OVERVIEW

SSC, Golden Crab AP, and Wreckfish AP Information Gathering Workshop

June 7, 2009
Hutchinson Island Marriott
555 NE Ocean Boulevard
Stuart, FL

At this meeting, the SSC, Golden Crab AP, and Wreckfish AP will meet to share information about the golden crab and wreckfish fisheries. The purpose of this workshop is to provide fishermen the opportunity to share their on-the-water knowledge about stock levels given that the available stock assessment results are outdated. Since the wreckfish fishery is under ITQ (LAP) management and a golden crab LAP program will likely be considered by the Council in the next couple of years at the request of several of the golden crab fishermen, assignment of an ACL is of particular importance to the individual fishermen since it strongly impacts their annual catch expectations. The fishermen want to convey to the SSC, a general understanding of each of the fisheries as well as point out that these fisheries are underutilized and that therefore, recent landings do not reflect stock abundance. Instead, recent landings reflect technical, economic, and marketing constraints of each fishery.

The SSC will (A) receive a presentation from Council staff summarizing the biology and life history of golden crab; (B) receive a presentation from Council staff summarizing the golden crab data available for OFL/ABC determinations; (C) receive a presentation from Council staff and golden crab fishermen about the technical, economic, and marketing characteristics of the fishery; (D) have a discussion about the information received; (E) receive a presentation from Council staff summarizing the biology and life history of wreckfish; (F) receive a presentation from Council staff summarizing the wreckfish data available for OFL/ABC determinations; (G) receive a presentation from Council staff and wreckfish fishermen about the technical, economic, and marketing characteristics of the fishery; and (H) have a discussion about the information received.

Overview of Materials Included

This material includes all of the information we can provide to you about these two fisheries. There are reports and data for the wreckfish fishery that cannot be provided due to confidential data concerns. There have been only 2 wreckfish dealers since 2002 so annual landings data are confidential. If the SSC gains clearance to have confidential data, we will provide those reports and landings.

Attachment 1 – Golden Crab Fishery Overview

This document was prepared by Bill Whipple and Howard Rau, commercial golden crab fishermen and Advisory Panel members, and describes their views on the golden crab fishery. They talk about their reasons why landings are not a good indicator of stock size, why the golden

crab market has been underutilized; why the golden crab is not at risk of being overfished, other factors, and their interest in exploring a LAP program.

Attachment 2 – Golden Crab MSY & Literature Review by Sarah Hagedorn (2009)

Sarah Hagedorn, Environmental Defense Fund, has been helping gather information on golden crab. She researched previous amendments and developed notes on past golden crab literature and in particular MSY discussions from Golden Crab Amendment 3.

Attachment 3 – Golden Crab Assessment by Harper, Eyo, and Scott (2000)

This is the most recent assessment and was used in developing Golden Crab Amendment 3. These analyses represent a portion of the fishery.

Attachment 4 – Golden Crab Assessment by Harper & Scott (1998)

This was the first assessment and the analyses represent a portion of the fishery.

Attachment 5 – Golden Crab SAFE Report (2004)

This SAFE report, prepared by NMFS, updates the 1999 SAFE Report. Trends in the fishery are presented and the Harper et al. (2000) assessment is included as an appendix (Note: Some of the figures are hard to read and the version included as Attachment 3 is easier to view.).

Attachment 6 – Golden Crab SAFE Report (1999)

The original SAFE Report, prepared by SAFMC Staff, provides an extensive overview of data available. Copies of various reports are included as appendices. There are a number of economic papers included.

Attachment 7 – Golden Crab Amendment 3 (2000)

This amendment extended the use of wire cable for mainlines through 12/31/02; required that the escape panel or door on traps must measure at least 11 and 7/8 inches by 11 and 7/8 inches; removed the 5,000 pound harvest requirement for renewing the biannual permit and required permits be renewed on or before 6 months into the next fishing year; allowed up to a 20% increase in vessel size; created a sub-zone to address gear conflict; added vessels in the northern zone; specified MSY (the MSY range was rejected by NMFS), OY and status determination criteria; and modified the framework to allow modification to the sub-zone.

Attachment 8 – South Atlantic Golden Crab FMP (1995)

The FMP established the management program for golden crab. This was a result of working very closely with the industry to develop measures to protect the golden crab resource and fishery. Measures included establishing the management unit, OY, overfishing definition, trap definition, escape gap, no retention of females, allowable gear, escape panel, trap tending, gear identification, maximum trap size, depth limitations, possession of snapper grouper species for bait, vessel permit, dealer permit, vessel/fishermen reporting, dealer reporting, a framework for making changes, and a controlled access program.

Attachment 9 – Red Crab Emergency Rule (2009)

This action reduced the Total Allowable Catch (TAC) based on an assessment of the red crab stock. The following link provides information on the recent red crab and other data poor assessed species: http://www.nefsc.noaa.gov/nefsc/saw/
The information for red crab may provide some help in developing MSY, OFL, and ABC for golden crab.

Attachment 10 – Red Crab SAFE & 2005 Specifications (2004)

This document presents an overview of information on red crab and the management specifications for 2005.

Attachment 11 – Wreckfish ITQ Update

This document, prepared by Council staff, provides an update on the Wreckfish ITQ program.

Attachment 12 – Wreckfish Assessment - Vaughan, Manooch and Potts (2001)

This is the most recent assessment for wreckfish. Information from this assessment was used to generate the options for MSY, OFL, and ABC.

Attachment 13 – Wreckfish SAFE Report (1999)

The Wreckfish SAFE Report was prepared by Council staff and includes copies of important research and information on wreckfish. Socioeconomic evaluations of the ITQ program are also included.

Attachment 14 – Wreckfish Amendment 5 (1991)

Snapper Grouper Amendment 5 (Wreckfish ITQ) established the ITQ program (initial eligibility, use requirements, monitoring, oversight committee, etc.) and modified some of the other regulations (required 24 hour notice to off-load, required offloading between 8 a.m. and 5 p.m., and removed the 10,000 pound trip limit).

Attachment 15 – Wreckfish Amendment 3 (1990)

Snapper Grouper Amendment 5 (Wreckfish Management) added wreckfish to the management unit, defined OY, defined overfishing, required a permit, specified data collection, established a control date (3/28/90), established a fishing year beginning April 16, established a spawning season closure January 15-April 15, established TAC = 2 million pounds, established a procedure for modifying TAC to not exceed 8 million pounds, and established a 10,000 pound trip limit.

Golden Crab OFL/ABC Alternatives

The following alternatives were prepared by Gregg Waugh, SAFMC Staff, for discussion during the workshop. These alternatives are provided to stimulate discussion and to help in at least identifying a reasonable range of alternatives. Workshop participants should not in any way feel they are limited to these alternatives; we encourage and welcome any and all suggestions.

I. Maximum Sustainable Yield (MSY)

a. **Option 1. No action. There is no MSY specified for golden crab** and this is a requirement of the MSA. Amendment 3 proposed an MSY range of 4 to 12 million pounds but NMFS disapproved the estimate because the best scientific information available indicated that the range was too high.

b. **Option 2. MSY = 5 million pounds.** This figure is supported by the AP.

c. **Option 3. MSY = 2.5 million pounds.** This figure was suggested by NMFS in their rejection of the MSY proposed in Amendment 3 (letter from Joseph E. Powers to Fulton Love dated September 12, 2001): "The Southeast Fisheries Science Center in its January 12, 2001, memorandum noted that the results of the most recent stock status evaluation (Harper et al. 2000) indicates that the proposed MSY proxy (4-12-million pounds) appears to be several fold higher than indicated by analyses of historical landings. Specifically, the most recent fishery-based proxy of MSY for the southern and middle zones is on the order of 684,000 pounds per year. Information presented in Section 3.3 of Amendment 3 and in Table 2 summarizes MSY proxies for the northern zone. The estimates vary from 170,000 to 1,650,000 pounds. Adding the estimates for the three zones would provide a region-wide proxy of approximately 2.5-million pounds."

d. **Option 4. MSY = 400,000 – 600,000 pounds.** This figure is based on average landings from various years between 1995 and 2007.

e. **Option 5.** Others???

II. Overfishing Level (OFL)

a. **Option 1. No action.** The Maximum Fishing Mortality Threshold (MFMT) = the fishing mortality rate that produces maximum sustainable yield (F_{MSY}) (Golden Crab Amendment 3). The Minimum Stock Size Threshold (MSST) is defined as a ratio of current biomass ($B_{CURRENT}$) to biomass at MSY or (1-M)*B_{MSY}, where 1-M should never be less than 0.5 (Golden Crab Amendment 3). Golden crab would be overfished if current biomass was less than MSST and would be recovered when current biomass ($B_{CURRENT}$) was equal or greater than the biomass at MSY.

b. **Option 2. OFL = F_{MSY} = 0.7047** based on annual catch data (Harper, Eyo, and Scott, 2000; Table 6).

c. **Option 3. OFL = F_{MSY} = 0.2055** based on quarterly catch data (Harper, Eyo, and Scott, 2000; Table 5).

d. **Option 4.** Others??

III. Allowable Biological Catch (ABC)

a. **Option 1. No action. There is no ABC specified for golden crab.**

b. **Option 2.** ABC = 2 million pounds. This is 500,000 pounds less than MSY Alternative 3 (2.5 million pounds).

c. **Option 3.** ABC = 1.5 million pounds. This is 1,000,000 pounds less than MSY Alternative 3 (2.5 million pounds).

d. **Option 4.** Others??

Wreckfish MSY/OFL/ABC Alternatives

The following alternatives were prepared by Gregg Waugh, SAFMC Staff, for discussion during the workshop. These alternatives are provided to stimulate discussion and to help in at least identifying a reasonable range of alternatives. Workshop participants should not in any way feel they are limited to these alternatives; we encourage and welcome any and all suggestions.

I. Maximum Sustainable Yield (MSY)

e. **Option 1. No action. There is no MSY specified for wreckfish** and this is a requirement of the MSA. The Council has used maximum yield by yield-per-recruit analyses as the best available proxy for MSY. In the Comprehensive SFA Amendment (1998) the Council specified 30% Static SPR as the MSY proxy for wreckfish.

f. **Option 2. MSY = 1.946 million pounds.** This figure is the average landings from 1988-1994 which represent the years of high landings.

g. **Option 3. MSY = 0.835 million pounds.** This figure is the average landings from 1988-2007 which represent all years of landings with the exception of 2001 and 2003 when landings are confidential.

h. **Option 4.** Others???

II. Overfishing Level (OFL)

a. **Option 1. No action.** The Maximum Fishing Mortality Threshold (MFMT) = the fishing mortality rate that produces maximum sustainable yield (F_{MSY}) and $F_{30\%SPR}$ is the proxy for F_{MSY} (Comprehensive SFA Amendment, 1998). The Minimum Stock Size Threshold (MSST) is defined as a ratio of current biomass ($B_{CURRENT}$) to biomass at MSY or (1-M)*B_{MSY}, where 1-M should never be less than 0.5 (Comprehensive SFA Amendment, 1998). Wreckfish would be overfished if current biomass was less than MSST and would be recovered when current biomass ($B_{CURRENT}$) was equal or greater than the biomass at MSY.

b. **Option 2. OFL = F_{MSY} = $F_{30\%SPR}$ = 0.25** based on M = 0.10 and combined indices (Vaughan et al., 2001; Table 6).

c. **Option 3. OFL = F_{MSY} = $F_{40\%SPR}$ = 0.14** based on M = 0.10 and combined indices (Vaughan et al., 2001; Table 6).

d. **Option 4.** Others??

III. Allowable Biological Catch (ABC)

a. **Option 1. No action. There is no ABC specified for wreckfish.** The Total Allowable Catch (TAC) has been set at 2 million pounds since 1990 first through an emergency rule and then through Snapper Grouper Amendment 3 (1991).

b. **Option 2.** ABC = 1.75 million pounds. This is 197,000 pounds less than MSY Alternative 2 (1.946 million pounds).

c. **Option 3.** ABC = 1.5 million pounds. This is 447,000 pounds less than MSY Alternative 2 (1.946 million pounds).

d. **Option 4.** Others??