## **DECISION DOCUMENT**

for
AMENDMENT 9
to the Fishery Management Plan
for the Shrimp Fishery
of the South Atlantic Region



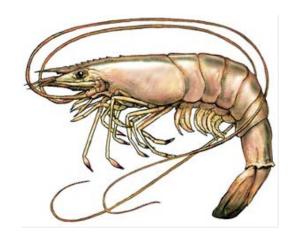
Savannah, GA March 2012

### **Background**

In September 2011, the Council reviewed several potential items for inclusion in Shrimp Amendment 9. Two items were selected to be included for scoping: modifying the process for concurrent EEZ closures after cold weather events, and revising the pink shrimp MSST proxy. Comments were received on the potential items during scoping meetings in January and February 2012.

### **Actions in Amendment 9**

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



Pink shrimp (*Penaeus duorarum*). Image credit: Florida Dept of Agriculture (FL-Seafood.com)

# 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

### Background:

This action is being considered after South Carolina representatives expressed interest in developing an expedited process for a concurrent closure in which environmental criteria could be used and by which the state could directly request a closure from NOAA Fisheries Service. 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 (usually in March). 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.

Although it only takes a week or so to implement the closure after the Council approves the state's request, it is likely that the severe weather event has occurred weeks or even months earlier. This action would modify the process by considering different criteria for concurrent closure and expediting the steps between a state's request to NOAA Fisheries Service and implementing the closure.

## Part 1- use criteria based on environmental conditions in addition to or instead of shrimp abundance criteria.

Option 1: do not change criteria for requesting a concurrent closure.

Currently, a state requesting a closure has to provide information to the Shrimp Review Panel that demonstrates a reduction of 80 percent or greater of the over-wintering white shrimp abundance as reflected by catch-per-unit-effort (CPUE).

Option 2: use criteria based on changes in water temperature:

A state may request a concurrent closure upon providing information that demonstrates:

Temperature	Duration	Time Period	Shrimp	
			Abundance	
• 7°C or below	• over 1 week	• during the	• 80% reduction	
• 8°C or below	• over 2 weeks	months of	in CPUE	
• 9°C or below	• over 3 weeks	Dec, Jan, or	• others?	
	• over 4 weeks	Feb		
		• at any time		

Notes: periods of low shrimp abundance have temperatures range from about 7°C to 9.5°C. South Carolina considers 8°C to be the critical temperature for white shrimp.

<sup>\*</sup> a motion at the September meeting included a suggestion for criteria to be if water temperatures inshore remain at 8 degrees centigrade or below for over one week during the months of December, January or February.

## South Carolina Data on White Shrimp Abundance and Water Temperature

<b>Dec. 16, 2010 Location</b>	Number of White shrimp	Water temperature °C
Anchorage	58	<mark>8.4</mark>
Fort Johnson	671	<mark>8.4</mark>
Upper Ashley River	14	<mark>7.1</mark>
Lower Ashley River	478	<mark>7.5</mark>
Mean	305.3	<mark>7.9</mark>

Jan. 5, 2011 Location	Number of White shrimp	Water temperature °C	
Anchorage	0	<mark>8.7</mark>	
Rebellion Reach	0	<mark>8.6</mark>	
Fort Johnson	27	<mark>8.6</mark>	
Upper Ashley River	0	<mark>8.5</mark>	
Lower Ashley River	11*	<mark>8.6</mark>	
Mean	6.8	<mark>8.6</mark>	

<sup>\* +</sup> one segment from dead shrimp

<b>Jan. 19, 2011 Location</b>	Number of White shrimp	Water temperature °C	
Morris Island Slough	0	<mark>7.8</mark>	
Anchorage	0	<mark>7.5</mark>	
Fort Johnson	0 (+ 1 dead segment)	<mark>7.4</mark>	
Lower Ashley River	0	<mark>7.2</mark>	
Mean	0.0	<mark>7.5</mark>	

Feb. 14, 2011 Location	Number of White shrimp	Water temperature °C	
Anchorage	0	<mark>9.5</mark>	
Fort Johnson	0	<mark>9.5</mark>	
Upper Ashley River	0	<mark>9.6</mark>	
Lower Ashley River	0	<mark>9.6</mark>	
Mean	0.00	<mark>9.6</mark>	

GA DNR Trawl Survey Data for the same time period as above:

Sector	Month	Overall Count Size (1986-2011)	Count Size (heads on)
Creeks Sounds Beaches	Dec-10	45.50	38.62
	Jan-11	46.71	47.25
	Feb-11	50.79	40.54
Sounds	Dec-10	31.29	33.71
	Jan-11	38.73	40.85
	Feb-11	39.28	34.56
	Dec-10	26.16	36.86
Beaches	Jan-11	34.63	33.70
	Feb-11	29.21	25.35
Overall	Dec-10	37.80	35.60
	Jan-11	42.18	39.52
	Feb-11	43.85	37.16

GA surface water temperatures (°C) for the same time period:

Winter 2010-2011 Long-term (1976-2011)

MM-YY	mean	Lo95%CIs	Hi95%CI	mean	Lo95%CIs	Hi95%CI
Dec-10	13.04	11.90	14.18	14.92	14.76	15.08
Jan-11	8.91	<mark>8.56</mark>	<mark>9.26</mark>	11.12	10.95	11.29
Feb-11	11.10	10.83	11.38	11.62	11.46	11.78

Option 3: Others?

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#### Part 2- allow states to request closure directly from NOAA Fisheries Service

Option 1: Do not change the process for requesting a 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 by the Council. 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.

Option 2: The state requesting a concurrent closure would submit data to demonstrate that criteria have been met directly to NOAA Fisheries Service.

Sub-alternative a: upon review and recommendation by the Shrimp Review Panel, or Sub-alternative b: for review by NOAA Fisheries Service.

Option 3: u

Public comments on Action 1:

- One commenter supports the action to modify the protocol for concurrent closures because it protects the resource.
- One commenter does not support the action to modify the protocol for concurrent closures in the Florida EEZ, and does not feel the action should not be included in the amendment.

#### Shrimp AP (September 2011)

- The APs supported amending the FMP to allow the state to make a direct request to NOAA fisheries and eliminate council review of the request.
- -The council and AP should still be notified of the request so they can participate in any review at the federal level.
- The APs supported using environmental criteria, and one AP member noted that shrimp survey data is extremely important and should be reviewed in conjunction with environmental data.

COMMITTEE ACTION: Select options to be included as alternatives.

Note: The Shrimp AP will review Amendment 9 in April and the Council is scheduled to approve for public hearings at the June meeting. Public hearings are scheduled for August with final Council approval at the September or December meeting. It is important that the Council identify the range of alternatives as soon as possible; March would be best but June at the latest to meet this schedule.

# Action 2: Revise the minimum stock size threshold (MSST) proxy for pink shrimp

#### Background:

The Southeast Area Monitoring and Assessment Program (SEAMAP) survey is the proxy for pink shrimp. According to SEAMAP sampling data, the stock of South Atlantic pink shrimp has been below the threshold (0.461 shrimp/hectare) in recent years, which translates into an overfished status for pink shrimp. However, the Shrimp Review Panel reviewed information about pink shrimp and felt that other factors likely affect the pink shrimp stock other than fishing mortality, and no further management measures were necessary. Further, the SEAMAP survey does not have adequate data south of Cape Canaveral and north of Cape Hatteras. The Shrimp Review Panel has recommended that other surveys be considered in monitoring the pink shrimp MSST in addition to or in replacement of SEAMAP.

Option 1: 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.

Option 2: use another fishery-independent survey for the pink shrimp MSST proxy in addition to SEAMAP.

Sub-alternative a: Pamlico Sound Survey

Sub-alternative b: others?

Option 3: use another fishery-independent survey for the pink shrimp MSST proxy in place of SEAMAP.

Sub-alternative a: Pamlico Sound Survey

Sub-alternative b: others?

Option 4: add the Gulf pink shrimp MSST proxy in addition to SEAMAP.

Option 5: Others?

**Public Comments:** 

None

AP Comments (September 2011):

None

COMMITTEE ACTION: Select options to be included as alternatives.

Note: The Shrimp AP will review Amendment 9 in April and the Council is scheduled to approve for public hearings at the June meeting. Public hearings are scheduled for August with final Council approval at the September or December meeting. It is important that the Council identify the range of alternatives as soon as possible; March would be best but June at the latest to meet this schedule.