

**Black Sea Bass
Regulatory Amendment 4**

12/92

I. INTRODUCTION

A. History of Management

The Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region (SAFMC, 1983a) was prepared by the South Atlantic Fishery Management Council and implemented by the Secretary of Commerce on August 31, 1983 [48 Federal Register 39463]. The Fishery Management Plan was prepared to prevent growth overfishing in thirteen species in the snapper grouper complex and to establish a procedure for preventing overfishing in other species. The Fishery Management Plan established a 12" total length minimum size for red snapper, yellowtail snapper, red grouper and Nassau grouper; an 8" total length minimum size for black sea bass; and a four inch trawl mesh size to achieve a 12" minimum size for vermilion snapper. Additional harvest and gear limitations were also included in the original management plan.

Amendment 1 (SAFMC, 1988) was implemented by the Secretary effective January 12, 1989 [54 Federal Register 1720] to address the problems of habitat damage and growth overfishing in the trawl fishery. The amendment prohibits use of trawl gear to harvest fish in the directed snapper grouper fishery south of Cape Hatteras, North Carolina (35° 15' N Latitude) and north of Cape Canaveral, Florida (Vehicle Assembly Building, 28° 35.1' N Latitude). A vessel with trawl gear and more than 200 pounds of fish in the snapper grouper fishery (as listed in Section 646.2 of the regulations) on board was defined as a directed fishery. The amendment also established a rebuttable presumption that a vessel with fish in the snapper grouper fishery (as listed in Section 646.2 of the regulations) on board harvested its catch of such fish in the Exclusive Economic Zone (EEZ).

Amendment 2 (SAFMC, 1990a) prohibited the harvest or possession of jewfish in or from the exclusive economic zone in the South Atlantic due to its overfished status and defined overfishing for jewfish and other snapper grouper species according to the 602 guidelines requirement that definitions of overfishing be included for each fishery management plan. The harvest or possession of jewfish was prohibited by emergency rule. The amendment was approved on October 10, 1990 and final regulations were effective October 30, 1990 [55 Federal Register 46213].

Amendment 3 (SAFMC, 1990b) established a management program for the recently developed wreckfish fishery. The Council was concerned that the rapid increase in effort and catch threatens the wreckfish resource with overfishing and that the concentration of additional vessels in the relatively small area where the resource is located also could create problems with vessel safety because of overcrowding. Actions included: (1) adding wreckfish to the management unit; (2) defining optimum yield; (3) defining overfishing for wreckfish; (4) requiring an annual permit to fish for, land or sell wreckfish; (5) collecting data necessary for effective management; (6) establishing a control date of March 28, 1990 after which there would be no guarantee of inclusion

in a limited entry program should one be developed (this was later limited to the area bounded by 33° and 30° N Latitude based on input from public hearings); (7) establishing a fishing year beginning April 16; (8) establishing a process whereby annual total allowable catch (annual quotas) would be specified with the initial quota being 2 million pounds; (9) establishing a 10,000 pound trip limit; and (10) establishing a spawning season closure from January 15 through April 15. Actions (7), (9) and (10) were based on public testimony at meetings and hearings. An emergency rule effective August 3, 1990 [55 Federal Register 32257] added wreckfish to the management unit, established a fishing year for wreckfish commencing April 16, 1990, established a commercial quota of 2 million pounds and established a catch limit of 10,000 pounds per trip. The Secretary closed the fishery for wreckfish in the EEZ effective August 8, 1990 based on the TAC of 2 million pounds being reached [55 Federal Register 32635]. The Council requested an extension of the emergency rule which was approved [55 Federal Register 40181]. Amendment 3 was approved on November 9, 1990 and final regulations were effective January 31, 1991 [56 Federal Register 2443].

Amendment 4 (SAFMC, 1991a) was prepared to reduce fishing mortality on overfished species, to establish compatible regulations, where possible, between state and federal agencies, to identify the universe of fisherman and to gather the data necessary for management. Amendment 4 prohibited: (1) use of fish traps in the South Atlantic federal waters with the exception of sea bass traps when used north of Cape Canaveral, Florida; (2) use of entanglement nets, which includes gill and trammel nets; (3) use of longline gear inside 50 fathoms (300 feet) in the snapper and grouper fishery in South Atlantic federal waters; (4) use of bottom longlines for wreckfish; and (5) use of powerheads and bangsticks in all designated special management zones (SMZs) off the South Carolina coast. In addition, fishermen who fish for other species with gear prohibited in the snapper-grouper fishery may not have bycatches of snapper and grouper species in excess of the allowed bag limit. No bycatch would be allowed for those species that have no bag limit or that are prohibited. The amendment established the following minimum sizes: 8" total length for lane snapper and black sea bass; 10" total length for vermilion snapper (recreational fishery only); 12" total length for red porgy, vermilion snapper (commercial fishery only), gray, yellowtail, mutton, schoolmaster, queen, blackfin, cubera, dog, mahogany and silk snappers; 20" total length for red snapper, gag, and red, black, scamp, yellowfin and yellowmouth groupers; 28" fork length for greater amberjack (recreational fishery only); 36" fork length or 28" core length for greater amberjack (commercial fishery only); and no retention of Nassau grouper. Amendment 4 also required that all snappers and groupers possessed in South Atlantic federal waters must have head and fins intact through landing. Bag limits established under Amendment 4 for the recreational fishery were: a bag limit of 10 vermilion snapper per person per day; a bag limit of three greater amberjack per person per day; a snapper aggregate bag limit of 10 fish per person per day,

excluding vermilion snapper and allowing no more than two red snappers; and a grouper aggregate bag limit of five per person per day, excluding Nassau grouper and jewfish. Under the amendment, charter and head boats were allowed to have up to a two-day possession limit as long as there were two licensed operators on board and passengers had receipts for trips in excess of 12 hours. Excursion boats were allowed to have up to a three-day possession limit on multi-day trips. Fish harvested under the bag limit may be sold in conformance with state laws if they meet the commercial minimum sizes. The commercial harvest and/or landing of greater amberjack in excess of the three-fish bag limit was prohibited in April south of Cape Canaveral, Florida. The commercial harvest and/or landing of mutton snapper in excess of the snapper aggregate bag limit was prohibited during May and June. To exceed bag limits in the snapper-grouper fishery, an owner or operator of a vessel that fishes in South Atlantic federal waters was required to obtain an annual vessel permit. For individuals to qualify for a permit they must have had at least 50% of their earned income, or \$20,000 in gross sales, derived from commercial, charter, or headboat fishing. For a corporation to be eligible for a permit, the corporation or a shareholder or officer of the corporation or the vessel operator was required to have at least \$20,000 in gross sales derived from commercial fishing. For partnerships, the general partner or operator of the vessel was required to meet the same qualifications as a corporation. A permit, gear, and vessel and trap identifications were required to fish with sea bass traps. Amendment 4 also addressed enforcement concerns that surfaced with the wreckfish trip limit. Amendment 4 was approved on August 26, 1991 by the Secretary of Commerce and all regulations were effective on January 1, 1992 except the bottom longline prohibition for wreckfish which was implemented on October 25, 1991 [56 Federal Register 56016] .

Bottom longline gear was being used to a limited extent in the wreckfish fishery and input from fishermen indicated that the loss of gear, damage to habitat and lost gear continuing to fish was a problem. The Council subsequently requested and was granted emergency regulations [56 FR 18742] that prohibited the use of bottom longline gear in the wreckfish fishery effective April 19, 1991 and was granted an extension on July 19, 1991 [56 FR 33210].

A control date of July 30, 1991 for possible future limited entry was established for the entire snapper grouper fishery excluding wreckfish [56 FR 36052].

Amendment 5 (SAFMC, 1991b) established an Individual Transferable Quota (ITQ) management program for the wreckfish fishery. The Council submitted the amendment to the Secretary of Commerce on September 12, 1991. Amendment 5 was implemented with an effective date of April 6, 1992, except for those sections dealing with permits and fees, falsifying information, and percentage shares which became effective March 5, 1992 [57 Federal Register 7886]. The amendment included the following: (1) establish a limited entry program for the wreckfish sector of the snapper grouper fishery consisting of transferable percentage shares of the

annual total allowable catch (TAC) of wreckfish and individual transferable quotas (ITQs) based on a person's share of each TAC; (2) require dealer permits to receive wreckfish; (3) remove the 10,000-pound (4,536-kilogram) trip limit for wreckfish; (4) require that wreckfish be off-loaded from fishing vessels only between 8:00 a.m. and 5:00 p.m.; (5) reduce the occasions when 24-hour advance notice must be made to the NMFS Office of Law Enforcement to off-load wreckfish; and (6) specify the procedure for initial distribution of percentage shares of the wreckfish TAC.

The wreckfish fishery is currently under a 2 million pound TAC for fishing year 1992/93. Initial shares in the fishery were determined and shareholders notified. In the initial allocation there were 49 shareholders with an average of 2.041 shares per shareholder.

Implementation of Amendment 4 resulted in unanticipated impacts on black sea bass fishermen. Prohibiting multi-gear trips (sea bass pots, bandit gear and bottom longline gear outside 50 fathoms) and retention of other species resulted in significant economic losses to black sea bass fishermen and related support industries. The Council requested and was granted emergency regulations [57 FR 39365] that established a definition of "sea bass pot" applicable in the EEZ off North and South Carolina and removed the possession limits for snapper grouper applicable to fishermen using sea bass pots aboard commercially permitted vessels in the EEZ of North and South Carolina. The effective dates were August 31 through November 30, 1992. The Council subsequently requested an extension of the emergency interim rule which was granted effective December 1, 1992 and continues through February 28, 1993 [57 FR 56522].

B. FMP Problems

Problems identified in the Snapper Grouper Fishery Management Plan, as modified by Amendment 4 (SAFMC, 1991a), are:

1. Excessive fishing mortality is jeopardizing the biological integrity of the snapper grouper resource of the South Atlantic. First, thirteen species in the complex are in a documented state of overfishing, i.e., spawning stock ratio (SSR) is less than 30%. This group consists of black sea bass, gray snapper, vermilion snapper, red snapper, red porgy, gray triggerfish, gag, scamp, red grouper, speckled hind, snowy grouper, warsaw grouper, and greater amberjack. Second, fourteen species are thought to be overfished even though the SSRs are unknown. This group consists of golden tilefish, yellowedge grouper, misty grouper, Nassau grouper, black grouper, yellowmouth grouper, yellowfin grouper, schoolmaster snapper, queen snapper, blackfin snapper, cubera snapper, dog snapper, mahogany snapper and silk snapper. Third, the jewfish resource is thought to be severely overfished throughout the Gulf of Mexico and South Atlantic even though the SSR is unknown. Fourth, the rapid increase in number of vessels, effort, and catch in the newly developed wreckfish fishery threatens the wreckfish resource with overfishing even though the SSR is unknown. Fifth, additional species may be overfished or likely to experience overfishing in the near future.

2. Adequate management has been hindered by lack of current and accurate biological, statistical, social, and economic information. Data necessary to document growth and/or recruitment overfishing, and to calculate SSRs are very limited. Since the universe of participants is unknown, scientists are unable to estimate catch, effort, and other important information with

desired accuracy. The present system of fishery dependent and fishery independent data collection provides limited information for assessment purposes and practically no economic or social data.

3. Intense competition exists among recreational, part-time, and full-time commercial users of the snapper grouper resources; and between commercial users employing different gears (hook and line, traps, entanglement nets, longlines, and powerheads/bang sticks).

4. Habitat degradation caused by some types of fishing gear and poor water quality have adversely affected fish stocks and associated habitat.

5. The existence of inconsistent State and Federal regulations makes it difficult to coordinate, implement and enforce management measures and may lead to overfishing. Inconsistent management measures create public confusion and hinders voluntary compliance.

The following problems were added in Amendment 5 (SAFMC, 1991b):

1. **Excess Capacity:** The size and capacity of the wreckfish fleet exceeds that needed for present TAC as well as the range of TACs the Council is likely to approve in the foreseeable future. Additional vessels in the future would exacerbate this situation since the derby nature of an open access fishery encourages fishermen to add harvest capacity even when gains in production are marginal or when economies of scale are not necessarily realized.

2. **Inefficiency:** Past and present measures to control harvest (TAC, gear restrictions, trip limits) and future measures that would likely be needed under continued open access, increase fishing costs and decrease potential consumer and producer benefits from the fishery.

3. **Low Conservation and Compliance Incentives:** Under open access, incentives to promote conservation and voluntary compliance with regulations are low because the benefits from doing so may be appropriated by other fishermen or new entrants.

4. **Potential Conflicts:** Competitive fishing conditions may eventually lead to gear and area conflicts as a large number of vessels compete for available TAC.

5. **High Regulatory Costs:** Management and enforcement costs are unnecessarily high and are expected to increase under open access as the number of vessels increases and stricter management measures are needed to control excess fishing effort.

6. **Low Marketing Incentives:** Efforts by fish dealers to augment consumer acceptance of wreckfish have been thwarted by short-run oversupply and lack of product continuity. The likelihood of additional harvest restrictions under open access increases uncertainty and instability and discourages long-run planning and investment by dealers.

C. **Problems Requiring Framework Action**

The Council is concerned existing regulations (after the emergency rule lapses) will have serious economic impacts on black sea bass fishermen and related support industries. Implementing regulations for Amendment 4 prohibited fish traps but allowed sea bass pots north of Cape Canaveral, Florida. A sea bass pot was defined as a trap, other than a crustacean trap, that contains at any time no more than 25 percent, by number, of fish in the snapper grouper fishery other than bank, rock and black sea bass. Further, when using sea bass pots, fishermen are limited to the bag limit for species other than black, bank and rock sea bass, and for species with no bag limit, no retention is allowed. These regulations prevent multi-gear trips where fishermen fish sea bass pots during the day and bandit gear at night, and trips where sea bass pots are deployed and bandit gear fished while the pots are soaking. Economic losses are also incurred from having to discard the catch of other species (e.g., porgies and grunts) while pot fishing.

Prohibiting multi-gear trips (sea bass pots, bandit gear and bottom longline gear outside 50 fathoms) and retention of other species has resulted in significant unintended economic loss to the fishermen. The Council was unaware of the magnitude of multi-gear trip activity and the level of associated impacts during deliberations on Amendment 4 because this information did not surface during Amendment 4 public hearings. Testimony at recent public hearings on the sea bass pot issue and before the Council at its February and June 1992 meetings (SAFMC, 1992) indicates that fishermen were unaware of how the Amendment 4 provisions would affect them until after the regulations were implemented. This testimony, as well as written comments, support implementation of the measures proposed in this framework action.

D. FMP Objectives

The management objectives of the Snapper Grouper Fishery Management Plan as modified by Amendment 4 (SAFMC, 1991a) are:

1. Prevent overfishing in all species by maintaining the spawning stock ratio (SSR) at or above target levels.
2. Collect necessary data to develop, monitor, and assess biological, economic, and social impacts of management measures designed to prevent overfishing, obtain desired SSR levels, and address the other stated problems.
3. Promote orderly utilization of the resource.
4. Provide for a flexible management system that minimizes regulatory delays while retaining substantial Council and public involvement in management decisions, and rapidly adapts to changes in resource abundance, new scientific information, and changes in fishing patterns among user groups.
5. Minimize habitat damage due to direct and indirect effects of recreational and commercial fishing activities.
6. Promote public comprehension of, voluntary compliance with, and enforcement of the management measures.

The following limited entry objectives were added in Amendment 5 (SAFMC, 1991b):

1. Develop a mechanism to vest fishermen in the wreckfish fishery and create incentives for conservation and regulatory compliance whereby fishermen can realize potential long-run benefits from efforts to conserve and manage the wreckfish resource.
2. Provide a management regime which promotes stability and facilitates long-range planning and investment by harvesters and fish dealers while avoiding, where possible, the necessity for more stringent management measures and increasing management costs over time.
3. Develop a mechanism that allows the marketplace to drive harvest strategies and product forms in order to maintain product continuity and increase total producer and consumer benefits from the fishery.
4. Promote management regimes that minimize gear and area conflicts among fishermen.
5. Minimize the tendency for over-capitalization in the harvesting and processing/distribution sectors.
6. Provide a reasonable opportunity for fishermen to make adequate returns from commercial fishing by controlling entry so that returns are not regularly dissipated by open access, while also providing avenues for fishermen not initially included in the limited entry program to enter the program.

Although not an explicit objective at this time, the Council believes that portions or all of management and administrative costs should be recovered from those who hold individual quota shares in the wreckfish fishery, should recovery of those costs become permissible under future Magnuson Act (MFCMA) revisions. Those costs, or portions of them, would be recovered through such means as transfer fees or ad valorem taxes or other means available.

E. Optimum Yield (SAFMC, 1990b)

Optimum yield (OY) is any harvest level for a species which maintains, or is expected to maintain, over time, a survival rate of biomass into the stock of spawning age fish to achieve at least a 30% spawning stock biomass per recruit (SSBR) population level, relative to the SSBR that would occur with no fishing.

F. Definition of Overfishing (SAFMC, 1990b)

Overfishing for all species other than jewfish is defined as follows:

1. A snapper grouper stock or stock complex is overfished when it is below the level of 30% of the spawning stock biomass per recruit which would occur in the absence of fishing.
2. When a snapper grouper stock or stock complex is overfished, overfishing is defined as harvesting at a rate that is not consistent with a program that has been established to rebuild the stock or stock complex to the 30% spawning stock biomass per recruit level.
3. When a snapper grouper stock or stock complex is not overfished, overfishing is defined as a harvesting rate that, if continued, would lead to a state of the stock or stock complex that would not at least allow a harvest of OY on a continuing basis.

G. Framework Procedure as Specified in Amendment 4 (SAFMC, 1991a)

Establish an assessment group and annual adjustments:

1. The Council will appoint an assessment group (Group) that will assess the condition of selected snapper grouper species in the management unit (including economic and sociological assessments as needed) on an annually planned basis. The Group will present a report of its assessment and recommendations to the Council.
2. The Council will consider the report and recommendations of the Group and hold public hearings at a time and place of the Council's choosing to discuss the Group's report. The Council may convene the Advisory Panel and the Scientific and Statistical Committee to provide advice prior to taking final action. After receiving public input, the Council will make findings on the need for changes.
3. If changes are needed in the maximum sustainable yield (MSY), total allowable catch (TAC), quotas, trip limits, bag limits, minimum sizes, gear restrictions, season/area closures (including spawning closures), timeframe for recovery of overfished species or fishing year, the Council will advise the Regional Director in writing of their recommendations accompanied by the Group's report, relevant background material, draft regulations, Regulatory Impact Review and public comments. This report will be submitted each year at least 60 days prior to the start of the fishing season (currently April 16).

4. The Regional Director will review the Council's recommendations, supporting rationale, public comments and other relevant information. If the Regional Director concurs that the Council's recommendations are consistent with the goals and objectives of the fishery management plan, the national standards and other applicable law, the Regional Director will recommend that the Secretary publish proposed and final rules in the Federal Register of any changes prior to the appropriate fishing season (currently April 16).

5. Should the Regional Director reject the recommendations, he will provide written reasons to the Council for the rejection, and existing regulations will remain in effect until the issue is resolved.

6. Appropriate adjustments that may be implemented by the Secretary by proposed and final rules in the Federal Register are:

- a. Initial specification of MSY and subsequent adjustment of the best estimate of MSY where this information is available for a particular species.
- b. Initial specification of acceptable biological catch (ABC) and subsequent adjustment of the ABC range and/or best estimate when and where this information is available for a particular species.
- c. Setting TAC for a particular species. A TAC for wreckfish may not exceed 8 million pounds.
- d. Modifying (or implementing for a particular species) TAC, quotas (including zero quotas), trip limits, bag limits (including zero bag limits), minimum sizes, gear restrictions (ranging from modifying current regulations to a complete prohibition) and season/area closures (including spawning closures).
- e. The fishing year and spawning closure for wreckfish may not be adjusted by more than one month.

Discussion

The procedure described above will allow for regular stock assessments and provide for timely adjustments to the management program to prevent overfishing and/or rebuild a stock if overfished. It is the Council's intent that all species in the management unit receive periodic assessments. Council staff and the assessment group will select species to be assessed and include those in the annual NMFS/Council planning process (called Operations Plans).

It is the Council's intent that TAC be limited by the upper end of an acceptable biological catch (ABC) range when and if one is provided; however, no limits should be placed on the lower limit of TAC so that a zero TAC could be specified if deemed necessary to protect the resource.

II. DESCRIPTION OF FISHERY AND UTILIZATION PATTERNS

The Fishery Management Plan (SAFMC, 1983a), the original Source Document (SAFMC, 1983b) and the updated Source Document (SAFMC, in prep.) contain additional information on the fishery and utilization patterns. Table 1 lists species in the management unit according to existing knowledge about their spawning stock ratios.

A. Commercial Fishery

In general, total landings, mean size of fish captured, and nominal catch per trip in the commercial fishery have declined substantially. Also, the commercial sector has shifted offshore and changed target species as traditional species became less abundant. In addition, the commercial fishery developed with relatively inefficient hook-and-line gear and then switched to

more efficient longline and trap gear in order to catch enough fish to operate profitably. Combined spawning stock ratios (SSRs) indicate that 12 of 19 species have SSR values of less than 0.30, indicating they are overfished; five species have values between 0.30 and 0.51; and two have SSR values between 0.58 and 0.61 (Table 1). The SSR values for greater amberjack (0.51), yellowtail snapper (0.19) and mutton snapper (0.51) are suspect because of the unusual distribution of samples sizes, problems with age and growth data, and conflict with direct observations from fishermen. Table 2 also shows that the SSRs for a number of species in the commercial sector are above target levels. This is due to the fact that many snapper grouper species stratify by depth, that is to say larger fish are found offshore. Because the commercial fishery mainly operates in deeper waters it catches primarily larger fish, and population parameters or SSRs derived from that data subset will be larger. The resource-wide value (commercial and recreational) across all areas resembles weighted averages of all harvests.

Commercial landings and value for 1978 through 1990 are shown in Tables A1 and A2 in Appendix 1.

B. Recreational Fishery

Total catches and catch rates, especially for the east coast of Florida, for traditional snapper grouper species caught recreationally, such as red snapper, vermilion snapper and several of the groupers, have declined substantially during the 1980s. In Florida, the declines may have taken place as early as the 1960s, however, data are not available for that period. The average size of vermilion snappers, black sea bass and groupers are quite small in recreational catches. Part of the reason for the small average size of recreational fish is due to the habit of some species stratifying in size by depth. Another important factor is that total inshore fishing pressure is so high that fish are not allowed to grow to optimal size before capture. As soon as fish reach legal size they are caught, indicating growth overfishing. SSRs derived from recreational catches of black sea bass, vermilion snapper, red porgy, red snapper, gag, scamp, red grouper, greater amberjack, snowy and speckled hind show that these species are overfished (Table 2) and require management.

Recreational catches are shown in Table A3 in Appendix 1.

C. Status of the Stocks

Table 2 lists SSRs, where estimates are available, for key species in the management unit. (See discussion under "C. Problems Requiring Framework Action" for more information on status of the stocks.) An examination of Table 2 shows that many highly prized species in the snapper grouper complex are overfished as indicated by their SSRs. Examples include red snapper, vermilion snapper, red porgy, black sea bass and Florida and several groupers. It is also evident that species off Florida are under more fishing pressure than those further north. This coincides with development of the fishery which originated in Florida and expanded northward, particularly

in the 1970s. Similarly, the fishery moved offshore during the 1970s and 1980s with tilefish and deep water snappers and groupers being subjected to increased fishing pressure.

Presently, 12 species (described earlier) are in a documented state of overfishing. Fifteen other species are thought to be overfished. Recreational fishing pressure will likely continue to increase as the coastal population continues to grow in the South Atlantic.

The virtual absence of larger fish in the near shore waters of the management unit as well as the shifting of target species by both recreational and commercial sectors are other indicators that many, especially the highly prized, traditional species (red snapper, gag, scamp, red porgy, etc.) are under intense fishing pressure and require management.

III. MANAGEMENT MEASURES

A. Introduction

The items being addressed in this framework action are those the Council considered in requesting emergency action. The Council has held informal meetings with fishermen, public hearings and received testimony from affected fishermen at both committee and Council meetings. A complete compilation of letters, public testimony and committee/Council minutes through June 1992 was compiled by Council staff (SAFMC, 1992).

During deliberations that resulted in the Council's request for emergency action, a limitation on throat size in sea bass pots was considered and rejected. The Council did not consider a throat size restriction for inclusion in the framework action but the impacts are described in the RIR to further describe the economic conditions black sea bass fishermen face and to document all options considered by the Council during development of their final action.

B. Action 1. Define Sea Bass Pots, Allow Multi-Gear Trips and Allow Retention of Incidentally Caught Fish

The new definition of a sea bass pot is a trap limited to a six-sided rectangular shape with no dimensions exceeding 25 inches (other than the diagonal). This would exclude traps that use flexible mesh or webbing to increase the effective size of the trap. It is the Council's intent that sea bass pots not be fished in multiple configurations (i.e., attaching individual traps together resulting in a trap exceeding the dimensions specified. This does not preclude connecting individual traps together in a trot line. This is the Council's original emergency request to modify the definition of sea bass pots, allow multi-gear trips, allow retention of incidentally caught fish and have this apply to the sea bass fishery north of Cape Canaveral, Florida. The existing definition of sea bass trap would be eliminated. No sea bass pots are to exceed 25 inches in any dimension other than the diagonal. With this definition, the Council is proposing to drop any additional requirements on bycatch and allow use of multiple gears on the same trip. This would allow retention of all fish

that meet minimum sizes that are harvested with a sea bass pot or from a trip on which sea bass pots were used.

Discussion

The Council is concerned existing regulations (after the emergency rule lapses) will have relatively serious economic impacts on black sea bass fishermen and related support industries. Implementing regulations for Amendment 4 prohibited fish traps but allowed sea bass pots north of Cape Canaveral, Florida. A sea bass pot was defined as a trap, other than a crustacean trap, that contains at any time no more than 25 percent, by number, of fish in the snapper grouper fishery other than bank, rock and black sea bass. Further, when using sea bass pots, fishermen were limited to the bag limit for species other than black, bank and rock sea bass, and for species with no bag limit, no retention is allowed. These regulations prevented multi-gear trips where fishermen fished sea bass pots during the day and bandit gear at night, and trips where sea bass pots were deployed and bandit gear fished while the pots were soaking. Economic losses were also incurred from having to discard the catch of other species (e.g., porgies and grunts) while pot fishing.

Prohibiting multi-gear trips (sea bass pots, bandit gear and bottom longline gear outside 50 fathoms) and retention of other species resulted in significant, unintended economic loss to the fishermen. The Council was unaware of the magnitude of multi-gear trip activity and the level of associated impacts during deliberations on Amendment 4 because this information did not surface during Amendment 4 public hearings. Testimony at recent public hearings on the sea bass pot issue and before the Council at its February and June meetings (SAFMC, 1992) indicated that fishermen were unaware of how the Amendment 4 provisions would affect them until after the regulations were implemented. This testimony, as well as written comments, support implementation of the measures proposed in this framework action.

There are 256 snapper grouper fishermen who hold permit endorsements for the use of sea bass pots in the south Atlantic. All these fishermen would be affected by the current pot regulations to some degree (after the emergency rule lapses) because they would be prohibited from retaining their incidental catches of snapper grouper complex species for which there are no bag limits. The greatest economic impacts of the current pot regulations, however, are on the fishing firms that would be making multi-gear trips involving sea bass pots and other legal gear, if that practice was still allowed. According to recent information from industry representatives and state fishery officials, approximately one-fourth to one-third of sea bass pot fishermen are known to make multi-gear trips involving sea bass pots. This means that roughly 60 to 75 fishing firms would be impacted directly and significantly by the present regulations, and this number would be greater in years when fisheries in state waters are at low levels of abundance and there is a greater reliance on the snapper grouper fishery.

Because recent cost and earnings data for the snapper grouper fishery are not available, exact dollar values of the annual direct and indirect economic impacts from the current sea bass pot regulations on affected pot fishermen and related service industries are virtually impossible to generate. What can be stated definitively, however, is the pot fishery for black sea bass is a relatively important component of the snapper grouper fishery in North and South Carolina. For instance, the replacement value of the 6,941 sea bass pots currently in use is approximately \$105,000, not accounting for depreciation. Sea bass potters purchase bait for their pots, ice and fuel for their vessels, pay fees to fish houses for unloading and packing, and pay shippers to send their large and jumbo black sea bass to markets in New York and cities in New England and Canada where fishermen receive as much as \$3.50 to \$5.00 per pound for this important fish product. This is an example of the links pot fishermen have to the economies of the states in which they work.

In terms of the direct economic importance of the sea bass pot fishery, black sea bass captured in pots were worth roughly \$418,000 in North Carolina and \$151,000 in South Carolina in 1988, the most recent year for which NMFS general canvass data are finalized. Testimony from fishermen indicate more recent years have produced higher revenues. The stated annual gross revenues may not appear to be of great proportion in absolute terms, but they are of great relative importance to the comparatively small-scale traditional commercial fisheries in the southeast.

For those 60 to 75 or more fishing firms that make multi-gear trips, black sea bass revenue is an integral part of trip revenue that helps to determine whether the trip will be a success in terms of covering fixed and variable costs as well as paying crew share while providing some return to the owner. The Amendment 4 sea bass pot regulations effectively eliminate the productivity gained from multiple gear trips. They force fishermen who have vessels designed for multi-gear trips to choose between either hook and line gears or sea bass pots, precluding use of both gears on the same trip. This not only forfeits the benefits to those fishermen, but it diminishes the benefits to society in terms of making the best use of scarce capital and providing seafood at the best possible price. For vessels that were designed to take advantage of multiple fisheries and multi-gear opportunities (which traditionally includes larger scale boats in the southeast), prohibiting multi-gear trips reduces trip revenues that were anticipated in the planning and decision making of the fishing firms. This may result in some of these vessels and their crews having to stop fishing or switching to more stressed fisheries (e.g, shark, deep water groupers and tilefish).

In addition, fishermen report there are advantages to multi-gear trips in terms of increasing the likelihood of recouping trip costs because if snapper and grouper fishing with hook and line gear is not productive, there is still a chance that sea bass potting will be successful. Diversifying risk is certainly a crucial aspect of the economic survival of fishermen today, and it is especially true for black sea bass fishermen in the southeast. Further, industry representatives providing

testimony during development of the proposed sea bass pot measures indicated that the relative economic importance of the sea bass pot catch while fishing other gears for snappers and groupers has increased with the new snapper grouper size limits and other restrictions promulgated under Amendment 4. Therefore considerable economic consequences on commercial fishermen of the newly imposed restrictions in Amendment 4 would be mitigated by attempting to increase the productivity of trips in other ways, particularly for a species such as black sea bass where the biological status is relatively good.

To clear up some confusion over mesh sizes, minimum sizes for mesh are specified as follows: hexagonal mesh ("chicken wire") must be at least one and one-half inches between the wrapped, parallel sides; square mesh must be at least one and one-half inches between sides; and rectangular mesh must be at least one inch between the longer sides and two inches between the shorter sides. Pot throat dimensions remain unspecified.

With this definition of sea bass pots, there would be no additional requirements on bycatch (other than minimum size) and the use of multiple gears on the same trip would be allowed. This would allow retention of all fish harvested with sea bass pots that meet the minimum sizes and from trips where sea bass pots and/or other legal gear were used.

These actions are not inconsistent with Amendment 4 wherein fish traps were prohibited. The Council approved prohibiting fish traps in the entire EEZ but made their intent clear that the traditional sea bass pot fishery occurring north of Cape Canaveral, Florida would be allowed to continue. The definition of sea bass pots and other provisions contained in this framework action reiterate that intent. Sea bass pots are much smaller than fish traps, target mainly black sea bass with some incidental catch of porgies and grunts, do not have the rates of trap loss and incidence of ghost fishing as occurred with fish traps, do not result in gear and/or user group conflict, and are fished in generally shallow enough water that survival of released fish is high. Continued use of sea bass pots does not threaten the rebuilding of overfished snapper and grouper species due to the extremely low incidence of catches of snappers and groupers. Sea bass pot catches of other species in the snapper grouper complex that are considered overfished (e.g., red porgy) are subject to the same regulations that have been implemented to rebuild these resources as all other legal gear. The Council is addressing additional harvest restrictions for several species based on the 1992 stock assessment that may further restrict both recreational and commercial fishermen in the future.

The Council has determined these changes are in the best interest of the black sea bass fishery as well as society at large. Further, the significant negative impacts outlined justify taking action to implement these changes prior to expiration of emergency regulations early in the 1993 fishing year.

C. **Rejected Options for Action 1**

Rejected Option 1. Request implementation of the Council's original emergency request to modify the definition of sea bass pots, allow mutli-gear trips, allow retention of incidentally caught fish and have this apply to the black sea bass fishery north of Florida. The existing definition of fish trap would be replaced with the definition for sea bass pot.

Discussion

Catches off northeastern Florida are limited and this option would conform to the proposal being explored by the Florida Marine Fisheries Commission to prohibit sea bass traps statewide. The Council rejected this option because they wanted to allow the entire black sea bass fishery to operate under the same regulations. If the Florida Marine Fisheries Commission prohibits sea bass traps statewide, the Council will consider taking similar action so that regulations are compatible in state and federal waters.

Rejected Option 2. Request implementation of the Secretary's emergency action which modified the definition of sea bass pots, allowed multi-gear trips, allowed retention of incidentally caught fish ONLY off North and South Carolina. The existing definition of fish trap would be retained north of Cape Canaveral, Florida.

Discussion

This option would continue the measures established under the emergency rule. However, having both a sea bass and fish pot definition results in duplication of regulations and causes difficulties with law enforcement. This option would prevent black sea bass fishermen in Georgia and northeastern Florida from retaining the incidental catch and making multiple gear trips.

The Council rejected this option for these reasons and because they wanted to allow the entire black sea bass fishery to operate under the same regulations. This will allow the fishery to continue and even expand off Georgia and northeastern Florida. This option was also rejected because it goes against prior Council intent in Amendment 4 to allow use of traditional sea bass pots north of Cape Canaveral. The new definition is a refinement of the definition of a traditional sea bass trap included in Amendment 4.

IV. **REGULATORY IMPACT REVIEW AND INITIAL REGULATORY FLEXIBILITY DETERMINATION**

A. **Introduction**

The Regulatory Impact Review (RIR) is part of the process of developing and reviewing fishery management plans and amendments and is prepared by the Regional Fishery Management Councils with assistance from the National Marine Fisheries Service, as necessary. The RIR provides a comprehensive review of the level and incidence of economic impact associated with

the proposed regulatory actions. The purpose of the analysis is to ensure that the regulatory agency or Council systematically considers all available alternatives so that public welfare can be enhanced in the most efficient and cost effective way.

The RIR also serves as the basis for determining if the proposed regulations are major under Executive Order 12291. If the proposed regulations are deemed to have a significant impact on a substantial number of small entities, then an Initial Regulatory Flexibility Analysis (IRFA) must be prepared and incorporated into a joint document that meets the requirements of the Regulatory Flexibility Act (RFA). The purpose of the Regulatory Flexibility Act is to relieve small businesses, small organizations, and small governmental entities from burdensome regulations and record-keeping requirements, to the extent possible. In as much as Executive Order 12291 encompasses the RFA requirements, the RIR usually meets the requirements of both.

B. Action 1. Define Sea Bass Pots, Allow Multi-Gear Trips and Allow Retention of Incidentally Caught Fish

The new definition of a sea bass pot is a trap limited to a six-sided rectangular shape with no dimensions exceeding 25 inches (other than the diagonal). This would exclude traps that use flexible mesh or webbing to increase the effective size of the trap. It is the Council's intent that sea bass pots not be fished in multiple configurations (i.e., attaching individual traps together resulting in a trap exceeding the dimensions specified. This does not preclude connecting individual traps together in a trot line. This is the Council's original emergency request to modify the definition of sea bass pots, allow multi-gear trips, allow retention of incidentally caught fish and have this apply to the sea bass fishery north of Cape Canaveral, Florida. The existing definition of sea bass trap would be eliminated. No sea bass pots are to exceed 25 inches in any dimension other than the diagonal. With this definition, the Council is proposing to drop any additional requirements on bycatch and allow use of multiple gears on the same trip. This would allow retention of all fish that meet minimum sizes that are harvested with a sea bass pot or from a trip on which sea bass pots were used.

Discussion

There are two areas of economic impact to consider regarding proposed modifications to the definition of a sea bass pot as compared to the present definition. They are: 1) providing for multi-gear trips for black sea bass and other Snapper Grouper species and 2) the impacts of the trap dimension definition in terms of requiring modification of the pot gear presently in use. These areas of impact will be discussed separately for reasons of clarity.

C. Multi-Gear Snapper Grouper Trips that Involve Potting Black Sea Bass

Snapper grouper fishermen fishing hydraulic reels (bandits), handlines, and bottom longlines to some degree, report that they frequently fish for black sea bass with pots and fish

hydraulic reels or other gears for snappers and groupers during the same trip. The impetus for setting sea bass pots while fishing hook and line gear for snappers and groupers is that black sea bass fetch high prices at certain times of the year and hence are an important revenue source. For example, jumbo (2.5 lb and up) black sea bass can be worth as much as \$3.50 to \$5.00 per pound to the vessel at certain times of the year. In addition, pots are apparently effective for black sea bass when fished with bait independent of the vessel for short periods of time, thus allowing fishermen to fish for other species in the snapper/ grouper complex at the same time. Productivity for a given trip can be increased in this way because better use is made of fixed and variable cost inputs such as vessel and fuel.

With the sea bass pot definition developed in Amendment 4, multi-gear trips involving sea bass pots and other gears to catch other snapper grouper species are limited to the recreational bag limit for species where bag limits have been set and no possession for species without bag limits. This eliminates the productivity of multiple gear trips because bag limit quantities and no harvest where a bag limit is not in place do not cover the variable costs of bandit or other gear fishing for snappers and groupers. In this way, fishermen are forced to choose between either hydraulic reels or sea bass pots for a given trip instead of both gears at the same time, and efficiency gains from multiple gear trips are lost. In addition, fishermen report that there are advantages to having more than one gear on board in terms of increasing the likelihood that enough fish will be caught to cover trip costs because if one mode of fishing is not productive, there is a chance that the other mode will. Risk reduction advantages from diversification would be lost if the present definition of a sea bass pot is not modified to allow multiple gear trips.

Black sea bass captured with sea bass pots is a relatively important source of revenue for some snapper grouper fishermen in the states of North and South Carolina. As of July 23, 1992, there were 256 permits issued to use sea bass pots in the EEZ of the south Atlantic. Of these, 31 fishermen fish out of ports in Florida, one in Georgia, 63 in South Carolina, and 152 in North Carolina. Nine permittees hail from states outside of the region and the south Atlantic state where they operate is not known. NMFS General canvass data for 1987 and 1988 (the last two years for which data are finalized) show that total pot catch of black sea bass in the south Atlantic averaged 465,000 pounds worth approximately \$600,000. North Carolina accounted for 65% of the catch, South Carolina 35%, and Florida and Georgia catches combined were approximately 1,000 pounds. In 1991, catches of sea bass for North Carolina and South Carolina were 500,000 pounds and 238,815 pounds respectively with a combined approximate value of \$1.2 million although these figures are not final yet. This works out to a rough average of \$5,250 and \$6,000 of annual revenue from black sea bass caught in traps per permit holder in North and South Carolina respectively. In reality, revenues per active permittee are probably higher because some snapper grouper fishermen may have obtained a sea bass pot permit intending to fish in the future or with

the expectation that limited entry will be developed some day. In any case, given the relatively small scale of snapper grouper commercial fishing in the south Atlantic, this annual revenue is of considerable importance.

The degree to which multiple gear trips involving potting black sea bass were made prior to the sea bass pot definition promulgated in Amendment 4 is difficult to determine. Evidence from public hearings suggests that multi-gear trips are common in the Carolinas and also suggests that multiple gear trips have become increasingly common in recent years. Trip Interview Program (TIP) data for trips in North Carolina that landed black sea bass 1989-1991, however, do not indicate that potting black sea bass and fishing other gears on the same trip is widespread. According to information from the North Carolina Division of Marine Fisheries, the lack of evidence of multi-gear trips involving potting for black sea bass in TIP data results from the sampling protocol being employed in North Carolina, and possibly that multi-gear trips have only recently become more widely practiced. The bulk of observations on black sea bass that were examined from the TIP file were for years prior to 1990. In addition, docks where multi-gear black sea bass trips are frequently undertaken may not be docks where black sea bass are sampled by the TIP program (Fritz Rhode, NC. Division of Marine Fisheries; personal communication).

According to a spokesman for the Southeastern North Carolina Watermen's Association, there are somewhere between 30 and 45 permitted vessels which make multi-gear snapper grouper trips involving sea bass pots in North Carolina, and this number increases in years where fisheries other than the snapper grouper fishery are not profitable because of low abundance or poor weather conditions (Melvin Shepard, Jr., President, Southeastern North Carolina Watermen's Association; personal communication). These fishermen apparently fish out of the Sneads Ferry area of North Carolina with a smaller group fishing out of Cape Hatteras, North Carolina.

Fish house owners in South Carolina who were queried on the extent that sea bass potters use pots in combination with other gears indicated that the practice was important to a number of fishermen who land at their facilities. In the Georgetown area, a fish house owner reported that approximately 5 vessels that use pots with other snapper grouper gear landed at his particular dock in 1990 and 1991 (Mackie Altman, Waccamah Sales, Georgetown SC; personal communication). Another fish house owner in Rockville, South Carolina reported that some of the boats that consistently fish for black sea bass throughout the year use pots in combination with other gears and some boats make multi-gear black sea bass trips only in the winter months during the spawning closure for wreckfish and when the weather and seas are generally too rough for deep water grouper and tilefish fishing (Micah Laroche, Cherry Point Seafood, Rockville, SC.; personal communication). Approximately 5% of black sea bass TIP samples in South Carolina between 1988 and 1991 indicated that pot gear was not the main gear used on the trip, meaning that the trip was multi-gear. This corroborates public hearing testimony that multi-gear black sea bass and

snapper grouper trips do occur in South Carolina, but once again, official evidence does not confirm the degree to which multi-gear trips are made according to accounts from the fishing industry.

All industry representatives who were contacted informally while this RIR was being prepared indicated that the relative economic importance of the sea bass pot catch while fishing other gears for other snapper grouper species has increased with the new size limits promulgated under Amendment 4. Although there is no systematic way to evaluate this assertion at this time (recent cost and earnings data are not available, for example), it stands to reason that the economic consequences of the newly imposed size limits would be mitigated by attempting to increase the productivity of trips in other ways, particularly for a species such as black sea bass where the biological status is thought to be relatively good and the size limit is not particularly restrictive.

An Environmental Assessment for the Secretarial Emergency Rule written by NMFS in August 1992 (SERO, 1992) accompanying the request to alter the sea bass pot definition to allow for multiple gear trips offers some estimates of revenue losses from the pot definition that was put in place with Amendment 4. The Environmental Assessment suggests that although official NMFS data to quantify the frequency of multi-gear trips are not available, records from a sample of North and South Carolina sea bass pot fishermen indicate that roughly 45% of the value of multi-gear fishermen's annual catch is being forfeited under the present pot definition (SERO, 1992). Based on assumptions made in that document, the total revenue in those states that would be forfeited during the October through December period of a typical year could amount to as much as \$210,000. Much of the information used to arrive at estimated revenue losses in the Environmental Assessment under the present pot definition was apparently provided through personal communications from fishermen and state agencies and as such is not available for review. If these estimates are correct, however, then total annual losses in North and South Carolina under the present pot definition would probably be twice the losses described under the Secretarial Emergency Action document (SERO, 1992) because that estimate covers only approximately one-half of the usual October to April season which is the main period for multi-gear trips according to public testimony.

D. Impacts of the Size Definition of Sea Bass Pots

Some economic impacts will occur from the proposed definition of a sea bass pot. These impacts will result from the requirement in the definition that no dimension other than the diagonal can be greater than 25 inches. Some sea bass pots in use presently are larger than the prescribed size. To estimate these impacts, the list of pot dimensions for pots owned by permitted fishermen as reported in the permit application was reviewed. This list provided information on the home state of the permittee, and the number and dimensions of pots owned by the permit holder. For the

purposes of this analysis, the number of pots per state where at least one dimension other than the diagonal was greater than 25 inches was tallied (Table 3.). To put this information in monetary terms, an estimate of the losses per state (states other than south Atlantic states are aggregated) was calculated using \$15.00 per pot as a baseline figure. As will be discussed briefly below, there are several limitations to the valuation approach that was taken herein, and it is generally believed that the approach gives an upper bound estimate of potential losses per state. In any case, the greatest estimated losses per state are in North Carolina where losses are approximately \$7,000, followed by South Carolina at roughly \$2,800, and \$2,080 for states that are not in the south Atlantic region. Although losses in Florida are nominally slightly higher than those in South Carolina, for reasons that will be explained below, it is believed that actual losses are probably minimal and are not really attributable to the proposed sea bass pot definition.

A figure of \$15.00 per pot was arrived at after conferring with industry representatives involved in the pot fishery. Sea bass pots made of heavier gauge coated wire that can cost as much as \$40-\$50 per pot including warp and floats exist but are not common. Most pots are reportedly made of coated chicken wire and are thought to cost approximately \$10.00 to build because coated chicken wire is far less expensive than the heavier gauge coated wire. A figure of \$15.00 (adding \$5.00 for labor costs) was used as a simple estimate of the replacement value of pots larger than the proposed definition on one or more dimensions other than a diagonal.

There is good evidence, however, for believing that most non-conforming pots could be modified to conform to the proposed definition by cutting down the dimensions that do not conform, rather than having to replace the pot entirely. The real costs to fishermen under that scenario are those associated with the labor of modifying or hiring someone to modify pots, and the replacement costs is hence probably an overstatement of losses per state. Hence the replacement costs per state in Table 3 should be considered to be an upper bound estimate of losses. Modification costs are the labor to cut the pot wire to size and remove the fasteners that hold the wire together, as well as applying new fasteners and possibly coating the exposed metal after cutting. An estimate of typical modification costs is not available because different non-conforming pots involve different types of modification.

For Florida pots, because the dimensions of the pots on the permit list are so much larger than the traditional sea bass trap, it is believed that the pots in question are probably snapper grouper fish traps that are now being used for black sea bass fishing. It is not thought that these "pots" can be modified to meet the definition and the owners would probably face replacement costs instead of modification. It should be noted, however, that those costs are really attributable to Amendment 4 (where they are accounted for as deadweight losses to fish trappers), in lieu of counting them here which would in essence double count them.

Seen from a different perspective, the proposed pot dimensions may bring about benefits in terms of providing a more effective restriction on the illegal use of fish traps to target snapper grouper species other than black sea bass. The definition of sea bass pots promulgated under snapper grouper Amendment 4 is based on less than 25% of the trap contents by number being species other than bank, rock, or black sea bass. Under the Amendment 4 definition, trap devices much larger than those allowed under the proposed redefinition such as those formerly thought of as fish traps could still be in possession as long as the fisherman at the time of the inspection did not possess more than bag limit quantities of snappers and groupers where bag limits are in place. The burden of proof under regulations from Amendment 4 resides in the detection of those traps in use and a clever fisherman might simply haul his fish traps before starting to fish with bandit gear. The present definition of a sea bass pot appears to leave a loophole for those fish trappers who are willing to risk the odds of an at sea inspection while hauling traps. Relying on at sea enforcement as a deterrent is questionable given the present budgets available to Coast Guard and NMFS law enforcement.

Under the new definition, on the water possession of traps of the size of former fish traps will be illegal without verifying the contents of the trap or species in possession. This should make enforcement of the fish trap ban more effective and should eventually discourage the practice of trapping species other than sea bass.

E. Rejected Options for Action 1.

Rejected Option 1. Request implementation of the Council's original emergency request to modify the definition of sea bass pots, allow multi-gear trips, allow retention of incidentally caught fish and have this apply to the black sea bass fishery north of Florida. The existing definition of fish trap would be replaced with the definition for sea bass pot.

Discussion

Less than 1,000 pounds of black sea bass were caught in pots in Florida in 1991, suggesting that multi-gear trips in Florida are probably not of much consequence in Florida if 1991 fishing practices reflect what future practices would have been in the absence of regulation. Thus instituting the new pot definition but allowing the simultaneous use of pots and possession of other snapper grouper species in excess of bag limits north of Florida will have only small effects on fishermen in Florida under present fishing practices, provided NMFS 1991 data are indicative of general trends. Thus the primary impacts associated with not applying the Council's original intention of allowing the traditional sea bass pot fishery to continue in all areas north of Cape Canaveral are mainly in the form of equity and fairness considerations and maintaining perceptions of equal treatment.

According to one north Florida sea bass potter, there apparently are a small number of snapper grouper fishermen who use pots in Federal waters off Florida who have small bycatches of other snapper grouper species, as is the case north of Florida (James G. Hull Jr., Hull's Seafood, Ormand Beach, Florida; personal communication). There are 31 individuals who presently hold sea bass pot endorsements for their snapper grouper permits although according to available evidence, only a fraction of that number is thought to be actively fishing for black sea bass. These fishermen would benefit from applying the new pot definition to their area instead of excluding their area as with this alternative so these bycatches could be retained and multi-gear trips could be made in the future should that fishing strategy be desirable for their area. Under this rejected alternative, these fishermen would not receive the benefits of the new pot definition which carries out the original intention of the Council to allow the traditional pot fishery to continue.

Because this rejected alternative includes provisions to define a black sea pot in such a way as to make the prohibition on fish traps more enforceable, much of the same benefits from increasing the effectiveness of enforcement against illegal use of fish traps under the preferred alternative would be obtained with this rejected alternative.

Rejected Option 2. Request implementation of the Secretary of Commerce's emergency action which modified the definition of sea bass pots, allowed multi-gear trips, allowed retention of incidentally caught fish ONLY off North and South Carolina. The existing definition of a fish trap would be retained north of Cape Canaveral, Florida.

Discussion

This rejected alternative would allow multi-gear trips involving potting black sea bass in the area where the bulk of black sea bass potting occurs. Catches of black sea bass in pots in Florida and Georgia amounted to less than 1,000 lb in 1991 according to NMFS data (that are not yet final) reported in the Environmental Assessment for the Secretarial Emergency Rule for the redefinition of sea bass pots (SERO, 1992). With these apparently small catches of black sea bass in pots in Florida and Georgia, multi-gear trips involving potting black sea bass in those states are not of much consequence at present. Hence the impacts of this alternative are much the same as Rejected Option 1, i.e., a compromise of the Council's original intent to allow the traditional black sea bass fishery to continue and the loss of a potential future fishing strategy, if that strategy would have proved productive for fishermen in Florida north of Cape Canaveral and in Georgia.

The greatest negative aspect of this rejected alternative is that if implemented, it would allow the existing definition of a fish trap to persist wherein it would still be legal to possess traps of the size of traditional fish traps and enforcement actions would depend on observing individuals while retrieving traps and determining trap contents.

Rejected Option 3. In addition to the proposed new definition of a sea bass pot under the proposed action, include a provision to limit the size of the throat opening of the sea bass pot to 5 inches by 2 inches.

Discussion

This option was considered during the Council's deliberations for emergency action and is included to indicate all options considered. To evaluate the potential economic impacts of the proposed size limitation on the throat of the pot under the new sea bass pot definition, length distributions of black sea bass sampled through TIP data 1989-1991 for south Atlantic states were examined. Public comment has suggested that the 5 inch by 2 inch throat size limitation which is currently law in Florida would reduce catch more in states north of Florida because black sea bass are thought to be larger on average in those states than in Florida. Mean and median black sea bass lengths by state from TIP data are reported in Table 4. Results from TIP data suggest that Florida black sea bass (not broken down by gear) are actually larger on average than black sea bass sampled in TIP in the Carolinas, whether caught in pots or by hydraulic reels. This implies that the percentage reduction in catch in the Carolinas would roughly be the same or smaller than in Florida with the regulated throat size maximum of 5 inches by 2 inches. These results should be viewed with caution, however, because black sea bass are a relatively unimportant species in Florida in comparison with the importance of the black sea bass from pots alone in North and South Carolina in terms of landings and exvessel value (see Action 1). In addition, Florida catches described in TIP already reflects a 5 inch by 2 inch throat dimension restriction if the catch comes from state waters, and this would tend to bias the TIP estimate upwards. Thus the throat limitation presently in place in Florida may not shed much light on the potential economic effects of a similar provision in the Carolinas.

Another reason for believing that average size in the Florida catch under the existing 5 inch by 2 inch throat restriction may not represent likely effects on the Carolina fishery is that the degree to which fishermen target black sea bass with pots is thought to be small or minimal in Florida. There are only 31 fishermen permitted to fish sea bass pots currently. As noted earlier, roughly 75% of those pots would not conform to the typical 2 foot cubed pot in the fishery north of Florida and judging from the gear dimensions reported by permit applicants, most "pots" were probably fish traps that are now being employed as sea bass pots. Whether the small catch of black sea bass reported in Florida is from sea bass pots cannot be determined at this time.

Finally, it should be noted that the estimate derived from TIP data of average length of black sea bass in Florida is from a rather small number of fish measured, while this is not the case for North and South Carolina. In Florida, only 43 black sea bass were measured over the time period (1989-1991), and most of these (78%) came from just two trips that were interviewed. For North and South Carolina, between 2,000 and 3,000 black sea bass were measured during the

period in each state, and roughly 50% of these were from the pot fishery. It is generally believed that TIP data on size distributions are more reliable with large sample sizes.

To approximate the expected economic losses to pot fishermen in terms of reductions of black sea bass revenue resulting from the requirement for a maximum 5 inch by 2 inch throat dimension, industry spokesmen were informally queried on their opinions of the degree to which the catch of pot fishermen would be affected. Their opinions varied slightly on the degree to which black sea bass catch in the "large" market category (1.25-2.5 lb) would be affected, but all thought that the "jumbo" class black sea bass (2.5 lb and greater) would not be able to pass through a 5 inch by 2 inch aperture. To evaluate impacts recognizing the limitations of TIP data in this case, a "worst case" scenario based primarily on the opinions expressed by industry representatives involved with the sea bass pot fishery was developed to serve as an upper bound for potential economic impacts on the sea bass pot fishermen.

For the purposes of this analysis, it was assumed that all of the black sea bass in the "large" category in NMFS General Canvass data ("large" encompasses the large and jumbo market categories) that were reported as caught in pots would be sacrificed as a result of the 5 inch by 2 inch throat restriction. Accordingly, exvessel revenue lost to pot fishermen would be \$66,932 in South Carolina according to 1988 data, and would amount to only \$26,742 in North Carolina, based again on 1988 black sea bass catch and value statistics (Table 5). For North Carolina, this somewhat surprisingly low estimate is probably a function of the fact that only a small portion of black sea bass landings from pot gear are classified by size in the NMFS general canvass data.

To estimate losses in North Carolina in a different manner, the proportion of large black sea bass revenue from the pot fishery in South Carolina in 1988 was compared to all black sea bass revenue from the pot fishery in South Carolina in 1988. That proportion was then applied to all black sea bass revenue from traps in North Carolina in 1988. This technique is believed to be a reasonable approximation because the mean and median size of black sea bass in North and South Carolina appear to be fairly similar (Table 4). Estimated in this manner, losses in North Carolina are roughly \$184,000 because 44% of South Carolina black sea bass revenue was from large black sea bass. Total losses of black sea bass revenue from the proposed throat size limitation in south Atlantic states is roughly \$251,000 per year as an upper bound according to the technique used to approximate expected losses.

Although estimates of enforcement costs are not available at this time, it is expected that enforcement costs will be high because on the water enforcement will be required. In addition, prosecuting cases under the throat size restriction is expected to be difficult because pots are usually made of fairly pliable wire and handling as well as underwater forces may deform the throat resulting in legal throat sizes becoming stretched so that the fisherman is in violation, or vice versa. Public comment also stressed that a large black sea bass which was eager to enter a pot

could put the fisherman into violation. When regulations call for very specific measurement criteria on materials that are flexible and can be changed by natural conditions and other factors out of the control of the permitted fisherman, developing evidence and prosecuting cases will be expensive and could be ineffectual.

F. Private and Public Costs

The preparation, implementation, enforcement and monitoring of this or any federal action involves the expenditure of public and private resources which can be expressed as costs associated with the regulations. Costs associated with this specific action include:

Council costs of document preparation, meetings, public hearings and information dissemination	\$15,000
NMFS administrative costs of document preparation, meetings and review	\$10,000
Law enforcement costs	\$ none
TOTAL	\$25,000

The Council and Federal costs of document preparation are based on staff time, travel, printing and any other relevant items where funds were expended directly for this specific action. The proposed measures are not expected to incur additional enforcement costs.

G. Summary and Expanded Discussion of the Economic Impacts

The proposed new definition for sea bass pots under Action 1 is beneficial to sea bass pot fishermen who make multi-gear trips, and also will benefit the processing and distribution sector that handles black sea bass, and consumers who purchase black sea bass. Black sea bass revenue from multi-gear trips is thought to be an important element in the economics of snapper grouper commercial fishing for some vessels, and may be particularly important in light of the tight economic conditions facing snapper grouper fishermen with the recently implemented restrictions under Amendment 4. Keeping restrictions on production to a minimum, wherever possible, is not only good for the fishing industry, but can also be good for consumers and society at large who benefit from efficiency and better use of capital inputs in the long run.

Although defining the size of a sea bass pot has some impacts on fishermen who presently use pots with one or more dimensions other than the diagonal greater than 25 inches, these impacts are expected to be relatively small and can reportedly be mitigated by cutting most oversize pots down to legal size, instead of replacing them. The overall benefit from defining the size of a sea bass pot is that holding pots to that size is expected to prevent any significant bycatch of other species in the snapper grouper complex and make the use of fish traps under the guise of potting

black sea bass easier to detect and prosecute. Enforcement costs for the maximum length of any side of a pot are expected to be substantial but will be mitigated by the fact that fishermen who haul their pots out of the water on every trip can be inspected for non-conforming pots dockside. Enforcement costs for prosecuting cases are not expected to be inordinately high because, even in the case where a pot has been crushed or deformed, the wire on any side of a pot can be returned to close to its original form to determine whether the pot was originally in conformance.

Finally, the proposed 5 inch by 2 inch maximum throat size under Rejected Alternative 3 (considered during the Council's deliberations for emergency action) would have created relatively large negative impacts on black sea bass fishermen who use pots. According to industry spokesmen involved with the sea bass pot fishery, the proposed throat size could severely restrict the harvest of black sea bass in the "large" and "jumbo" market size categories. An upper bound estimate of losses in exvessel total revenue to sea bass potters is approximately \$250,000 per year. If the throat size definition allows a portion of the "large" market category to enter the pot but completely restricts the "jumbo" category, then losses in terms of pounds of black sea bass would decrease but revenue losses would decrease to a lesser degree because prices for "jumbos" are considerably higher than for "large", according to industry spokesmen.

The potential benefits of the throat size restriction have been described as making sea bass pots even less suitable for use as traps to target other snapper grouper species. Data from the MARMAP program and South Carolina Wildlife and Marine Resources Department, however, suggest that standard sea bass pots (without a 5 inch by 2 inch throat) are already not very effective for trapping snappers and groupers. This is supported by public comment which suggested that the small size of the pot itself, regardless of the throat size, is what effectively keeps the pot from having any significant bycatch. Another detraction to the proposed throat size limitation is that enforcement costs are expected to be high and enforcement may be ineffective because of the nature of the material from which sea bass pot throats are made.

H. Determination of a Major Rule

Pursuant to E.O. 12291, a regulation is considered a "major rule" if it is likely to result in: a) an annual effect on the economy of \$100 million or more; b) a major increase in costs or prices for consumers, individual industries, federal, state or local government agencies, or geographic regions; or c) significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

The propose measures are not expected to have a \$100 million effect per year on the economy or to cause an increase in the price of black sea bass to consumers. Also, cost increased to the black sea bass commercial industry are minimal. The federal government is not expected to

incur any increase in enforcement costs and should realize a decrease in costs associated with the emergency regulations. There are no adverse impacts on competition and innovation. Employment, fishery operations and investment in the black sea bass fishery will be more efficient through adoption of the proposed measures. On balance, the proposed measures are not deemed to constitute a "major rule" under any of the criteria.

I. Determination of Significant Impact on a Substantial Number of Small Entities

In general, a "substantial number" of small entities is more than 20 percent of those small entities engaged in a fishery (NMFS, 1992). Economic impacts on small business entities are considered to be "significant" if the proposed action would result in any of the following: a) reduction in annual gross revenues by more than 5 percent; b) increase in total costs of production by more than 5 percent as a result of an increase in compliance costs; c) compliance costs as a percent of sales for small entities are at least 10 percent higher than compliance costs as a percent of sales for large entities; d) capital costs of compliance represent a significant portion of capital available to small entities, considering internal cash flow and external financing capabilities; or e) as a rule of thumb, 2 percent of small business entities being forced to cease business operations (NMFS, 1992).

The proposed measures will not result in a significant impact on a substantial number of small entities because measures proposed, in effect, return the status quo to the fishery which was interrupted by unanticipated and unintentional effects of rulemaking promulgated for the fish trap fishery, not the traditional sea bass pot fishery. Hence there are no real impacts because measures simply reestablish the practices of the sea bass pot fishery which have already, in the interim, been temporarily reestablished under Secretarial emergency action. Therefore, an IRFA is not required.

V. COASTAL ZONE CONSISTENCY

Section 307(c)(1) of the Federal Coastal Zone Management Act of 1972 requires that all federal activities which directly affect the coastal zone be consistent with approved State coastal zone management programs to the maximum extent practicable. While it is the goal of the Council to have complementary management measures with those of the states, federal and state administrative procedures vary and regulatory changes are unlikely to be fully instituted at the same time. Based upon the assessment of this regulatory amendment's impacts in previous sections, the Council has concluded that this action is an improvement to the federal management measures for the black sea bass fishery.

Actions in this regulatory amendment are consistent with the Coastal Zone Management Program of the States of Florida, South Carolina and North Carolina to the maximum extent possible; Georgia does not participate in the Coastal Zone Management Program

This determination has been submitted to the responsible state agencies under Section 307 of the Coastal Zone Management Act administering approved Coastal Zone Management Programs in the States of Florida, South Carolina and North Carolina.

VI. NATIONAL ENVIRONMENTAL POLICY ACT ENVIRONMENTAL ASSESSMENT

The discussion of the need for this framework action, proposed actions and alternatives, and their environmental impacts are contained in Section III of this document. A description of the fishery is contained in Section II. Much of the information presented below is directly from the Environmental Assessment done by NMFS for the emergency interim rule (SERO, 1992).

A. Physical Environment

Sea bass pots are fished primarily in waters less than 20 fathoms (120 feet) off the coasts of North Carolina through northeastern Florida. The fishery occurs mostly during the colder months of the year but catches do occur throughout the year. There is no evidence that the use of sea bass pots damages the environment. Since the proposed action will not change fishing practices, there is no reason to believe that the action will damage the physical environment.

B. Fishery Resource

The framework action will define the dimensions of sea bass pots and enable traditional fishing gear (i.e., sea bass pots, hook and line and bottom longlines outside 50 fathoms) to be used on the same trip. These changes should not adversely impact fishery resources because other management measures are in place to prevent overfishing.

C. Human Environment

The framework action will relieve economic hardship and make fishing operations more profitable because it will become economically effective to utilize sea bass pots, hook and line and bottom longlines (outside 50 fathoms) on the same trip. Also, fishermen will be allowed to retain all legal-sized fish.

D. Effect on Endangered Species and Marine Mammals

The proposed actions have no anticipated impact on threatened or endangered species or on marine mammals. A Section 7 consultation was conducted with the NMFS Southeast Regional Office. A biological assessment was prepared which concluded that the proposed actions will have no anticipated impact on threatened or endangered species or marine mammals. In addition, a Section 7 consultation was conducted for the original fishery management plan and for

Amendment 4 and 5, and it was determined the fishery management plan was not likely to jeopardize the continued existence of threatened or endangered animals or result in the destruction or adverse modification of habitat that may be critical to those species.

E. Effect on Wetlands

The proposed action will have no adverse effect on flood plains, wetlands, trails or rivers.

F. Conclusions

The proposed amendment is not a major action having significant impact on the quality of the marine or human environment of the South Atlantic. The proposed action is an adjustment of the regulations implementing Amendment 4 to the fishery management plan to eliminate unanticipated negative impacts on fishermen. The proposed action should not result in impacts significantly different in context or intensity from those described in the Environmental Impact Statement (EIS) published with the initial regulations implementing the approved fishery management plan. The preparation of a formal EIS is not required for this framework action by Section 102(2)(c)(c) of the National Environmental Policy Act or its implementation regulations. For a discussion of the need for this amendment, please refer to Sections I and II.

Mitigating measures related to proposed actions are unnecessary. No unavoidable adverse impacts on protected species, wetlands, or the marine environment are expected to result from the proposed management measures in this framework action.

The proposed regulations will eliminate impacts on fishermen while continuing to protect the resource from depletion. This action will better achieve the objectives of the fisheries management plan and lessen the environmental impacts of the fishery. Overall, the benefits to the nation resulting from implementation of this amendment are greater than management costs incurred.

G. Finding of No Significant Environmental Impact (FONSI)

Having reviewed the environmental assessment and the available information relating to the proposed actions, I have determined that there will be no significant environmental impact resulting from the proposed actions.

Approved: _____
 Assistant Administrator for Fisheries Date

RESPONSIBLE AGENCY:

South Atlantic Fishery Management Council
 1 Southpark Circle
 Southpark Building, Suite 306
 Charleston, South Carolina 29407-4699
 (803) 571-4366
 (803) 769-4520 (FAX)

LIST OF AGENCIES AND PERSONS CONSULTED:

See the compilation of public input and comments received that was prepared by Council staff (SAFMC, 1992).

LIST OF CONTRIBUTORS

Gregg T. Waugh, Deputy Executive Director, South Atlantic Fishery Management Council
 John R. Gauvin, Fishery Economist, South Atlantic Fishery Management Council
 Jane DiCosimo, Fishery Statistician, South Atlantic Fishery Management Council

LOCATION AND DATES OF PUBLIC HEARINGS

Holiday Inn Ocean Front
 Jacksonville Beach, Florida
 May 18, 1992

South Carolina Wildlife and marine Resources Department
 Charleston, South Carolina
 May 19, 1992

North Carolina Division of Marine Fisheries
 Morehead City, North Carolina
 May 21, 1992

VII. LITERATURE CITED

- NMFS. 1992. Draft Operational Guidelines - Fishery Management Plan Process. Appendix 2.d.: Guidelines on Regulatory Analysis of Fishery Management Actions. April 1992.
- SAFMC. 1983a. South Atlantic Fishery Management Council. Fishery Management Plan, Regulatory Impact Review and Final Environmental Impact Statement for the Snapper Grouper Fishery of the South Atlantic Region.
- SAFMC. 1983b. South Atlantic Fishery Management Council. Source Document for the Snapper Grouper Fishery of the South Atlantic Region.
- SAFMC. 1988. South Atlantic Fishery Management Council. Amendment Number 1 and Environmental Assessment and Regulatory Impact Review to the Fishery Management Plan, for the Snapper Grouper Fishery of the South Atlantic Region.

- SAFMC. 1990a. South Atlantic Fishery Management Council. Amendment 2 (Jewfish), Regulatory Impact Review, Initial Regulatory Flexibility Analysis and Environmental Assessment for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region.
- SAFMC. 1990b. South Atlantic Fishery Management Council. Amendment Number 3 (Wreckfish), Regulatory Impact Review, Initial Regulatory Flexibility Analysis and Environmental Assessment for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region.
- SAFMC. 1991a. South Atlantic Fishery Management Council. Amendment Number 4, Regulatory Impact Review, Initial Regulatory Flexibility Analysis and Environmental Assessment for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region.
- SAFMC. 1991b. South Atlantic Fishery Management Council. Amendment Number 5, Regulatory Impact Review, Initial Regulatory Flexibility Determination and Environmental Assessment for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region.
- SAFMC 1992. Black sea bass public hearings and Council deliberations. December 1992.
- SAFMC. in prep. South Atlantic Fishery Management Council. Updated Source Document for the Snapper Grouper Fishery of the South Atlantic Region.
- SERO. 1992. Environmental assessment of an emergency rule for the snapper grouper fishery of the south Atlantic. August 1992. Prepared by NMFS, SERO.