Outline of presentation

1. Review AP policies and ground rules (AP only)
2. 2020 herring priorities and working timelines
3. Discuss goals and potential range of alternatives for Framework 7 (GB spawning action) *(potential motions)*
4. Develop Framework 8 (2021-2023 specs and herring measures that potentially inhibit mackerel fishery) *(potential motions)*
5. Review and approve Council research priorities (herring) *(potential motions)*
Part I. NEFMC Advisory Panel Policies

- **Welcome and thank you for serving!**

- **Role:** Support developing or amending an FMP or special issue or problem. All AP recommendations are advisory to the Committee, not binding for Committee or Council.

- **Membership:** Maximum of 15 individuals
  1) Actively engaged in some aspect of commercial or recreational fisheries.
  2) Knowledgeable in the conservation and management of a fishery.
  - To the extent possible, membership shall reflect broad cross-section of interests and expertise from geographical distribution, user groups, etc.
  - The recreational fishing industry shall have at least one seat on the herring and habitat APs.
  - Other Councils may be invited to name advisors to serve.
Organization:
- AP Chair designated by Committee Chair, reviewed by Executive Committee and approved by Council Chair.
- AP Chair expected to routinely communicate meeting results to relevant committee.

AP Chair will be seated at the Committee table. They may not vote, but can freely enter the discussion. AP Chairs must identify comments as “discussed by the AP” or “personal input”. AP Chairs must leave committee table when providing personal comments.

- A vice-Chair can be designated, but is not required. The vice-Chair may be authorized to attend committee meetings in place of the AP Chair with advance approval of the Executive Director.

Commitment:
- Number of meetings varies by panel and year – range of 0-5 per year.
• **Appointments:**
  - After three years performance and attendance will be reviewed. If needed, new members will be solicited to fill any vacancies.
  - All members must apply for re-appointment at the end of each 3-year term.
  - Neither proxies nor designees shall serve in place of appointed advisor.
  - Prior to selection, nominees are subject to additional level of review by NOAA’s Office of Law Enforcement.

• **Termination:**
  - The Council *may* replace an AP members at it’s discretion if he/she:
    1) transfers employment or moves;
    2) absent for two or more consecutive meetings without adequate notification;
    3) appears unable or unwilling to fulfill obligations;
    4) area of expertise no longer required; or
    5) for just cause (e.g. marine violation, failure to show respect for other panel members, disruptive behavior, etc.).
• **Travel Authorization and Reimbursement:**
  - Eligible for reimbursement of travel expenses incurred while attending authorized meetings (e.g. mileage, hotel overnight, meals, etc.), subject to availability of funds.
  - Reimbursed from APs primary residence, as reflected on application.
  - To qualify for overnight lodging, your travel distance must be over 50 miles or requires you are available before 6 a.m. or after 8 p.m.
  - Questions on travel? Contact us before travel takes place.

• **What to expect:**
  - Staff may send poll by email before a meeting to identify possible meeting dates, and sometimes a date will just be selected by the Committee Chair.
  - Prior to a meeting staff will email memo from Chair with meeting purpose.
  - Monitor your emails from staff and check website frequently.
  - To the extent possible, come prepared with draft motions and discussion points.
Meeting Ground Rules

- Come to every meeting prepared, when possible review documents from staff before arriving at the meeting.
- Follow the agenda as managed by the Chair (i.e. stay on topic).
- Participate in the discussion! You are here for a reason – share your knowledge.
- Listen respectfully to the comments of others; give other opinions honest consideration.
- Be open to points of view that may differ from your own.
- Discuss the issues – avoid personal attacks.
- Avoid profane language.
- Sustain a professional meeting environment before, during and after meetings.
Behaviors that are unacceptable

- Ridicule of another person’s opinions or suggestions.
- Threats aimed at anyone.
  (Council/AP/PDT member, staff, public).
- There is a zero tolerance harassment policy.
  This includes verbal, non-verbal or physical harassment that has the purpose or effect of creating a hostile environment. It also includes unwelcome sexual advances, requests for sexual favors, and other verbal, nonverbal or physical conduct based on sex.
- Discrimination on the basis of: sex, race, religion, color, national origin, age, sexual orientation, disability, or reprisals for whistle blowers.

Council leadership is committed to these standards.
Please contact the Council Chair, Vice Chair, or Executive Director if you are concerned that these standards are not being upheld.
Thank you!

- The Council appreciates your time and effort.
- Your participation is a critical step in this overall process.
- Your input is important and valuable.
- We look forward to working with you.
- Any questions, contact our staff anytime.

(978) 465-0492
Part II. 2020 Herring Priorities and timelines

1. 2021-2023 specifications
2. Action to adjust measures in herring plan that potentially inhibit optimizing yield in mackerel fishery
3. Atlantic herring management track assessment (June 2020)
4. Action to consider GB spawning closures

- **Staff** – coordination with MAFMC *(discussion paper on coordinated mngt of RH/S)*
- **Staff** – coordination with ASMFC *(support PDT on Addendum III, track Area 1A days out program, etc.)*
## Part II. 2020 priorities and timelines (Doc. #3)

<table>
<thead>
<tr>
<th></th>
<th>IFM</th>
<th>Am. 8</th>
<th>FW6 (2019-2021 Specs)</th>
<th>FW7 (GB Spawning)</th>
<th>FW8 (2021-2023 Specs)</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td></td>
<td></td>
<td>Proposed rule (Jan 28)</td>
<td></td>
<td></td>
<td>Council initiate action</td>
</tr>
<tr>
<td>Feb</td>
<td></td>
<td>Final rule (Feb 7)</td>
<td>Final rule and measures effective (target)</td>
<td></td>
<td></td>
<td>Cmte develop</td>
</tr>
<tr>
<td>March</td>
<td></td>
<td>Implementation and Outreach</td>
<td>Final rule (target)</td>
<td></td>
<td></td>
<td>Cmte develop</td>
</tr>
<tr>
<td>April</td>
<td></td>
<td>Herring measures effective</td>
<td>Measures effective (target)</td>
<td></td>
<td></td>
<td>ASMFC meeting - Approval of Addendum III</td>
</tr>
<tr>
<td>May</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>NEFSC management track assessment (6/22-6/23)</td>
</tr>
<tr>
<td>June</td>
<td></td>
<td></td>
<td>Council update - possible approval of alts for analysis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>July</td>
<td></td>
<td></td>
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<tr>
<td>August</td>
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<td></td>
</tr>
<tr>
<td>Sept</td>
<td></td>
<td></td>
<td>Final action</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oct</td>
<td></td>
<td></td>
<td>EA finalized by Council staff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nov</td>
<td></td>
<td></td>
<td>EA review-NMFS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec</td>
<td></td>
<td></td>
<td>EA finalized by Council staff</td>
<td></td>
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</tbody>
</table>

- **Council Staff**
- **Other**
  - Staff on ASMFC PDT - Addendum III
  - ASMFC meeting
  - NEFSC AOP Meeting
  - ASMFC meeting - Approval of Addendum III
  - NEFSC management track assessment (6/22-6/23)
  - Coordinate with MAFMC staff on RH/S joint cap discussion document
## Potential herring meetings in 2020*

<table>
<thead>
<tr>
<th>Year</th>
<th>Meetings</th>
<th>Agenda</th>
<th>Council</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>Jan</td>
<td>Initiate FW8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3-Mar AP/CMTE</td>
<td>Cmte develop mackerel measures in FW8; for FW7 develop problem statement, PDT tasking, and possible range of alternatives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Late March / Early April PDT</td>
<td>Develop mackerel measures and initial analysis for FW8; background tasking for FW7 and initial alternatives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>April</td>
<td>Review of work discussed at March meeting</td>
<td></td>
</tr>
<tr>
<td></td>
<td>May PDT</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>June (early) AP/CMTE</td>
<td>Identify range of alts for analysis for FW7; finalize range of alternatives for FW8</td>
<td></td>
</tr>
<tr>
<td>May</td>
<td>June (late) Assessment</td>
<td>June 22/23 - update assessment with 2019 data, initial results presented to Council (6/25)?</td>
<td>Update</td>
</tr>
<tr>
<td>July</td>
<td>PDT</td>
<td>analysis for FW8</td>
<td></td>
</tr>
<tr>
<td>August (early)</td>
<td>SSC</td>
<td>Recommend OFL/ABC for 2021-2023, review assessment results</td>
<td></td>
</tr>
<tr>
<td>Sept</td>
<td>AP/CMTE</td>
<td>Review FW8 select preferred</td>
<td>Final action FW8</td>
</tr>
<tr>
<td>Oct</td>
<td>PDT</td>
<td>final analysis for FW7, input on MAFMC RH/S document</td>
<td></td>
</tr>
<tr>
<td>Nov</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td>Jan AP/CMTE</td>
<td>Review FW7 select preferred</td>
<td>Final action FW7</td>
</tr>
</tbody>
</table>

* All subject to change
## Long-term planning for Herring FMP

<table>
<thead>
<tr>
<th>Year</th>
<th>Actions</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>1</td>
<td>Management Track Assessment</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2021-2023 Specifications (FW8)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>GB spawning (FW7)</td>
</tr>
<tr>
<td>2021</td>
<td>1</td>
<td>GB spawning (FW7)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Management Track Assessment</td>
</tr>
<tr>
<td>2022</td>
<td>1</td>
<td>Management Track Assessment</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2023-2025 Specifications</td>
</tr>
<tr>
<td>2023</td>
<td>1</td>
<td>Reconsider Industry-Funded Monitoring</td>
</tr>
</tbody>
</table>

No action needed today – just reviewing priorities and timelines
Part III. FW7 Draft Action Plan (Doc. #4)

- **Objective** – Protect spawning adults of Atlantic herring to increase overall herring biomass (DRAFT).


- **NEPA analysis** – Environmental Assessment expected.

- **PDT membership** – page 2.
GB spawning discussion document (Doc. #5)

- Gulf of Maine Research Institute (GMRI) awarded contract in May 2019 – 6 month timeline.
- Scope: Review historical and current scientific research and other relevant information about offshore spawning of At. Herring.
- Final report presented to Council in December 2019.
Outline of discussion document

1.0 Background - Review of herring biology, spawning and management, other examples

2.0 Analysis of existing data sets – dockside program, federal trawl survey, larval tows, food habits database (fish stomachs), herring egg EFH, historical maps, interviews.

3.0 Building a consensus - model for inferring spawning areas Consideration of existing maps and datasets:

4.0 Herring Fishing Effort

5.0 Potential impacts on offshore spawning

6.0 PDT research recommendations
1.0 Background

- Spawning info primarily from Amendment 8.
- Spawning closures as a management tool.
- History of spawning closures in the GOM.
- Current approach used in GOM.
- Examples of herring spawning protections in other areas of the world – not exhaustive.
## 2.0 Analysis of existing datasets

<table>
<thead>
<tr>
<th>Data Source</th>
<th>1970s</th>
<th>1980s</th>
<th>1990s</th>
<th>2000s</th>
<th>2010s</th>
</tr>
</thead>
</table>

- **ME DMR Portside**: 17,529 fish (from 583 trips) - location, date, maturity stage, GSI (Areas 1B, 2 and 3 only)
- **Mass DMF Portside**: 2,725 fish - location, date, maturity stage, GSI
- **Trawl surveys**: 46,242 tows - location, date, maturity stage (focus on fall survey)
- **Larval surveys**: 6,446 tows with herring larvae - location, date, size (2,371 tows with larvae < 9mm)
- **Food Habits Database**: >650,000 stomachs - location, date, presence of herring eggs (113 positive for herring eggs)

As well as EFH maps, historical maps, information from industry interviews.
3.0 Building a consensus
Overlap of spawning indicators from multiple sources

![Map showing overlap of spawning indicators from multiple sources](image-url)
4.0 Fishery Overlap
5.0 Potential Impacts

- **Potential fishery impacts** – on spawner biomass, disturbance of benthic egg mats, potentially disrupting spawning activity.

Potential areas of overlap with groundfish, sea scallop, surf clam/ocean quahog fisheries (Fig. 5.1.1 – 5.1.5) – annual maps only.

- **Potential climate threats (multiple references cited)**

Somewhat buffered due to ability to shift distribution from warming waters – highly exposed but low sensitivity. Herring will likely shift northward. Strong natal homing for spawning – could delay or shift north with less favorable conditions for success. Calanus has decreased in eastern Maine – favored food source.

- **Potential threats from predators**

Overall predation pressure seems constant varies by species/year, competition with other herring and mackerel, egg predation (focus on haddock).
6.0 Research Recommendations (PDT)

- Developed by the Herring PDT (which includes all members of the ASMFC TC)

1. Enhancing portside sampling – most cost effective
2. At-sea collection of spawning data – need to evaluate feasibility first
3. Fishery independent survey – more expensive, 5 years or so, but data from entire area and season.

- Herring stock at low abundance, may not be representative of stock at larger size.
Highlights

• Multiple data sources were reviewed and analyzed and all pointed towards spawning in two locations along northern edge of GB; one in the west (Nantucket Shoals/Great South Channel) and one in the east (Northern Flank).
• Spawning takes place primarily between September and October (all years and all areas).
• Spring spawning is not important.
• Industry interacts minimally with spawning grounds (mostly in the east).
FW7 – Potential action items today

- Discuss objective of action – review draft and clarify intent
  - Is objective to protect spawning adults, eggs, or both?
  - Should other fisheries be considered, just herring?
  - Which areas – Council motion said Area 1B, 2 and 3 – is intent to have one in each mngt area or based on spawning grounds? GB only? GB and Nantucket Shoals?
  - Season – default dates only – real-time monitoring program to trigger closures based on maturity of landed fish?
- Identify range of likely alternatives.
- Specific PDT tasking to support this action.
Part IV. FW8 Draft Action Plan (Doc. #6)

- **Objective** – set specifications for 2021-2023 using most recent assessment (June 2020); adjust measures in herring plan that potentially inhibit OY in mackerel fishery.

- **Timeline** – Initiate Action - Jan 2020;
PDT/AP/Cmte develop - Feb-Aug
Final action - Sept 2020
Target implementation - early spring 2021.

- **NEPA analysis** – Environmental Assessment expected.

- **PDT membership** – page 2.
## FW6 Specifications

<table>
<thead>
<tr>
<th></th>
<th>2020 (mt)</th>
<th>2021 (mt)</th>
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</thead>
<tbody>
<tr>
<td>OFL</td>
<td>41,830</td>
<td>69,064</td>
</tr>
<tr>
<td>ABC</td>
<td></td>
<td>16,131</td>
</tr>
<tr>
<td>Management Uncertainty</td>
<td>4,560</td>
<td></td>
</tr>
<tr>
<td>ACL</td>
<td>11,571</td>
<td></td>
</tr>
<tr>
<td>Border Transfer</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>US at-sea processing</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Area 1A sub-ACL (28.9%)</td>
<td>3,344</td>
<td></td>
</tr>
<tr>
<td>Area 1B sub-ACL (4.3%)</td>
<td>498</td>
<td></td>
</tr>
<tr>
<td>Area 2 sub-ACL (27.8%)</td>
<td>3,217</td>
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</tr>
<tr>
<td>Area 3 sub-ACL (39%)</td>
<td>4,513</td>
<td></td>
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<tr>
<td>Fixed gear set-aside</td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>Research set-aside (of subACLs)</td>
<td>3%</td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>RH/S catch caps</th>
<th>2020/2021 (mt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MWT GOM</td>
<td>76.7</td>
</tr>
<tr>
<td>MWT CC</td>
<td>32.4</td>
</tr>
<tr>
<td>MWT SNE/MA</td>
<td>129.6</td>
</tr>
<tr>
<td>BT SNE</td>
<td>122.3</td>
</tr>
</tbody>
</table>
Adjust measures that potentially inhibit mackerel fishery

- To date, two specific measures discussed for inclusion:
  1. **Herring possession limit:** currently when 92% of a sub-ACL for herring in a management area, or 95% of the total ACL is estimated to be caught, a herring possession limit is implemented (2,000 lbs.) in that area or fishery wide. *(This level of catch is not sufficient to target mackerel in most cases, idea to increase up to 40,000 lbs.)*
  2. **Seasonal closure of Area 1B:** currently area closed Jan-Apr. Traditionally, mackerel fishing occurred in that area in the winter. *(Closure of Area 1B limits access to mackerel).*

- Other measures have been discussed (closure of Area 1A, spawning closures, GB haddock and RH/S catch cap AMs.), but these are not on the list for this action.
Adjust measures that potentially inhibit mackerel fishery

- Herring and mackerel often caught together, many trips land both species.

Ratio of Herring : Mackerel landings on MWT trips (2011-2016)

Mackerel landings from Jan-June from VTR data
FW8 – Potential action items today

- **Identify specification measures that are likely to have alternatives and which are not (too early to say? Can focus on this later.).**
  - OFL/ABC, mngt uncertainty buffer, US ASP, sub-ACL %s, BT, RSA, RH/S catch caps, anything new?
- **Finalize range of alternatives for mackerel issue (what is in and what is out)?**
  - IN – possession limit and Area 1B seasonal closure
  - OUT – bycatch AMs, Area 1A closures, MWT seasonal closure, spawning closures in Area 1A.
- **Specific PDT tasking to support this action.**
In 2019 the Council approved 16 herring specific research priorities.

PDT recommends several new items and clarifying input from NEFSC on existing priorities (Green text in Table 1).

When the SSC recommended OFL/ABCs for 2019-2021 they drafted one additional recommendation (Oct 2018) (further investigate recent low recruitment and possible drivers).

Final GB Spawning discussion document included three research recommendations (1. Enhance portside efforts for GB trips; 2. New acoustic survey on GB; and 3. examine feasibility of collecting spawning data by observers and portside samplers).

Final debrief of Herring MSE for Amendment 8 had over a dozen specific improvements to consider for current MSE models.