Amendment 9 to the Fishery Management Plan for South Atlantic Shrimp Fishery

Background

The South Atlantic Shrimp Fishery Management Plan (Shrimp FMP) includes a process through which a state can request a concurrent closure of the EEZ to penaeid shrimp harvest after a cold weather event. This is a multi-step process, which includes satisfying criteria for a decrease in shrimp abundance, review and recommendation by the South Atlantic Council, followed by a closure notice published by the NOAA Fisheries Regional Administrator. The South Atlantic Council is concerned this administratively burdensome process may unintentionally hinder protections for the overwintering stock affected by cold weather. Therefore, the South Atlantic Council is seeking to explore alternate closure request processes to improve the timeliness and effectiveness of the concurrent closures.

Additionally, the South Atlantic Council will consider modifications to the minimum stock size threshold (MSST) proxy for pink shrimp. MSST represents the threshold biomass level used to determine whether a stock is overfished. Currently, pink shrimp biomass information is captured through the Southeast Area Monitoring and Assessment Program (SEAMAP) survey program, which may not be the most appropriate survey method for pink shrimp. Unlike brown and white shrimp, larvae produced by overwintering pink shrimp in North Carolina may be carried north beyond the SEAMAP sampling range by prevailing currents, and SEAMAP does not sample south of Cape Canaveral where pink shrimp are also known to exist. A proxy for pink shrimp was last addressed in Amendment 6 to the Shrimp FMP in 2004 (SAFMC 2004). Amendment 6 established this biological parameter for pink shrimp based on two thresholds: (a) if the stock diminishes to ½ MSY abundance (½ B_{MSY}) in one year, or (b) if the stock is diminished below MSY abundance (B_{MSY}) for two consecutive years. A proxy for B_{MSY} was established for pink shrimp using catch per unit effort (CPUE) information from SEAMAP data as the lowest values in the 1990-2003 time period that produced catches meeting MSY the following year. In this amendment, the South Atlantic Council will consider other methods of determining population status criteria for pink shrimp and revise the proxy value as appropriate.

Actions in Amendment 9 would:

- Modify the process for a state to request a concurrent closure of the penaeid shrimp fisheries in the adjacent EEZ during severe winter weather.

- Revise the minimum stock size threshold (MSST) proxy for pink shrimp.

Actions & Alternatives

Action 1. Modify the process for a state to request a concurrent closure of the penaeid shrimp fisheries in the adjacent EEZ during severe winter weather

Alternative 1. No Action. Do not modify the process for a state to request a concurrent closure. Currently, the process requires any state requesting a concurrent closure to provide data to demonstrate an 80% decrease in abundance to a review panel, and the panel's recommendations are reviewed at the next Council meeting. After approval by the Council, a letter is sent to the NOAA Fisheries Regional Administrator requesting that the EEZ adjacent to the state be closed to penaeid shrimp harvest. The Regional Administrator then publishes an official notice of closure in the Federal Register.

Alternative 2. A state may request a concurrent closure upon providing information that demonstrates an 80% decrease in shrimp abundance OR information that demonstrates an exceeded threshold for water temperature.

Option a) Water temperature must be 45°F (7°C) or below for at least one week.
Option b) Water temperature must be 46°F (8°C) or below for at least one week.
Option c) Water temperature must be 48°F (9°C) or below for at least one week.

Alternative 3. A state requesting a concurrent closure would send a letter directly to NOAA Fisheries Service with the request and necessary data to demonstrate that criteria have been met.

Option a) Data would be submitted to the Shrimp Review Panel, who would review data and make a recommendation to NOAA Fisheries Service.
Option b) Data would be submitted directly for review by NOAA Fisheries Service.

Action 2. Revise the methodology for determining the minimum stock size threshold (MSST) proxy for pink shrimp and modify the MSST proxy as appropriate

Alternative 1. No Action. Do not revise the pink shrimp MSST proxy. Currently the proxy for the pink shrimp minimum stock size threshold (MSST) is defined as the parent stock size capable of producing maximum sustainable yield (MSY) the following year. The pink shrimp MSST proxy uses the SEAMAP to approximate shrimp spawning biomass.

**Overfishing (MFMT) for all penaeid species is a fishing mortality rate that diminishes the stock below the designated MSY stock abundance (B_{MSY}) for two consecutive years and MSST is established with two thresholds: (a) if the stock diminishes to ½ MSY abundance (½ B_{MSY}) in one year, or (b) if the stock is diminished below MSY abundance (B_{MSY}) for two consecutive years.

A proxy for B_{MSY} would be established for each species using CPUE information from SEAMAP-SA data as the lowest values in the 1990-2003 time period that produced

catches meeting MSY the following year.

Pink shrimp proxy = 0.461 individuals per hectare

Alternative 2. Use another fishery-independent survey for the pink shrimp MSST proxy in addition to SEAMAP. [Sub-alternatives to be added by Shrimp Review Panel]

Alternative 3. Use another fishery-independent survey for the pink shrimp MSST proxy in place of SEAMAP. [Sub-alternatives to be added by Shrimp Review Panel]

Sub-alternative a: Pamlico Sound Survey

Sub-alternative b: others?