Note: This document was provided by GARFO to Jeff Kaelin (Lund's Fisheries) in response to the EFP application submitted by Lund's Fisheries and partners. By request, this document is provided with the briefing materials for the April 27, 2023 EOP Committee meeting.

Overview of Thread Herring EFP and Questions for Resolution

Purse seine fisheries in the U.S. Atlantic are known to capture sea turtles. This project is proposed to occur in the same areas and times of year when sea turtles are present. Therefore, we expect that interactions between the gear proposed for the EFP and sea turtles may occur. Atlantic sturgeon may also overlap with the proposed fishery, depending on when and where it is prosecuted.

In order to ensure the project has coverage under the Endangered Species Act, we need to prepare a formal consultation, which results in a biological opinion and an incidental take statement (ITS). The ITS provides coverage for any take of endangered species, up to the level authorized in the ITS. If the ITS is exceeded, we would reinitiate consultation to evaluate the circumstances that led to the exceedance and, if necessary, revise conservation measures and issue a new ITS.

To complete a formal consultation, we need to prepare a biological assessment that describes the project and provides the information we need to analyze the likely impacts to endangered species and generate the ITS. The biological assessment (BA) would document details about the project, including:

- Vessels
 - Number of purse vessels used per haul
 - o Number of carrier or steamer vessels per haul
- Fishing Behavior and Effort
 - o Area
 - What are the specific fishery statistical areas where experimental fishing will occur?
 - How is the area to be fished determined? Will a spotter plane be used (similar to the Gulf of Mexico menhaden purse seine fishery)?
 - Tow duration
 - Time to deploy and circle net
 - Time to purse net
 - Time to pump out net
 - Seasonality
 - How will the area fished vary by season?
 - How will the depth fished vary by season?
 - How will the number of trips vary by month?
 - The proposal states that per trip, one 1 to 5 sets will be taken; how will this vary by month? Do you expect more sets in one month over another?
 - Will Fish Aggregating Devices be used?

- Pumping Gear
 - o Is a grate used on the pump? If yes, what are the dimensions of the grate?
 - What is the suction velocity of the pump?

Background

The determination that we need a formal consultation under the ESA is primarily related to the expectation that the incidental take of sea turtles (and possibly Atlantic sturgeon) is likely. GARFO has previously listed the Mid-Atlantic menhaden purse seine fishery under the Sea Turtle Annual Determination given concerns of sea turtle interactions with this fishery. The fishery was eligible to carry observers through 2019. We have considered relisting the fishery but have not done so as we do not anticipate having funds to observe the fishery. The Gulf of Mexico menhaden purse seine fishery is currently listed on the 2023 Sea Turtle Annual Determination given similar concerns.

In combination with an ITS, a formal biological opinion would include measures to recommended to mitigate take, including such things as:

- Post and maintain a lookout to watch for protected species in the fishing area for at least 30 minutes prior to commencing operations. If protected species are sighted, do not deploy the gear until the species has left the area or "move-on" to a different fishing area.
- Area fished. Can we restrict experimental fishing to Federal waters in depths greater than the 50-meter depth contour? This would help mitigate potential interactions with Atlantic sturgeon.
- If a sea turtle is observed enclosed in a purse seine but not entangled, it should be released immediately (e.g., by dropping the cork line) from the purse seine.
- If a sea turtle is observed entangled, fishing operations should be stopped and not start again until the turtle has been disentangled and released.
- The vessel would be expected to carry a copy of the sea turtle handling and resuscitation placard (provided by NMFS) on board and follow the requirements. In the event that a sea turtle is observed to be non-responsive, it must be brought onboard and resuscitation must be attempted.
- Potential monitoring. The project should propose to use human observers on 100% of trips, and/or to use electronic monitoring (cameras), such that cameras are mounted in a location that clearly observes the pumping operations, with a secondary camera placed in view of the dewatering grate; this is similar to the pilot observer projects being used in the southeast to monitor sea turtle bycatch in the Gulf of Mexico menhaden purse seine fishery. The EM cameras would be hydraulically triggered, and therefore turn on/off based on activation of the pump.