4/29/2024 – Email to Brian Smith and Jason Boucher (NOAA, NEFSC)

Hi Brian and Jason,

In preparation for the ASMFC’s 2025 Atlantic Menhaden stock assessment, we will be working on updating two ecosystem models (Ecopath with Ecosim) that were used to develop Ecological Reference Points (ERPs) for the species. We are requesting your help in getting data from the NEFSC bottom trawl survey to support those efforts. About 10 years ago, Sean Lucey had helped us with a similar data request when we were first building the models, so hopefully there is some code for that request that you could leverage. Also, please let me know if there is someone else that we should contact about this data request; I'm not 100% sure who the best, current contact is.

For our project, we would like to request biomass data and diet data for the species captured by the NEFSC. Below is a summary of the details, referencing the attached excel file. Ultimately, we are looking for 1) diets by weight and 2) time-series of biomass density estimates (e.g., kg/km2). Please let me know if you have any questions or concerns. Again, thank you so much for your help with this data request.

I realize this is a large data request. We envision updating these models regularly in the future, so if there are ways to streamline the process, we are open to your thoughts suggestions. Please let me know if you have any concerns or questions or if any modifications are necessary.

Thank you very much for your help!

Andre Buchheister

Dave Chagaris

**Summary**

1. **BIOMASS DATA REQUEST (for NEFSC bottom trawl survey)**
   1. Data Type: Biomass, accounting for catchability as done in EMAX (e.g., t/km2)
   2. Time Period: time-series of annual values (averaging across survey seasons). For migrating species, it would be best to use any “index” months/seasons when the species is more reliably found in the survey area.
   3. Species: See excel sheet for Species groups; another sheet classifies individual species into each group.
   4. Size classes: If possible, it would be good to get the data by species size class (See the length bins in the excel file.)
   5. Spatial breakup by region and depth:
      1. 4 broad regions (MAB, SNE, GB, GOM) – same as EMAX
      2. 3 depth zones: (<90’, 90’-180’, >180’)
      3. Can you also provide the area extent (km2) for these region-depth strata, to allow for aggregation (as needed) through area-weighted averages?
2. **DIET DATA REQUEST**
   1. Data type: percent composition by weight
   2. Time-period: by decade if possible (1970s, 80s, 90s, 2000s)
   3. Predator species: Any trophic groups (see excel sheet) that NEFSC has data for.
      1. For aggregate groups (e.g., “hakes”, “skates”), is it possible to get a diet estimate for that group (for example, by coding the predators identically)? If not, we can do a biomass-weighted average of the individual species.
   4. Size classes: see length bins in the excel file
   5. Spatial breakup – 1 estimate coast-wide, and then also broken up by the 4 broad regions (MAB, SNE, GB, GOM).