

North Carolina Fishery Management Plan

Interjurisdictional Fisheries

Fishery Management Plan



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NORTH CAROLINA
INTERJURISDICTIONAL FISHERIES MANAGEMENT PLAN

By

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I. Purpose

The Fisheries Reform Act of 1997 (FRA) requires the Department of Environment and Natural Resources to prepare Fishery Management Plans (FMP) for adoption by the Marine Fisheries Commission (MFC) for all commercially and recreationally significant species or fisheries that comprise North Carolina's marine and estuarine resources. Many FMPs have been developed and implemented by regional Fishery Management Councils (Councils) or the Atlantic States Marine Fisheries Commission (ASMFC). The goal of these plans, established under the Magnuson-Stevens Fishery Conservation and Management Act (federal Councils) and the Atlantic Coastal Fisheries Cooperative Management Act (ASMFC), are similar if not identical to the goals of the FRA to "ensure long-term viability" of these fisheries. Consequently, as required by the FRA, the Council/ASMFC plans when adopted as a North Carolina FMP must:

- a. Contain necessary information pertaining to the fishery or fisheries, including management goals and objectives, status of the relevant fish stocks, stock assessments for multi-year species, fishery habitat and water quality considerations consistent with Coastal Habitat Protection Plans adopted pursuant to G.S. 143B-279.8, social and economic impact of the fishery to the State, and user conflict.
- b. Recommend management actions pertaining to the fishery or fisheries.
- c. Include conservation and management measures that prevent overfishing, while achieving, on a continuing basis, the optimal yield for each fishery.

Optimal Yield is defined in the FRA and the Magnuson-Stevens Act as the amount of fish that:

- a. Will provide the greatest overall benefit to the State (Nation), particularly with respect to food production and recreational opportunities, and taking into account the protection of marine ecosystems;
- b. Is prescribed on the basis of the maximum sustainable yield from the fishery, as reduced by any relevant economic, social or ecological factor;
- c. In the case of an overfished fishery, provides for rebuilding to a level consistent with producing the maximum sustainable yield in the fishery.

The ultimate purpose of this FMP is twofold:

- 1) selectively adopt management measures adopted by Council/ASMFC FMPs by reference as a minimum standard,
- 2) avoid duplication of effort by developing plans under the FRA that have been developed and adopted with input from the state of North Carolina, by the Council/ASMFC, whose goals are very similar to those of the FRA.

II. Goals and Objectives

The goal of the Interjurisdictional Fishery Management Plan is to adopt FMPs, consistent with North Carolina law, approved by the Councils/ASMFC by reference and implement resulting fishery regulations in North Carolina to provide compliance or compatibility with approved FMPs and amendments, now and in the future. To achieve these goals, it is recommended that the following objectives be met:

1. North Carolina Division of Marine Fisheries (DMF), MFC and citizen advisors participate fully, consistent with North Carolina law, in all levels (Advisory Panels, Technical Committees, Monitoring Committees, Stock Assessment Committees, Plan Development and Review Teams, Management Boards, and Committees) of the Council/ASMFC process for developing FMPs and amendments.
2. North Carolina MFC and DMF selectively adopt management measures to implement measures promulgated by the Secretary of Commerce or approved by the ASMFC necessary to implement these FMPs, as well as to achieve the optimum yield from Council/ASMFC managed species.
3. Develop a program of education and public information to help identify the causes and nature of problems in the fish stocks managed by the Councils/ASMFC, their habitat and fisheries, and the rationale for management efforts to solve these problems.
4. Develop and implement a management and regulatory process to provide adequate resource protection, optimize yield from the fishery, and consider the needs of all user groups.
5. Promote harvesting practices, methodologies, and technologies that minimize bycatch.
6. Restore, improve and protect essential, critical fisheries habitat and environmental quality to increase growth, survival, and reproduction.
7. Identify, encourage, and conduct research to improve understanding of population ecology and dynamics.
8. Initiate, enhance, and conduct studies to collect the socioeconomic data needed to properly monitor and manage the fisheries.

III. Authority

The Atlantic Coastal Fisheries Cooperative Management Act and the Magnuson-Stevens Fishery Conservation and Management Act delegate the authority for management of coastal, interjurisdictional fisheries to the ASMFC and the regional fisheries management Councils. Both acts contain measures that may be taken by the federal government should actions be taken, or fail to be taken, that will substantially and adversely affect the carrying out of such fishery management plans. The purpose of these acts is to "provide for the preparation and implementation, in accordance with national standards (for Council FMPs), of

FMPs that will achieve and maintain, on a continuing basis, the optimum yield from each fishery". The FRA likewise requires management for optimal yield.

North Carolina is an active, voting member on the ASMFC as well as the South and Mid-Atlantic Fishery Management Councils. North Carolina's participation in these organizations is critical to ensure that North Carolina's fishermen and fisheries resources are adequately protected and that participation and yield are optimized. To that end, North Carolina and its DMF, MFC and citizens participate fully in the development of all FMPs that have an impact on commercial and recreational fisheries in North Carolina.

Several North Carolina General Statutes deal with the adoption of federal regulations developed under authority of the ASMFC or adopted through the federal Councils by the Secretary of Commerce under authority of the Magnuson-Stevens Fishery Conservation and Management Act. North Carolina G.S. 150B-21.6 states "an agency may incorporate the following material by reference in a rule without repeating the text of the referenced material: (2) All or part of a code, standard, or regulation adopted by another agency, the federal government, or a generally recognized organization or association". North Carolina G.S. 113-228 states that the "MFC in its discretion may by reference in its rules adopt relevant provisions of federal laws and regulations as State rules. Additionally, this G.S. provides for the MFC to be "exempt from any conflicting limitations in North Carolina G.S. 150B-21.6 so that it may provide for automatic incorporation by reference into its rules of future changes within any particular set of federal laws or regulations relating to some subject clearly within the jurisdiction of the Department".

North Carolina G.S. 143B-289.51-52 describes the creation and purpose of the MFC. This statute provides for the MFC to advise the State regarding ocean and marine fisheries within the jurisdiction of the ASMFC and federal Councils to manage or regulate fishing in the Atlantic Ocean and to adopt relevant State rules. Consequently, the MFC and DMF have the authority to develop an FMP that adopts ASMFC and federal Council plans by reference. However, no provisions of any ASMFC or federal Council FMP may be adopted through this FMP unless it complies with applicable provisions of state law.

IV. Organizations

The ASMFC is a compact of the 15 coastal states along the U.S. Atlantic coast from Maine to Florida. The ASMFC mission is "to promote the better utilization of the fisheries, marine, shell and anadromous, of the Atlantic seaboard by the development of a joint program for the promotion and protection of such fisheries, and by the prevention of physical waste of the fisheries from any cause".

The importance of a cooperative program to protect and enhance the fisheries under the jurisdiction of the ASMFC has long been recognized as the most critical component of the ASMFC mission. In 1993, Congress enacted the Atlantic Coastal Fisheries Cooperative Management Act. This Act charges all Atlantic states with implementing coastal fishery management plans adopted by the ASMFC to safeguard the future of Atlantic coastal fisheries in the best interest of

both the fishermen and the nation.

North Carolina and the DMF have staff and citizens who serve as members of ASMFC Management Boards, Monitoring Committees, Technical Committees, Advisory Panels, etc. The Director of the DMF, along with legislative appointees are the key voting members on the ASMFC with DMF staff and citizen advisors representing the scientific, environmental, commercial, and recreational interests of North Carolina.

The Magnuson-Stevens Fishery Conservation and Management Act as amended through October 11, 1996, maintains the establishment of Regional Fishery Management Councils (e.g., South Atlantic and Mid-Atlantic Councils) to “exercise sound judgement in the stewardship of fishery resources through the preparation, monitoring, and revision of Fishery Management Plans which will enable the States, the fishing industry, consumer and environmental organizations, and other interested persons to participate in, and advise on, the establishment and administration of such plans and which take into account the social and economic needs of the States”.

The regional Councils are comprised of the Division Director or his designee, Obligatory (MAFMC and SAFMC) and At-large (SAFMC) positions appointed by the U.S. Secretary of Commerce. Similar to the ASMFC, the Councils appoint citizen advisors from states that have an interest in the specific fishery, to serve on Advisory Panels to assist in the development of fishery management plans.

The clear intent of Congress in these two acts is to establish federal and state partnerships to ensure that the nations fisheries are adequately protected and managed for optimum yield. The public participation in these processes is likewise emphasized, and the mechanisms to ensure public involvement are built into the acts.

V. Council/ASMFC Plan Development

The process for developing FMPs is similar at the ASMFC and Council levels and is likewise similar to the process set forth in North Carolina by the FRA. A public hearing document is produced between the citizen advisory panels and the Council or ASMFC containing management options aimed at recovering an overfished fishery or maintaining a healthy or a recovered fishery. Public hearings are held in the states that declare an interest. Depending on the level of interest in any particular state, from 1 to 3 public hearings may be held to receive public comment. After public comment is received and appropriate changes are made to the FMP, the Council or Commission votes on the management plan.

Council approved FMPs must be subsequently reviewed by the National Marine Fisheries Service, published in the Federal Register for a public comment period and approved by the Secretary of Commerce. Management measures contained in FMPs approved by the full ASMFC go to the individual states for implementation.

VI. Management Unit: Fish Stocks Managed by the Councils and Commission

Table 1 provides a summary of the species currently managed under FMPs developed by the regional Councils and the ASMFC that are listed on the Division of Marine Fisheries 2000 Stock Status Report or are of particular concern to North Carolina. This list constitutes the management unit for this FMP. Other species may be added to this list in the future in subsequent amendments as other fish stocks require Council or ASMFC action. The intent of this FMP would be to include any new species or amendments that are developed in the future. It should be clear that this FMP proposes no new management actions or any actions more restrictive than those required for compliance with FMPs developed by the ASMFC or Councils. Appendix A and B provide detailed descriptions of the FMPs and North Carolina involvement in the development of those FMPs.

VII. Management Plans

Management Plans and their subsequent amendments have been prepared or are in the process of being prepared by the Councils or ASMFC for the species listed in Table 1. Several of these plans have up to 15 regulatory amendments. The intent of this FMP would be to adopt those plans as North Carolina FMPs by reference to provide that regulations developed through these processes are implemented in the state waters of North Carolina. Because of the sheer volume of the plans and amendments, the DMF will maintain all available plans and amendments on file at the DMF headquarters in Morehead City, North Carolina. Anyone desiring copies of the original plans and amendments may obtain them by contacting the DMF office in Morehead City, the South or Mid-Atlantic Council, or the ASMFC and internet (Contacts for each FMP are contained in Section IX).

VIII. Implementation of Council/Commission Plans

Federal law requires that the management actions approved through an ASMFC or regional Council FMP be implemented by the State of North Carolina in order to comply with resulting regulations. Under this FMP, these actions are minimum standards. The intent of this FMP is not to restrict the State of North Carolina or the Marine Fisheries Commission from implementing more restrictive measures deemed appropriate by the best available information and in the best interest of the fisheries resources of North Carolina. At the same time, should management actions be approved by the ASMFC or regional Councils that are deemed contrary to the best interest of the resources or fishermen of the state of North Carolina, the MFC may challenge those restrictions, realizing the implications of a finding that determines the actions or inactions of the state will substantially and adversely affect the carrying out of such FMPs.

Management measures that have gone through multiple levels of citizen advisors, technical review, and public hearings in the state of North Carolina and approved either by the ASMFC and/or the Secretary of Commerce through the Council process shall be selectively adopted as minimum standards by the NC MFC. During the interim between plan approval and MFC action, the Fisheries Director may implement any approved management measure by proclamation if specifically authorized by MFC rule to do so.

Any rule(s) developed by the ASMFC or federal Councils could be challenged by North Carolina if they fail to meet legislative requirements or are deemed not in

the best interest of the resource or fishermen of the State. The Commission Chairman may appoint a Compliance Advisory Panel (CAP) to review whether an issue(s) should be challenged. A majority vote of the MFC would be required to not comply with a regional Council or ASMFC FMP. A finding of non-compliance by the ASMFC would result in a recommendation to the Secretary of Commerce to place a complete moratorium on the species in the state of North Carolina for which the FMP was developed. Should the Secretary of Commerce determine that non-compliance jeopardizes the recovery of the stock, a complete moratorium would be enacted. In the event that the state of North Carolina takes an action or fails to take any action that will substantially and adversely affects the carrying out of a regional Council FMP, the Secretary of Commerce may regulate the applicable fishery within the boundaries of the State (other than its internal waters).

Many of the FMPs developed by Councils/ASMFC require a specific State plan for the reduction in harvest of overfished fisheries for which a federal FMP is developed. Many of the plans provide individual states with options to reduce harvest in overfished fisheries or expand harvest in recovered fisheries that is best suited to the needs of the various fisheries that occur in that state. For example, Amendment #3 to the ASMFC FMP for weakfish provides the states with options on how to reduce the commercial and recreational weakfish harvest. The recreational fishery has a choice of bag and size limits, while the commercial fishery may be regulated by size limits, mesh sizes, closed seasons, and closed areas. In the case where options exist, to develop a plan that best suits the recreational and commercial fishing interests of North Carolina, the Chairman of the MFC may appoint a Council/ASMFC CAP to recommend management actions necessary to meet the requirements of specific FMPs that permit management options to be developed at the state level. The recommendations developed by the CAP will go through the MFC's Finfish Committee, Regional Advisory Committees and full MFC for review and recommendations to the Division for presentation to the Councils/ASMFC. Once the compliance plan is approved by the Council/ASMFC, the MFC is required to adopt the rules necessary for compliance with the ASMFC plan and should complement actions in the federal Council plan. Some FMPs, however, impose mandatory fishery management measures, including quotas, bag limits, size limits, trip limits, etc., for which there are no options or exceptions. These management measures would be required to be adopted by each state affected, including North Carolina, as the minimum standard for that fishery except as noted in the challenge process described previously .

Table 1. Species or species groups managed under the jurisdiction of the ASMFC, South and/or Mid-Atlantic Councils.

| ASMFC | SAFMC | MAFMC |
|------------------------------|-----------------------------|------------------|
| American Eel+ | Dolphin/Wahoo | Monkfish* |
| Atlantic Croaker+ | King Mackerel | |
| Atlantic Menhaden | Reef Fishes | |
| Atlantic Striped Bass | Black Sea Bass-South | |
| Atlantic Sturgeon | | |
| Black Sea Bass-North* | | |
| Bluefish* | | |
| Scup* | | |
| Shad | | |
| Sharks+* | | |
| Spanish Mackerel | | |
| Spiny Dogfish** | | |
| Spot | | |
| Spotted Seatrout | | |
| Summer Flounder* | | |
| Tautog | | |
| Weakfish | | |

* Jointly managed with a regional Council

+ Plans in progress and pending

Species or species groups in bold require federal and/or state permits.

APPENDIX A

The state of North Carolina currently participates in the development and implementation of the following ASMFC or federal Council FMPs that comprise the

management unit for the North Carolina Interjurisdictional Fishery Management Plan. These FMPs are being placed in an appendix to facilitate updates realizing the changing nature of rules and regulations developed under these FMPs for which North Carolina must comply. The list of North Carolina representatives (DMF staff and North Carolina citizens) involved in plan development likewise change over time and are thus contained in Appendix B.

ATLANTIC STATES MARINE FISHERIES COMMISSION

American Eel:

The ASMFC approved the American eel FMP in November of 1999. The eel pot fishery is primarily responsible for the harvest of American eel in North Carolina waters. Participation in and landings from this fishery peaked during the late 1970's to early 1980's then declined to the present low and stable level by the late 1980's. There are no stock assessments for American eel. However, the 1999 plan does require states to more actively sample this fishery to build the meager amount of stock information that is currently available. The FMP requires each state that does not qualify for *de minimis* status to conduct various monitoring activities and to report the findings in their annual compliance report. Specific restrictions regarding the take or possession of American eel are a six (6) inch minimum size limit for both commercial and recreational fisheries as well as a possession limit of 50 eels per person for the recreational fishery. These restrictions have been implemented in both coastal and inland waters. The plan also requires that each state maintain existing commercial restrictions. North Carolina has required a mesh size restriction for eel pots since 1991.

Atlantic Croaker:

Atlantic croaker in North Carolina is under the jurisdiction of the IJA FMP and is overseen by the South Atlantic State-Federal Fishery Management Board through the Atlantic States Marine Fisheries Commission (ASMFC) from Florida to New Jersey. The ASMFC Fishery Management Plan (FMP) for Atlantic croaker, was adopted in 1987, included the states from Maryland through Florida. After a review of early results of the Interstate Fisheries Management Process, the ASMFC determined that the plan for Atlantic croaker should possibly be revised. . A Wallop-Breaux grant from U.S. Fish and Wildlife Service provided fiscal support for a workshop for this species as well as spot. The results would provide the foundation for a major amendment to the 1987 FMP. The October 1993 workshop at the Virginia Institute of Marine Science was attended by university and state agency representatives from six states. Presentations on fishery-dependent and fishery-independent data, population dynamics and bycatch reduction devices were made and discussed. The results and a set of recommendations were included in the workshop report (ASMFC 1993).

Subsequent to the workshop and independent of it, the South Atlantic State-Federal Fisheries Management Board of the ASMFC reviewed the status of several plans to define those compliance issues to be enforced under the Atlantic Coast Fisheries Cooperative Management Act (ACFCMA). The Board found the Atlantic croaker FMP was vague and no longer valid; they recommended an amendment to define management measures necessary to achieve the goals of the FMP. In the final schedule for compliance under the ACFCMA, the Interstate Fisheries Management Program (ISFMP) Policy Board adopted the finding that the current Atlantic croaker

FMP did not contain any management measures that states are required to implement (ASMFC 2002).

A Technical Committee appointed in 1997, compiled data during the summer of 1998. This was the first step in the preparation of a stock assessment. The proceedings of the 1993 workshop as well as data collected by the states and federal agencies since then provided the basis for an amendment to the plan (ASMFC 2002). However, no amendment has been drafted, to date.

In November 2002, the Atlantic croaker stock assessment was prioritized for a SEDAR peer review (ASMFC 2003a; SEDAR report). In April 2003 the Technical Committee began again to compile all data on Atlantic croaker from Florida to New Jersey and complete a full stock assessment. A SEDAR review panel was convened of stock assessment biologists and representatives from the fishing community and non-government organizations. Panel members had expertise in the Atlantic croaker life history and stock assessment methods. The SEDAR review for the Atlantic croaker stock assessment was conducted on October 8-9, 2003 in Raleigh, North Carolina. The Technical Committee completed a supplement to add to the 2003 FMP and to address the issues brought forward by the SEDAR. The supplement is currently under review and a conference call of the Panel on June 8, 2004 will determine if the stock assessment is acceptable to move on to the South Atlantic State-Federal Fishery Management Board for approval.

The Atlantic croaker stock status for the South Atlantic region is unknown at this time. The South Atlantic region makes up a relatively small component of the total stock biomass. Stock status determination in terms of overfishing was also unknown for the mid-Atlantic region at the time of the October peer review. Given that the forward projection age-structured model did not account for a likely significant source of removals by the scrap fishery and there were questions on biomass indices noted in the full Peer Review Panel Terms of Reference Report, the Panel could not determine if overfishing was occurring. Based on the recent trends in survey indices, many members of the Panel accepted that the stock was not overfished; however, full consensus was not reached (ASMFC 2003a; SEDAR report).

The Panel described in their report several major issues that required additional work by the Technical Committee. There were seven short-term issues the Panel felt should be addressed to update the stock assessment. The South Atlantic State-Federal Fisheries Management Board directed the Technical Committee to address five of the short-term issues. These five issues are presented in a supplement to the 2003 FMP and are currently under review by the SEDAR since May 2004 (ASMFC 2004). The other two issues, a coast wide versus regional stock assessment, and the exploration of additional models will be done at a later time. The Technical Committee has started looking into the issue of a coast wide versus a regional model through status of the stock identification. This issue will be addressed further at the time of the next benchmark assessment. The detailed supplement and the updating of the assessment only refer to the mid-Atlantic model. The status of the South Atlantic stock remains unknown.

While this analysis does not capture all of the sources of uncertainty, examination of the effects of alternate weightings of the likelihood components and alternate steepness and natural mortality estimates indicate that reference points derived from the base run are robust, and suggest that there was less than a 10% chance that the population is overfished or undergoing overfishing. Sensitivity analysis

evaluating the inclusion/non-inclusion of shrimp bycatch estimates, indicate that SSB_{msy} estimates are sensitive to the inclusion of Atlantic croaker caught as shrimp bycatch. However, increased SSB_{msy} estimates are also accompanied by higher SSB estimates. The ratio of $SSB_{2002}:SSB_{msy}$ when preliminary estimates of shrimp bycatch is included indicates that the stock is unlikely to be below the threshold estimates.

1. Assessment completed by ASMFC Technical Committee in October 2003 and additional supplement created for review in June 2004 by the SEDAR before going to South Atlantic State-Federal Management Board.
2. $F_{MSY} = 0.39$; $SSB_{MSY} = 28,932$ MT
3. For 2002: $F_{MSY} = 0.263$ and $SSB_{MSY} \sim 80,000$ MT So recent fishing pressure is below target MSY and SSB is above the target SSB.
4. Natural mortality for the base model was 0.3 (based on Hoenig 1983) but used a range from 0.2-0.4
5. Model sensitivity to steepness and natural mortality estimates also indicated the stock was most likely below the fishing mortality targets and thresholds and above the biomass targets and thresholds; 90 % of the simulations had $F_{2002}:F_{msy}$ ratios less than 0.44 and 10% of the runs had $SSB_{2002}:SSB_{msy}$ ratios less than 2.16.
6. The stock is not overfished or undergoing overfishing. However, biomass reference points from the simulation runs including shrimp trawl bycatch indicated higher SSB_{msy} values and the lower estimates of $SSB_{2002}:SSB_{msy}$ than those obtained for the base model. The range of estimates for F_{msy} (~ 0.4) was similar to the base model (~ 0.39). SSB_{msy} estimates from the simulation (ranged from 48,000-67,000 MT with a median of 56,467 MT) and were much higher than those for the base run (28,932 MT).
7. Sensitivity analysis evaluating the inclusion/non-inclusion of shrimp bycatch estimates, indicate that SSB_{msy} estimates are sensitive to the inclusion of Atlantic croaker caught as shrimp bycatch. However, increased SSB_{msy} estimates are also accompanied by higher SSB estimates. The ratio of $SSB_{2002}:SSB_{msy}$ when preliminary estimates of shrimp bycatch is included indicates that the stock is unlikely to be below the threshold estimates.

Atlantic Menhaden:

The Atlantic menhaden FMP was originally approved by the ASMFC in 1981. That plan was replaced by a revised plan in 1992. Neither plan included any restrictions on fishing. There is a single menhaden stock distributed along the Atlantic coast from central Florida to the Gulf of Maine. Adults migrate north along the coast during the spring, with the larger, older fish going farthest. The fish migrate south in the fall, supporting large harvests off Virginia and North Carolina. The stock was recruitment overfished during the mid-1960s to the mid-1970s, but recovered well by the mid 1980s and is presently reduced in size, but not overfished. Although the spawning stock is considered adequate, recruitment has been poor since the late 1980s because of unidentified environmental factors that control spawning success. Atlantic menhaden are a pelagic schooling fish, well suited to capture by purse seines in estuaries and the near shore ocean for reduction to fishmeal and oil (90% of the harvest), as well as use for bait. The fishery has declined greatly over the last 25 years, primarily for economic and social reasons, as the coastal areas occupied by the plants have become urbanized. Menhaden meal and oil compete with soybean, corn and other plant and animal meals and oils in world markets, so they are subject to wide demand and price fluctuations. Only two processing plants (in North Carolina and Virginia) and a dozen vessels remain in the Atlantic coast reduction fishery, but those vessels land a greater volume of fish than any other Atlantic coast commercial fishery. The ASMFC is preparing Amendment 1 to the 1992 FMP. The amendment will

(1) provide for a management board, technical committee, and advisory committee structure identical to those in other ASMFC plans, and (2) define overfishing through a combination of spawning stock biomass and fishing mortality measures. The amendment may also recommend some restrictions on fishing areas or seasons, primarily for social, not biological, reasons.

Atlantic Striped Bass:

In 1981, the ASMFC developed and adopted the *Interstate Fisheries Management Plan for the Striped Bass of the Atlantic Coast from Maine to North Carolina* (FMP). Striped bass are currently managed under Addendum IV to Amendment 5 of the FMP. The ASMFC Striped Bass Management Board oversees development of the plan. Striped bass are a major component of the gill net, pound net, and hook- and-line fisheries from Maine to North Carolina. Commercial landings along the coast peaked at almost 15 million pounds in 1973. The harvest then declined by 77 percent to 3.5 million pounds in 1983, resulting in a moratorium on harvest of the Atlantic migratory population. The fishery reopened in 1990, with North Carolina's ocean commercial fisheries being managed by a total allowable catch (TAC). An updated stock assessment is conducted annually by the Technical Committee. Amendment 6 of the FMP is scheduled to be developed with the aid of the Advisory Board in 2001. Under Amendment 5, the Atlantic Ocean fisheries are required to maintain a 28" minimum size limit. The recreational fishery is held to a two fish bag limit. The commercial fishery has been held to a 336,000 pound TAC. The North Carolina Striped Bass Cooperative, must submit a fishing plan to the ASMFC for all fishing activities in the Albemarle Sound Management Area and the Roanoke River Management Area for the upcoming calendar year. This plan must be approved by the ASMFC Striped Bass Management Board before any commercial or recreational fishing may occur. Restrictions for the Management Areas include, an 18" minimum size limit, recreational bag limits of no more than three fish, gill net mesh restrictions, commercial catch limits, a 50% bycatch provision for gill nets, and recreational and commercial quotas.

Atlantic Sturgeon:

The ASMFC adopted a FMP for Atlantic sturgeon in 1990. Among the management recommendations of that plan was the statement that states should adopt a 1) Minimum size limit of 2.13 m TL and institute a monitoring plan; 2) A moratorium on all harvest; or 3) An alternative measure to be submitted to the Plan Review Team for determination of conservation equivalency. In North Carolina, effective September 1, 1991, the Marine Fisheries Commission made it unlawful to possess sturgeon. Amendment 1 to the Atlantic sturgeon FMP was approved in July 1998. The goal of this amendment is to restore Atlantic sturgeon spawning stocks to population levels which will provide for sustainable fisheries, and ensure viable spawning populations. The DMF Director, Legislative appointee, and Governor's appointee are voting members on the ASMFC's Policy Board and the Sturgeon Technical Committee reviews any amendments to the plan.

Black Sea Bass (North of Cape Hatteras):

The ASMFC and MAFMC manage summer flounder, scup and black seas bass under a joint FMP. Black sea bass are managed from Cape Hatteras to the US/Canadian border under this plan. A FMP for black sea bass was first approved in 1996 as the ASMFC FMP for Black Sea Bass and as Amendment 9 to the Summer Flounder FMP (At this point the MAFMC FMP was titled the Fishery Management Plan for the Summer Flounder, Scup and Black Sea Bass Fishery). Amendment 9 contained a number of management measures including commercial quotas, recreational harvest limits, minimum fish sizes, and gear regulations. The plan implemented a 9" total length size for black sea bass in 1996 and 1997 and a 10" size limit since then. Minimum mesh sizes in the directed trawl fishery have been 4" diamond or 3 ½" square and escape vent size for fish traps has been 1.125" since 1996. Bio-degradable fasteners must be used in one panel or door of fish traps. The Technical Committee reviews technical aspects of proposed management measures and stock assessment information. Amendment 12 to the FMP identifies overfishing for black sea bass as a fishing mortality rate that exceeds the threshold fishing mortality rate of F_{MSY} . Because F_{MSY} cannot be reliably estimated, F_{max} is used as a proxy for F_{MSY} . F_{max} is 0.32 under current stock conditions. The maximum value of the spring survey index based on a three-year moving average (0.9 kg/tow), would serve as a biomass threshold. B_{MSY} cannot be reliably estimated for black sea bass. The Black Sea Bass FMP Monitoring Committee, comprised of staff members from MAFMC, ASMFC, NMFS, USFWS, and state agencies, recommends annual management measures for consideration by ASMFC/MAFMC and NMFS.

The most recent stock assessment on black sea bass north of Cape Hatteras, completed in June 1998, indicates that black seas bass are over exploited and at a low biomass level.

Bluefish:

The joint ASMFC/MAFMC bluefish plan was adopted in 1989. Bluefish are migratory, pelagic species that are the target of a major recreational fishery along the Atlantic coast, and are pursued in both state (Maine to Florida) and EEZ waters by a variety of commercial gears, with gill nets and otter trawls being the predominant gear types. While the biomass of bluefish along the Atlantic coast increased from 1994 through 1997, further rebuilding of the stock is necessary to meet new requirements of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) of 1976, as amended by the Sustainable Fisheries Act (SFA) of 1996. In October 1998, ASMFC approved and the MAFMC adopted Amendment 1. In July 2000, Amendment 1 was approved by the Department of Commerce, and NMFS issued a final rule for its implementation. Amendment 1, developed in concert with the Citizens Advisory Panel, modifies the overfishing definition for bluefish and provides a number of commercial and recreational management measures that could be used to conserve the bluefish resource. Amendment 1 to the FMP establishes a Bluefish FMP Monitoring Committee that is made up of staff representatives of the Mid-Atlantic, New England, and South Atlantic Fishery Management Councils, the Northeast Regional Office, the Northeast

Fisheries Center, and Commission representatives. The Bluefish FMP Monitoring Committee annually reviews the best available data and recommends commercial (annual quota, minimum fish size, minimum mesh size) and recreational (possession and size limits and seasonal closure) measures to assure that the target mortality level for bluefish is not exceeded. The Amendment continues the current 10 fish recreational possession limit, and no minimum size limit. Amendment 1 includes a nine-year plan for rebuilding the stock. Rebuilding is projected to be accomplished through a graduated reduction in the fishing mortality rate (F) such that F will remain at the current level ($F=0.51$) for the first two years of the rebuilding plan (1999-2000), then will be reduced to $F=0.41$ in years 3-5 (2001-2003), and finally to $F=0.31$ in years 6-9 (2004-2007). The rule implements permit and reporting requirements for commercial vessels, dealers, and party/charter boats, and implements permit requirements for bluefish vessel operators. To help eliminate duplication of state and federal permits, the Amendment allows states with a permit system in place to implement mechanisms consistent with the Atlantic Coastal Cooperative Statistics Program. The Amendment establishes a state-by-state quota system based on the historic proportion of commercial and recreational landings for the period 1981-1989: 17% of the total allowable landings are allocated to the commercial fishery, and 83% of the total allowable landings are allocated to the recreational fishery. Each state will be required to close its waters to fishing when its share of the quota is landed. If the commercial quota is less than 10.5 million pounds, the quota may be increased to 10.5 million pounds, if the recreational fishery is not anticipated to land their entire allocation for the upcoming year.

Scup:

The ASMFC and the MAFMC manage summer flounder, scup and black seas bass under a joint FMP. A FMP for scup was first approved in 1996 as the ASMFC FMP for Scup and as Amendment 8 to the Summer Flounder FMP (At this point MAFMC FMP was titled the Fishery Management Plan for the Summer Flounder and Scup Fishery). This plan established a coastwide quota, established F_{max} as the overfishing threshold, and developed a fishing mortality rate reduction strategy that included minimum fish sizes and gear restrictions. Addendum 1 to the joint plan revised the commercial quota system for scup to address discards and overages, established three harvest periods: January to April, May-October, and November-December, and established landing limits. Amendment 12 to the FMP established revised overfishing definitions, identification and description of essential fish habitat, and defined the framework adjustment process. Per Amendment 12, overfishing for scup is defined to occur when the fishing mortality rate exceeds the threshold fishing mortality rate of F_{MSY} . Because F_{MSY} cannot be reliably estimated, F_{max} is used as a proxy for F_{MSY} . The maximum value of the spring survey index based on a three-year moving average, would serve as a biomass threshold since B_{MSY} cannot be reliably estimated for scup. Amendment 14, which deals with the scup quota, is under development. The Black Sea Bass FMP Monitoring Committee, comprised of staff members from MAFMC, ASMFC, NMFS, USFWS, and state agencies, recommends annual management measures for consideration by ASMFC/MAFMC and NMFS.

The most recent stock assessment was conducted in 2000 for fishing years through calendar 1999. The scup stock is overfished and the current index of spawning stock biomass is low. Catch curve analyses indicate that F for ages 0-3 exceeds 1.0 and is considerably above the fishing mortality rate threshold ($F_{\max}=0.26$).

Shads and River Herring:

The FMP for American shad, hickory shad, blueback herring and alewife was adopted in 1985 by the ASMFC, but no restrictions were included. Amendment #1 of the FMP was approved by the Shad and River Herring Management Board in October 1998. Because of the scarcity of reliable data on river herring and hickory shad populations along the East Coast, the ASMFC member states decided to focus the amendment on American shad regulations and monitoring programs. However, the amendment requires states to initiate fishery-dependent monitoring programs for river herring and hickory shad while recommending continuance of current fishery-independent programs for these species. As data become available for river herring and hickory shad fisheries, states will develop a better understanding of stock status and may take regulatory action at a future date. The FMP recommends that existing state management regimes be maintained or strengthened. Alosids support commercial and recreational fisheries along the entire East Coast. However, all of these fisheries have declined dramatically. North Carolina landings of these species have also declined since the 1970s. A stock assessment was conducted on American shad through 1996 by the Shad and River Herring Technical Committee and was reviewed by the Stock Assessment Review Committees. For NC only landings trends were evaluated since no fishery independent or dependent sampling program has existed since the early 1980s in some systems, and 1993 in the Albemarle Sound area. As data become available on river herring and hickory shad an amendment to the FMP will be developed with the assistance of the Advisory Panel. There are specific restrictions required under the amendment on the states: mandatory reporting on catch and effort in commercial fisheries for all alosines, phase-out the American shad ocean intercept fishery by 2005 (40% reduction in effort must occur in first three years), and all jurisdictions shall not exceed an aggregate 10 fish daily creel limit in recreational fisheries for American shad or hickory shad.

Sharks:

The FMP for sharks is forthcoming from the ASMFC and has no current management actions.

Spanish Mackerel:

The South Atlantic Fisheries Management Council manages the king and Spanish mackerel fisheries through the Coastal Migratory Pelagics FMP. The original plan was approved by the Secretary of Commerce in February 1983. The plan consists of 9 regulatory amendments. For Spanish mackerel, the FMP implements a quota for both recreational and commercial fisheries, minimum size limit, recreational bag limit, and an allocation between recreational and commercial user groups.

Quotas and bag limits have been increasing over the last several years due to the strong recovery of the stock.

An ASMFC FMP for Spanish mackerel is in place and complements the actions of the SAFMC FMP.

Spiny Dogfish:

The FMP for spiny dogfish was jointly adopted by the MAFMC and NEFMC on May 1, 2000. The joint Spiny Dogfish Committee and the Spiny Dogfish Industry Advisory Panel oversees development of the plan. A directed gill net fishery for spiny dogfish developed in the late 1980's and extended into North Carolina waters in the early 1990s. Landings of spiny dogfish peaked in 1996 at 13,210,735 pounds and have decreased every year since to 2000 where landings were 3,546,205 pounds. The Northeast Fisheries Science Center (NEFSC) declared spiny dogfish as overfished in 1997. The most recent NEFSC Stock Assessment shows mature female spawning stock biomass has declined from 112,000 metric tons (mt) in 1998 to 86,000 mt in 2000. The current FMP has a 15-20 year schedule for rebuilding the female spawning stock biomass to 167,464 mt. A constant fishing mortality rate (F) of 0.03 is used to establish annual quotas and trip limits for a non-directed commercial fishery during the rebuilding period. An annual fishing season beginning May 1 divided into six month periods (May 1-October 31 and November 1- April 30) is also in place. The plan also requires dealers and commercial fishermen to obtain a Federal permit, and to report landings and fishing activity on a weekly basis. The ASMFC established an Emergency Action that closes state waters to spiny dogfish harvest when the federal waters are closed until the ASMFC establishes an FMP for state waters. The ASMFC Spiny Dogfish Technical Committee and Plan Development Team is currently working with the ASMFC Spiny Dogfish Management Board on this FMP.

Spotted Seatrout:

The ASMFC adopted the *Fishery Management Plan for Spotted Seatrout* (Plan) in 1984, and Amendment 1 to the Plan in 1991. Amendment 1 added an objective of maintaining a spawning potential ratio (SPR) of at least 20% to minimize the possibility of recruitment failure. States participating in the Plan include: Maryland, Virginia, North Carolina, South Carolina, Georgia, and Florida. The goal of the Spotted Seatrout Plan is "to perpetuate the spotted seatrout resource in fishable abundance throughout its range and generate the greatest possible economic and social benefits from its harvest and utilization over time".

The plan's objectives are to: 1) attain over time optimum yield; 2) maintain a spawning potential ratio of at least 20% to minimize the possibility of recruitment failure; 3) promote conservation of the stocks in order to reduce the inter-annual variation in availability and increase yield per recruit; 4) promote the collection of economic, social, and biological data required to effectively monitor and assess management efforts relative to the overall goal; 5) promote research that improves understanding of the biology and fisheries of spotted seatrout; 6) promote harmonious use of the resource among various components of the fishery through coordination of

management efforts among the various political entities having jurisdiction over the spotted seatrout resource; 7) promote determination and adoption of standards of environmental quality and provide habitat protection necessary for the maximum natural protection of spotted seatrout.

The specific management measures contained in the Plan to achieve this goal are: (1) a minimum size limit of 12 inches in total length for both commercial and recreational fisheries; and (2) the collection of improved catch and effort data from the commercial and recreational fisheries, including size and composition of the catch, along with socioeconomic data. The Plan also recognized the possibility that additional measures, such as creel limits, catch quotas, area closures, and gear restrictions may be needed in the future.

Since the Commission's adoption of the original Plan in 1984 and Amendment 1 to the Plan in 1991, all six states with an interest in this species have established a minimum size limit of at least 12 inches. In addition, each state has either initiated data collection programs for spotted seatrout, or modified other programs so that needed information on this species is being gathered.

Spotted seatrout are taken by both commercial and recreational fishermen in the South Atlantic region (North Carolina through the east coast of Florida); with the exception of South Carolina where legislature designated spotted seatrout a game fish in 1987 and thereby they can only be taken by recreational means.

Atlantic coast commercial landings of spotted seatrout over the past 30 years have come primarily from Florida's east coast (67%) and North Carolina (28%), while Virginia, South Carolina, and Georgia have accounted for the remaining five percent. During the 1980's, the majority of commercial landings came from the east coast of Florida, while in the 1990's, the majority of commercial landings have come from North Carolina. While usually not specifically targeted, spotted seatrout are harvested as one component of mixed species commercial fisheries. Florida's east coast landings are taken primarily by gill nets with some hook-and-line fishing, while North Carolina's landings are primarily taken by haul seines and gill nets which are prohibited in Florida's coastal waters (1995).

Summer Flounder:

The ASMFC and the MAFMC manage summer flounder, scup and black seas bass under a joint FMP. The original ASMFC FMP for summer flounder was approved in 1982. The MAFMC FMP for summer flounder, prepared in 1988, established a 13" minimum size. Since then, twelve amendments have been developed jointly by ASMFC and MAFMC. The plan and its amendments have been developed with input from a MAFMC Plan Development Team, an ASMFC Plan Review Team, and MAFMC Advisors. Some amendments dealt with scup or black seas bass. All amendments were developed jointly by ASMFC and MAFMC. Amendment 2, approved in 1992, provided a strategy for reducing fishing mortality to F_{max} , balanced against reasonable impacts on the fishermen. Management measures included a federal (EEZ) moratorium on entry into the commercial fishery, vessel and dealer permitting and

reporting requirements, an annual commercial quota, and minimum mesh requirements with an exemption program. Recreational fishery measures include size limits, possession limits, and seasonal closures. The Summer Flounder FMP Monitoring Committee, comprised of staff members from MAFMC, ASMFC, NMFS, USFWS, and state agencies, recommends annual management measures for consideration by ASMFC/MAFMC and NMFS.

The ASMFC Summer Flounder, Scup and Black Sea Bass Technical Committee reviews technical aspects of proposed management measures and stock assessment information. Amendment 10 allowed framework adjustments to the minimum mesh for any portion of the net and required 5.5" diamond mesh between the wings and the codend of trawls. Amendment 12, which establishes revised overfishing definitions, identification and description of essential fish habitat, and defines the framework adjustment process, is the most recent amendment. Amendment 13, which would allow for conservation equivalency in the recreational fishery for summer flounder, and Amendment 15 which will revisit all aspects of management for the summer flounder, are under development (Amendment 14 deals with scup).

The most recent stock assessment, conducted in 2000 for fishing years through calendar year 1999, indicates the stock is recovering but still overfished. The fishing mortality has declined from 1.31 in 1994 to 0.32 in 1999. The target fishing mortality, F_{max} , is 0.26. The age structure of the spawning stock has expanded, with 78% at ages 2 and older, and 10% at ages 5 and older.

Spot:

The FMP for spot was adopted in 1987 by the ASMFC and includes the states from Delaware through Florida. The South Atlantic Board of the ASMFC oversees development of the plan. A workshop on spot and croaker was held in October 1993 to lay groundwork for a major amendment to the 1987 FMP. All state reports and recommendations were included in the workshop report. The South Atlantic Board reviewed the status of the spot FMP to define compliance issues. In a final schedule for compliance under the Atlantic Coastal Fisheries Cooperative Management Act (ACFCMA), the Interstate Fisheries Management Program (ISFMP) Policy Board adopted the finding that the current spot FMP does not contain any management measures that states are required to implement.

Spot are a major component of the haul seine, flynet, pound net, gill net and hook and line fisheries from Delaware through Florida. There are no direct restrictions on the spot fishery in North Carolina. Indirect regulations like the BRD requirements for shrimp trawls, culling panels in long haul seines, limiting scrap fish catch to 5,000 lb. per vessel per day, and closure south of Cape Hatteras to flynets, have all had a positive effect on the spot population.

Tautog:

The FMP for tautog was adopted by the ASMFC in 1996. Addendum I, approved in 1997, adjusted the compliance schedule and added *de minimis* specifications.

Addendum II, approved in 1999, further adjusted the compliance schedule. In 2001, Addendum III proposed management strategies to reach the final target (F) for the population. The FMP is overseen by the ASMFC Tautog Management Board. Technical duties are the responsibility of the Tautog Technical Committee and the Stock Assessment Subcommittee. North Carolina has not declared an interest in tautog and is not represented on the Management Board. Total North Carolina tautog landings are minor (< 5000 lbs. in 2000), and are predominantly composed of recreationally captured fish (> 86% in 2000).

ASMFC stock assessments have addressed the stock regionally, from Massachusetts to New Jersey and Delaware to Virginia. Fishing mortality rates were high during the 1980's and early 1990's, but have started to decline in recent years. The ASMFC Management Board was concerned that fishermen from northern states might attempt to land fish in North Carolina to avoid more restrictive regulations. It is suggested that North Carolina request *de minimis* status and implement a suite of fishery regulations. Specific management measures required of *de minimis* states include a 14" minimum size, degradable fastener provisions for pots, and commercial possession limits and seasons equivalent to recreational requirements. However, when the FMP was developed there were inadequate data to prepare recreational bag and season requirements for North Carolina. North Carolina can consider developing rules that provide protection against expansion in landings. Since most recreational trips in North Carolina land 1 or 2 tautog, a 5 fish possession limit for commercial and recreational fisheries has been proposed as a reasonable alternative that (1) prevents excessive expansion of the fishery, and (2) is not an undue burden (J. Carmichael; Fisheries Management Central District). No rules have been adopted as of 2001.

Weakfish:

The FMP for weakfish was adopted in 1985 by the ASMFC. The FMP was amended in 1991, 1994, 1996 and most recently by Amendment #4 in 2001. The Weakfish Management Board of the ASMFC oversees development of the plan. Weakfish are a major component of the haul seine, flynet, pound net, gill net and hook and line fisheries from New York through North Carolina. North Carolina landings declined to low levels in the mid 1990's but have steadily increased since 1996. A quantitative stock assessment through 1998 was conducted by the Weakfish Technical Committee and was favorably reviewed by the Stock Assessment Review Committees in Wood's Hole, Massachusetts. This assessment suggests that the target reduction in fishing mortality rate has been achieved and that the age structure of the population is improving. Amendment #4 to the FMP, designed to manage the recovered fishery, is likely to be drafted within the next one to two years with the Advisory Panel. There are specific restrictions required under Amendment #3 to the weakfish FMP. These include; BRD requirements for shrimp trawls, 12 inch commercial minimum size limit for all but estuarine pound net and long haul seine fisheries (seasonal 10 inch size limit), minimum mesh sizes for gill nets and trawls, 150 pound bycatch allowance in non-directed fisheries, and recreational bag and size

limit (currently 10 fish at 14 inches). In addition, North Carolina was required to reduce harvest by 35%. The harvest reduction was achieved by closing the area south of Cape Hatteras to flynets.

MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

Monkfish:

The FMP for monkfish was jointly adopted by the NEFMC and MAFMC on November 8, 1999. The joint NEFMC and MAFMC Monkfish Committee and the Monkfish Industry Advisory Panel oversees development of the plan. Monkfish were historically a bycatch from the groundfish and scallop fisheries but recently became a directed fishery by large mesh gillnets, deepwater trawls, and scallop dredges. The directed gillnet fishery for monkfish extended into North Carolina waters in the mid 1990s. Average annual landings went from 104,620 pounds from 1989-1993 to 568,641 pounds from 1994-1999. The Northeast Fisheries Science Center fall bottom trawl index for monkfish has declined in the last 15 years, mean size at capture has decreased throughout the species range, and the recent fishing mortality has exceeded acceptable levels. As a result, the 23rd Northeast Regional Stock Assessment Workshop concluded that monkfish are overfished. The FMP establishes two management areas (northern and southern) with annual total allowable catches for each, limited entry along with different permit categories for the directed fishery, an annual limit of 40 days at sea fishing for monkfish, and allows the traditional incidental catch to occur. The annual TAC levels are based on a fishing mortality rate (F) of 0.07 in the Northern Fishery Management Area and 0.26 in the Southern Fishery Management Area (SFMA).

SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

Black Sea Bass (south of Cape Hatteras):

The SAFMC manages black sea bass south of Cape Hatteras, North Carolina. The Secretary of Commerce implemented the original SAFMC Snapper Grouper FMP, which includes black sea bass, on August 31, 1983. The FMP established an 8" total length minimum size for black sea bass. It also required that fish traps have a degradable panel or degradable door fasteners. Fish traps were also required to have a mesh size no smaller than 1" x 2" or 1.5" hexagonal. Since 1983, 12 amendments have been developed dealing with various aspects of this fishery. Amendment 4, approved on August 26, 1991, became effective on January 1, 1992. Among many items, it prohibited the use of fish traps in South Atlantic federal waters with the exception of black sea bass traps when used north of Cape Canaveral, Florida. A permit, gear, and vessel and trap identifications were required to fish with black sea bass traps. Implementation of Amendment 4 resulted in a prohibition on black sea bass fishermen making multi-gear trips and retaining other species, which resulted in large, unintended economic losses. The SAFMC subsequently requested emergency regulations on July 8, 1992 to modify the definition of black sea bass pot, allow multi-gear trips, and allow retention of incidentally caught fish. These regulations became effective on August 31, 1992 and were extended on November 30, 1992. The final rule

was published on July 6, 1993 with an effective date of July 6, 1993. On February 6, 1997, the SAFMC requested establishment of a control date for the black sea bass pot fishery; April 23, 1997 is the control date for this fishery. Amendment 9, which was based on the 1996 stock assessment, was implemented on February 24, 1999. This Amendment increased the minimum total size to 10" and established a 20 fish bag limit for recreational/non-permitted fishermen. It also further defined black sea bass pot requirements. 1) A minimum unobstructed escape vent opening of 1-1/8 x 5-3/4" for rectangular vents, 1.75" x 1.75" for square vents (inside measure), or 2" diameter for circular vents is required. Also, pots require a minimum of 2 vents that must be located on opposite vertical panels of the pot. In effect, this excludes the top or bottom as locations for the escape vents. 2) A pot is required to have on at least one side, excluding top or bottom, a panel or door with an opening equal to or larger than the interior end of the trap's throat (funnel). The hinges and fasteners of each panel or door must be made of either ungalvanized or uncoated iron wire no larger than 19 gauge or 0.041" diameter or galvanic timed release mechanisms no letter grade higher than "J". Amendment 10 was approved on June 3, 1999. The final rule has not been published at this date. This Amendment identified essential fish habitat for species in the snapper grouper complex and established essential fish habitat-habitat areas of particular concern for this management unit.

The most recent stock assessment, conducted in 1996, was based on data through 1995. Black sea bass is considered to be overfished with static SPR of 26%. The average fishing mortality rate (F) for 1991-1995 was 0.95. The SAFMC concluded that measures in Amendment 9 (increased size limits and bag limits) are sufficient to rebuild black sea bass above the overfished level (SPR 30%).

Dolphin/Wahoo:

The goal of the Dolphin/Wahoo FMP, is to take a precautionary and risk averse approach to manage these species and maintain the current level of harvest and prevent any new or expanding fisheries that compromise the current allocation between commercial and recreational fishermen.

The FMP for dolphin/wahoo was approved in June 2004. The following actions were approved by the Secretary of Commerce and published in the Federal Register:

Dolphin:

- 1) 10 fish recreational bag limit
- 2) 60 fish recreational boat limit
- 3) No recreational sale except by properly licensed charter boats
- 4) 13% or 1.5 million pound commercial allocation
- 5) vessel, operator, and dealer permit requirements

Wahoo:

- 1) 2 fish recreational bag limit
- 2) No recreational sale

- 3) 500 pound commercial trip limit
- 4) vessel, operator, and dealer permit requirements

It is important to note that this FMP may be modified by framework actions if the allocation or commercial harvest compromises the historical recreational fishery or results in conflict. For example, if the commercial harvest exceeds the 1.5 million pound quota **and** exceeds the 13% allocation, framework actions may be used to reduce the commercial harvest. However, the commercial harvest might exceed 1.5 million pounds during an extraordinary year but not exceed the 13%. This dual cap/allocation provides a safeguard but also allows the commercial fishery to capitalize on a strong year class of dolphin, within limits.

King Mackerel:

The South Atlantic Fisheries Management Council manages the king and Spanish mackerel fisheries through the Coastal Migratory Pelagics FMP. The original plan was approved by the Secretary of Commerce in February 1983. The plan consists of 9 regulatory amendments. For king mackerel, the FMP implements a quota for both recreational and commercial fisheries, minimum size limit, recreational bag limit, commercial trip limits, and allowable gear provisions. Quotas and bag limits have been increasing over the last several years due to the strong recovery of the stock.

Reef Fishes:

The South Atlantic Fisheries Management Council manages the snapper-grouper fishery. The original SAFMC Snapper Grouper Fishery Management Plan was implemented by the Secretary of Commerce on August 31, 1983. The FMP established minimum sizes for five species. Additional harvest and gear limitations were also in the original plan. Since 1983, 12 amendments have been developed dealing with various aspects of this fishery. Amendment 1 which was implemented January 12, 1989, prohibited use of trawl gear to harvest fish in the snapper-grouper fishery. Amendment 2, approved on October 10, 1990, prohibited the harvest of jewfish in the EEZ. Amendment 3 established a management program for the recently developed wreckfish fishery and was effective January 31, 1991. Amendment 4, approved on August 26, 1991, became effective on January 1, 1992. It prohibited 1) use of fish traps except for black sea bass pots when used north of Cape Canaveral, FL, 2) use of entanglement nets, 3) use of longline gear inside 50 fathoms, 4) use of bottom longlines for wreckfish, and 5) use of powerheads and bangsticks in designated Special Management Zones off SC. The SAFMC subsequently requested emergency regulations on July 8, 1992 to modify the definition of black sea bass pot, allow multi-gear trips, and allow retention of incidentally caught fish. These regulations became effective on August 31, 1992 and were extended on November 30, 1992. The final rule was published on July 6, 1993 with an effective date of July 6, 1993. Amendment 5 established Individual Transferable Quota management program for the wreckfish fishery, effective April 6, 1992. Amendment 6, effective June 27, 1994, dealt with the deepwater species and commercial trip limits, recreational bag limits, and an experimental closed area off FL. Amendment 7, effective January 23,

1995, established minimum size limits on two species, required dealer, charter and headboat federal permits, made allowances for multi-gear trips off NC, and a few other minor items. On February 6, 1997, the SAFMC requested establishment of a control date for the black sea bass pot fishery; April 23, 1997 is the control date for this fishery. Amendment 8 established a program to limit initial eligibility for participation in the snapper-grouper fishery and became effective in December 1998. Amendment 9, which was based on the 1996 stock assessment, was implemented on February 24, 1999. This amendment increased minimum size limits on five species, created new bag limits, and limited longline catches to certain species. This was effective February 24, 1999. Amendment 10 which addressed the habitat requirements of the Magnuson-Stevens Act was approved on June 3, 1999. This Amendment identified essential fish habitat for species in the snapper grouper complex and established essential fish habitat-habitat areas of particular concern for this management unit. Amendment 11 addressed non-habitat requirements (MSY, OY, rebuilding timeframe, overfishing evaluation) of the Magnuson-Stevens Act. It was approved on May 19, 1999, but it has not yet been published. Amendment 12 which deals with red porgy trip limits, bag limits, and size limits became effective August 29, 2000. There are 73 species in the snapper-grouper complex. The South Atlantic Fishery Management Council considers 15 of these to be overfished, 7 not overfished, and 51 of unknown status. Data are reviewed each year by the Snapper Grouper Assessment Group and periodically by the Snapper-Grouper AP.

APPENDIX B

The following individuals currently serve as North Carolina representatives on the various Councils, Commissions, Technical Committees, and Advisory Committees that pertain to the various plans included in this FMP.

Atlantic States Marine Fisheries Commission

The ASMFC policy making body is represented by the Fisheries Director (Preston P. Pate, Jr.), a Legislative and Governor's Appointee (Damon Tatum). The following are the other DMF staff and citizen advisors currently working on individual FMPs and are subject to change.

| | |
|------------------------------|--|
| American Eel | DMF--Katy West Citizen advisors-- Robert Hutchinson |
| Atlantic Croaker | DMF--Louis Daniel, Tina Moore Citizen advisors--Norm Bradford, Brian Shepard |
| Atlantic Menhaden | DMF--Trish Murphey Citizen advisors--Jule Wheatley |
| Atlantic Striped Bass | DMF--Jason Dilday Citizen advisors-- |
| Atlantic Sturgeon | DMF--Fritz Rohde Citizen advisors--none |
| Black Sea Bass | DMF--Red Munden, Louis Daniel, Fritz Rohde Citizen advisors--Rita Merritt, Mac Currin, Jimmy Ruhle, Dennis Spitsbergen |

| | |
|---------------------------------|--|
| Bluefish | DMF--Red Munden, Louis Daniel, Beth Burns Citizen advisors--Bob Eakes, Bill Foster |
| Red Drum | DMF--Louis Daniel, Lee Paramore Citizen advisors--Norm Bradford, William Wilkins |
| Scup | DMF--Red Munden Citizen advisors--Jimmy Ruhle, Dennis Spitsbergen |
| Shad & River Herring | DMF--Sara Winslow Citizen advisors--Billy Farmer, Lee Wynns |
| Sharks | DMF--Red Munden, Carter Watterson Citizen advisors--Unnamed |
| Spanish Mackerel | DMF--Louis Daniel, Randy Gregory Citizen advisors--Mac Currin, Rita Merritt, Rita Merritt, Carl Snow, Kurt Fickling, Rom Whitaker |
| Spiny Dogfish | DMF--Red Munden, Chris Batsavage, Tina Moore Citizen advisors--Dennis Spitsbergen, Jimmy Ruhle, Chris Hickman, Eddie Newman |
| Spotted Seatrout | DMF--Louis Daniel, Beth Burns Citizen advisors--none |
| Summer Flounder | DMF--Red Munden, Carter Watterson Citizen advisors--Dennis Spitsbergen, Jimmy Ruhle, Henry Daniels, Sherrill Styron |
| Tautog | DMF--Richard Wong Citizen advisors--None |
| Weakfish | DMF--Louis Daniel, Lee Paramore Citizen advisors--Leslie Daniels, Billy Farmer |

Mid-Atlantic Fishery Management Council

Voting members on the mid-Atlantic Council from North Carolina include Red Munden (DMF Director's designee), Jimmy Ruhle (appointed), and Dennis Spitsbergen (appointed). The following are the other DMF staff and citizen advisors currently working on individual FMPs and are subject to change.

| | | |
|-----------------|----------------------|------------------------|
| Monkfish | DMF--Chris Batsavage | Citizen advisors--none |
|-----------------|----------------------|------------------------|

South Atlantic Fishery Management Council

Voting members on the South Atlantic Council from North Carolina include Louis Daniel (DMF Director's designee), Rita Merritt (appointed), and Mac Currin

(appointed). The following are the other DMF staff and citizen advisors currently working on individual FMPs and are subject to change.

Dolphin/Wahoo

DMF--John Schoolfield
Citizen advisors--Paul Dunn, Joe Shute, Dewey Hemilright,
Harris Huddle, Jeff Jugan

King Mackerel

DMF--Randy Gregory
Citizen advisors--Paul Dunn, Jodie Gay, Andy High

Reef Fishes

DMF--Fritz Rohde
Citizen advisors--Jodie Gay, Jimmy Harker, Danny Hooks,
Jeff Oden