Framework Action to Reduce Sturgeon Bycatch in Dogfish and Monkfish Fisheries

Joint Action of the MAFMC and NEFMC

Joint Committee Meeting, May 17, 2023
Meeting Outline and Objectives

• Review Action Plan recommendations and recent observer data
• Discuss draft alternatives developed by the Sturgeon Bycatch FMAT/PDT and any other alternatives to consider
• Review input from joint AP meeting (5/16)
• Potentially make recommendations to the Councils on the range of alternatives to be considered for reducing bycatch of Atlantic sturgeon in the monkfish and spiny dogfish gillnet fisheries
Action Tentative Timeline

- April – FMAT/PDT Meeting(s) (4/21) to begin development of range of alternatives, data needs
- **May** – AP *(yesterday)* and Committee *(TODAY)* Meetings to recommend range of alternatives
  - Joint meetings of the spiny dogfish and monkfish APs/Ctes
- **June** – Framework Meeting #1 for both Councils: **approve range of alternatives** (can be refined before final action but no new categories/major changes)
- June-October – Staff and PDT/ FMAT analyze alternatives and impacts, develop final action document
  - August – Presentation at ASMFC summer meeting on alternatives
  - If Councils do not agree on alt. range in June, AP/Cte meetings will be needed in July/August/September
- **Early November** – AP and Committee meetings to recommend preferred alternative(s)
- **December** – Final Action for Both Councils
- **2024** – rulemaking/implementation
Background

• 2021 Biological Opinion – Atlantic sturgeon bycatch must be reduced in Federal large mesh gillnet fisheries by 2024 (≥ 7")

• Atlantic Sturgeon Bycatch Working Group – formed and produced an action plan that recommended a Council process be used to meet needed reduction
  
  Potential measures recommended in plan:
  • Modifications to gear
  • Reductions in soak time
  • Focused time/area measures (plan identified hotspot areas)

• Councils agreed to joint dogfish and monkfish action given those fisheries’ contribution to bycatch and their joint management
Hotspots: Federal Large Mesh Gillnet

Figure 1. Atlantic sturgeon bycatch in the large mesh gillnet fishery within the Gulf of Maine and Southern New England statistical areas based on observer data from 2015-2020 and presented in the action plan. Circles indicate areas of sturgeon bycatch hotspots.

Figure 2. Atlantic sturgeon bycatch in the large mesh gillnet fishery from statistical areas off New Jersey to Virginia based on observer data from 2015-2020 and presented in the action plan. Circles indicate areas of sturgeon bycatch hotspots.
Low-profile Gillnet Gear

- Low-profile gillnet gear in the monkfish fishery has been shown to reduce sturgeon bycatch in the New Jersey region.

- Low-profile gear specifications based on research by Fox et al. (2012 and 2019) and He and Jones (2013) in NJ:
  - Mesh size ranging from 12 to 13 inches,
  - Net height ranging from 6 to 8 meshes tall,
  - Tie-down length of 24 inches,
  - Tie-down spacing of 12 feet, and
  - Primary hanging ratio of 0.50.

- Not tested in spiny dogfish fishery or monkfish in New England yet.
Action Objectives

• Develop measures that minimize impacts to Atlantic Sturgeon in the monkfish and spiny dogfish gillnet fisheries in federal waters.
• Measures must involve only a minor change that do not alter the basic design, location, scope, duration, or timing of the federal large mesh gillnet fisheries (≥ 7") considered in the Biological Opinion.
Draft Alternatives: Measures By Stat. Area (in federal waters)

NMFS
Statistical area w/ hotspots:

- **SNE**: 539
- **NJ**: 612, 615, 614
- **DE/MD/VA**: 621, 625, 631
Draft Alternatives: Monkfish (Action 1)

• Alternative 1 - No Action/Status Quo
• Alternative 2 - Time-of-Year and/or Area Restrictions

New Jersey
• Option A - Low-profile gillnet gear in federal waters off New Jersey in December
• Option B - Low-profile gillnet gear in federal waters off New Jersey in May
• Option C - Low-profile gillnet gear in federal waters off New Jersey year-round
• Option D - Maximum of 48-hour soak time in federal waters off New Jersey in May

Southern New England
• Option E - Maximum of 48-hour soak time in federal waters off Southern New England in May
• Option F - Maximum of 48-hour soak time in federal waters off Southern New England in June

Note: Multiple options can be selected within each alternative (i.e., not mutually exclusive).
Monthly Trends in Bycatch: Monkfish

- Sturgeon takes by month and stat area in hotspots
- **SNE**: May and June
- **NJ**: May and December

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<th>NJ hotspot 614</th>
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(Table 4 in the appendix)
# Soak Time Data: Monkfish

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<th># of Sturgeon Takes</th>
<th>Minimum Soak Duration (# hours)</th>
<th>Maximum Soak Duration (# hours)</th>
<th>Average Soak Duration (# hours)</th>
<th># Hauls</th>
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<td>168</td>
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Notes: ‘C’ indicates confidential data with < 3 hauls.
Draft Alternatives: Monkfish

*New Jersey, stat areas 612, 614, 615 (federal waters)*

- **Option A - Low-profile gillnet gear in December**

- **Option B - Low-profile gillnet gear in May**
  - Spring concentrations were closer inshore, mix of state/federal waters. Observer data from 2015-2022 highlighted May.
Draft Alternatives: Monkfish

New Jersey, stat areas 612, 614, 615 (federal waters)

- Option C - Low-profile gillnet gear **year-round**
  - Low-profile net for some of the year may have equivalent impacts to fishermen as year-round use if they do not switch nets --> would further decrease sturgeon bycatch
  - Harbor Porpoise TRP requires min. twine size of 0.9 mm for large mesh (7” or greater) gillnets from Jan-Apr. Twine size may not work well with the low-profile gillnet gear tested for sturgeon bycatch—may need to remove or adjust this alt.

- Option D - **Maximum of 48-hour soak time in May**
  - Gear needs to be soaked for more than a day to catch enough monkfish
  - Avoids safety concerns with bad weather on following day for net retrieval
Draft Alternatives: Monkfish

Southern New England, stat area 539, federal waters

- Option E - Maximum of 48-hour soak time in May
  - Observer data on trips targeting monkfish from 2015-2022, May and June had the highest contribution to sturgeon bycatch for this area.
  - Interactions with sturgeon were also observed in winter, however, net retrieval is a safety concern during these months.

- Option F - Maximum of 48-hour soak time in June
  - Same as above, June had higher interactions than May
Draft Alternatives: Spiny Dogfish (Action 2)

- Alternative 1 - No Action/Status Quo
- Alternative 2 - Time-of-Year and/or Area Restrictions

**New Jersey – federal waters**
- Option A - Soak time restrictions from **November 1 - December 31**
- Option B - Soak time restrictions in **April**

**Delaware, Maryland, Virginia – federal waters**
- Option C - Soak time restrictions from December 1 – January 31
- Option D - Soak time restrictions in March

**Two sub-options under each option A-D (select one):**
- Sub-option 1 - No overnight soaks allowed
- Sub-option 2 – Maximum of 24-hour soak time

*Note: Multiple options can be selected within each alternative (i.e., not mutually exclusive).*
Monthly Trends in Bycatch: Dogfish

- Sturgeon takes by month & stat area in hotspots
  - **NJ**: April, November, and December
  - **DE/MD/VA**: December, January, and March

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(Table 5 in the appendix)
### Soak Time Data: Dogfish

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<th>Month</th>
<th># of Sturgeon Takes</th>
<th>Minimum Soak Duration (# hours)</th>
<th>Maximum Soak Duration (# hours)</th>
<th>Average Soak Duration (# hours)</th>
<th># Hauls</th>
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Draft Alternatives: Dogfish

New Jersey, stat areas 612, 614, 615 (federal waters)

- Option A - Soak time restrictions from **November 1 - December 31**
  - Observer data targeting spiny dogfish from 2015-2022, November and December had the highest contribution to sturgeon bycatch in the winter months in these areas, hotspot is in federal waters in winter

Two sub-options (select one):

- Sub-option 1 - **No overnight** soaks allowed
  - In contrast to monkfish, some fishermen indicated that no overnight soaks is feasible for dogfish, may vary by fisherman and region.

- Sub-option 2 – Maximum of **24-hour** soak time
  - Allows for a longer soak time than sub-option 1
  - May present the same potential safety issue described in the monkfish alternatives during winter months
  - Addresses a concern with restricting overnight soaks. A fisherman said that dogfish are often caught at night. This occurrence may vary by season or region so more input is needed.
Draft Alternatives: Dogfish

- **New Jersey, stat areas 612, 614, 615 (federal waters)**
  - Option B - Soak time restrictions in **April**
    - Similar rationale to Option A however hotspot is more inshore in spring, so equivalent state waters measures through the ASMFC’s complementary plan would help ensure effective reduction

Two sub-options (select one):

- Sub-option 1 - **No overnight** soaks allowed
- Sub-option 2 – Maximum of **24-hour** soak time --> may not present same safety issues in April as in winter months
Draft Alternatives: Dogfish

- Delaware, Maryland, Virginia, stat areas 621, 625, and 631 (federal waters)
  - Option C - Soak time restrictions from Dec. 1 – Jan. 31
    - Increased interactions offshore off Ocean City, MD (stat area 621), Chincoteague, VA (stat area 625) per Action Plan & in stat area 631 further south per dogfish observer data
    - No overnight soak and max of 24-hour soak sub-options rationale applies --> possible safety concerns in winter for 24-hour soak time restriction

- Option D - Soak time restrictions in March
  - Same rationale as Option C, however hotspots were partially in state waters in spring, complementary state waters restrictions would be beneficial
  - No overnight soak and max of 24-hour soak sub-options rationale applies
Measures Discussed but Not Included (for Monkfish and Dogfish)

- Widespread use of low-profile nets in the monkfish fishery, or use of low-profile nets in the dogfish fishery
- Year-round soak time restrictions
- Overnight soak time restrictions for the monkfish fishery (overall and by particular season(s))
- Area closures
- Gulf of Maine soak time restrictions for the monkfish fishery
- Complementary ASMFC spiny dogfish measures in state waters

**NOTE: If the AP and/or Committee is interested in any of these measures that were discussed but not included within the draft alternatives then those can be added within the range of alternatives to be considered by both Councils in June.**
Additional Considerations

• Use of EFPs would be beneficial to better understand the effectiveness of low-profile nets in the dogfish fishery and other regions for monkfish.

• Unable to address state waters issues in this action. Complementary state plan for dogfish but not for monkfish.

• VMS data can be evaluated in the future if need be; the PDT/FMAT cautions against the reliability of these data given protected species interactions are not regularly reported on VMS and not all vessels are required to use VMS, especially in the Mid-Atlantic region.
Input from Joint AP re-Monkfish (11 advisors)

**New Jersey:** measures apply inshore within 3-6 miles in statistical area 612, 614, 615 in the spring given sturgeon are more nearshore (i.e., change Options B and D to apply more inshore vs stat areas)

- Prefer no measures on low-profile gillnet gear – focus on shorter closure or soak time of 48 – 72 hours, with a preference for 72 hours
- Do not prefer measures by stat areas given they're too large

**Southern New England:** Delete options for SNE (Options E and F) given the low interactions (not a hotspot relative to further south)

**Overarching comments:**

- Need better data and science regarding sturgeon and monkfish assessments and state vs. federal sturgeon interactions
- Generally thought the interactions were a state issue vs federal
- Overall decline in gillnet effort so expect a decline in sturgeon interactions
Input from Joint AP re-Dogfish (8 advisors)

**New Jersey:** No overnight soak times (sub-option 1) seemed reasonable for some fishermen given most are day-fishing (i.e., would apply to Options A and B)

**Delaware/Maryland/Virginia:** preference for 48 – 72-hour soak time (i.e., new options for 48 and 72-hour soak duration); not viable to have no overnight soak time restrictions for this area

**Overarching comments/questions:**

- Consider smaller areas than by stat area for spring for NJ (Option B) and Delmarva (Option D) - potentially 3-6 miles or 3-9 miles from shore
- Unclear if measures apply to only >= 7" mesh or if measures are being considered for smaller mesh
- Need better data and science regarding sturgeon assessments and state vs. federal sturgeon interactions
- Overall decline in gillnet effort and dogfish quotas so expect a decline in sturgeon interactions
Committee Questions/Discussion

- Feasibility of current draft alternatives?
- Should others be added for consideration?
- Should any be removed or adjusted?
- Would short (~2 week) area closures be preferred over proposed 1-2 month soak time/gear modification restrictions?
- Any additional information or data to inform range and development of alternatives?
Backup Slides
Note: All closures are for large-mesh (≥7 inches) gillnet gear, except Mudhole North and Mudhole South Management Areas are also closed to small-mesh (>5 - <7 inches) gillnets Feb 1-Mar 15.
Mid-Atlantic Large Mesh Gillnet Restricted Area for sea turtles

Gillnets >7 inches are prohibited during the times and areas depicted.
• Gillnet trips based on VTR data from 2011-2015 from the Mid-Atlantic Ocean Data Portal

• More recent VTR data or data by species were not available
Table 1115. Number of positive sturgeon hauls per area by target species. Only includes targeted species that encountered sturgeon on 10 or more hauls.

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FMAT/PDT Membership

- Karson Cisneros, MAFMC
- Robin Frede, NEFMC
- Jenny Couture, NEFMC
- Spencer Talmage, GARFO SFD
- Cynthia Ferrio, GARFO SFD
- Lynn Lankshear, GARFO PRD
- Bridget St. Amand, NEFSC
- Jason Boucher, NEFSC
- James Boyle, ASMFC

Other technical expertise as needed:
- Jason Didden, MAFMC dogfish & monkfish staff
- GARFO APSD
- OLE/Coast Guard