$  habitat disturbance products (Section 7.3 of model document). The group recommended calling these products 'intrinsic habitat vulnerability to fishing' and thought it would be useful to make them available on the portal. The metadata document will need some brief methods for these products, as well as caveats.

Next steps: Council staff will work on metadata documents and solicit feedback from the PDT when they are ready. Timeframe TBD depending on other work priorities. The team discussed that the intent would be to make the model outputs available for download. Kevin Stokesbury at SMAST is enthusiastic about posting the data on the portal so that they can be used more widely. Council staff will follow up with SMAST to see if their intent was to make the sediment maps available for download, not just for viewing on the portal. Data portal staff will work on displaying the data on the portal, including the symbology, for the PDT to consider. We can view draft products on a password protected version of the portal when ready. We may wish to update the model report with versions of the maps that are consistent with how they are eventually presented on the portal, or with additional caveats/discussions developed during this exercise.

The call concluded at 2:07 pm.