



## New England Fishery Management Council

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### MEMORANDUM

**DATE:** April 21, 2022  
**TO:** Monkfish Advisory Panel  
**FROM:** Dr. Rachel Feeney, Monkfish Plan Coordinator  
**SUBJECT:** **2022-2026 Council Research Priorities Related to Monkfish**

The Monkfish Committee has reviewed and accepted the Plan Development Team's recommended updates to the monkfish-related Council research priorities ahead of the Council decision on the *2022-2026 Council Research Priorities and Data Needs*, scheduled for the June 2022 Council meeting. On May 4, the Advisory Panel will have an opportunity to review these draft updates and make any recommendations to the Committee. If the AP recommends revisions, Committee review of this input will occur either via email correspondence, or during the May 26 Committee meeting.

The *2021-2025 Council Research Priorities and Data Needs* included seven priorities directly related to monkfish. Thus far, there is no change recommended for one priority (# 64), five priorities have clarifications or notes added (#3, 14, 15, 47, 94), and one priority is merged into another that is related (#46 with 14). Monkfish is also added as an example for a more general priority (#30). Details and rationale are in Table 1. **Green bold** text are proposed additions, ~~red strikethrough~~ are proposed deletions, and comments are in **blue** text.

**Table 1 – DRAFT monkfish-related updates for the 2022-2026 Council research priorities and data needs**

| No. | Title   | Description, rationale, potential use   | Rating   | Status   | FMP   | Broad categories                          | Notes   |
|-----|---|---|--|----------|---|---|---|
| 3   | Efficiency estimation of NMFS trawl survey gear <del>for monkfish</del> , silver hake, and red hake; estimate efficiency based on gear configuration.     | Identify any issues regarding the use of a constant catchability coefficient.   | Strategic (future needs)   | Underway | Multiple, <del>Monkfish</del> , Small-mesh multispecies | Fish surveys                              | Absolute abundance and biomass indices are not used for small-mesh multispecies. <del>Estimates have been made for monkfish and used in the 2019 assessments.</del> Estimates for red hake are in a working paper for the red hake research track meeting in January 2020. <b>The Monkfish PDT recommends removing monkfish from this priority as this work was completed in the 2019 assessment.</b> |
| 14  | Monkfish life history work focusing on age and growth, longevity, reproduction, and natural mortality.  | <b>This work would help make an age-based assessment possible for monkfish.</b>   | Important (near term)  | Underway | Monkfish  | Population dynamics                       | <b>The SSC highlighted this need in 2019; was a 2020-2021 Monkfish RSA priority.</b> 2018 Monkfish RSA project used histological protocol for age determination. Age validation is a NEFSC priority. NEFSC involved in Bank et al (2020). <b>Otoliths and spines have been found useless for aging. The Monkfish PDT recommends these clarifications.</b>   |
| 15  | Monkfish tagging and telemetry studies that focus on basic life history and habitat use.  | <b>One potential use:</b> monkfish was proposed as a species to monitor to assess adverse & beneficial impacts of wind farm development in MA & RI-MA WEAs. | <del>Strategic (future needs)</del><br><b>Urgent (essential)</b> | Underway | Monkfish  | Population dynamics, Habitat, Wind energy | RSA has funded tagging work in recent years partly tied with age validation work (eg: 2020 RSA project). No NEFSC work. <b>The Monkfish PDT recommends changing the rating from strategic to urgent, as wind farm development is ongoing.</b>   |
| 30  | Develop guidance for rejecting stock assessments and next steps, including how to set new biological reference points if an assessment/model is rejected. | Would improve the stock assessment process.   | Urgent (essential)   | Underway | Multiple, <b>monkfish, small-mesh multispecies</b>      | Stock assessment                          | Badly needed. NRCC has started efforts on BSIA. SMS <b>and monkfish</b> stock assessments have been previously rejected & this issue could arise again in future assessments. <b>The Monkfish PDT recommends adding monkfish here.</b>  |

|    |   |  |                          |          |  |                      |  |
|----|---|--|--------------------------|----------|--|----------------------|--|
| 46 | Investigate monkfish age validation.  | Resolve the age and growth issues that prevented the stock assessment model from being updated in the 2016 Operational Assessment. | Important (near term)    | Unknown  | Monkfish   | Fisheries management | Age validation is a NEFSC priority. NEFSC involved in Bank et al (2020). The Monkfish PDT recommends merging this priority with #14 as it is duplicative.  |
| 47 | Investigate monkfish discard mortality rate estimates across gear types.  | This could help in estimating discards and setting the ABC improve stock assessments.  | Strategic (future needs) | Underway | Monkfish   | Fisheries management | Was a 2020-2021 Monkfish RSA priority. The assumed rate is currently set at 100%. Outside of NEFSC expertise. RSA project on monkfish discard mortality in scallop gear (VIMS/UNE) showed potential for survival (Weissman et al 2021). The Monkfish PDT recommends clarifying the potential use of the data. Publication added.       |
| 64 | Identify gears and/or methods that would reduce bycatch and/or improve discard survival of unwanted catch, that may change the ratio of component catch species or improve size and species selectivity of gear for groundfish, monkfish, herring and skates. | Minimize bycatch   | Urgent (essential)       | Underway | Northeast multispecies, Monkfish, Atlantic herring, Skates | Bycatch, Gear        | Was a 2020-2021 Monkfish RSA priority. Many projects, e.g., BREP 2018 award creating bycatch avoidance model for rec fishery; small-mesh belly panel to reduce flatfish. Four S-K projects on lobster trap bycatch & haddock trawls. 2013 S-K project on reducing sturgeon bycatch in monkfish gillnet. Outside of NEFSC expertise.    |
| 94 | Study trophic interactions of monkfish predation on other species and monkfish cannibalism; recognize the need to incorporate monkfish into prey assessments.   |  | Strategic (future needs) | Underway | Monkfish   | Ecosystems           | Was a 2020-2021 Monkfish RSA priority. NEFSC Food Habits Program and evacuation rate studies underway, through insufficient to estimate predation rates. Recent A. Herring assessments have quantified consumption of herring by monkfish. Multispecies modeling efforts are underway. The Monkfish PDT recommends adding these notes. |