

A Summary of Views Presented during
the South Atlantic Regional Roundtable

**Improving
Federal Fisheries Management
in the
South Atlantic Region**

The H. John Heinz III Center
for Science, Economics and the Environment

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BACKGROUND

ABOUT THE HEINZ CENTER

Founded in 1995 to carry on the work of Senator John Heinz, The H. John Heinz III Center for Science, Economics and the Environment is a nonpartisan, nonprofit institution dedicated to improving the scientific and economic foundation for environmental policy through multisectoral collaboration. Focusing on issues that are likely to confront policymakers within two to five years, the Center fosters collaboration among industry, environmental organizations, academia, and government in each of its program areas and projects. It uses the best scientific and economic analyses to develop viable options for solving problems, and its findings and recommendations are widely disseminated to public and private sector decision makers, the scientific community, and the public.

ABOUT THE MANAGING U.S. MARINE FISHERIES PROGRAM

Initiated in March 1998, The Heinz Center's Managing U.S. Marine Fisheries program seeks to increase the effectiveness of U.S. fisheries management. A primary goal of the program is to identify present concerns and possible courses of action for key decisionmakers, especially as Congress considers amendments to the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA).

In addition to numerous documents and reports, the program has produced the book *Fishing Grounds: Defining a New Era for American Fisheries Management*, which is available through Island Press. Susan Hanna, Professor of Marine Economics at Oregon State University, led the program with support from Assistant Manager Heather Blough. Four senior advisors—Captain R. Barry Fisher of Midwater Trawlers Cooperative, D. Douglas Hopkins of Environmental Defense, Dr. Andrew A. Rosenberg of the National Marine Fisheries Service, and Professor Michael Orbach of Duke University—provided oversight to the program.

ABOUT THE REGIONAL ROUNDTABLE SERIES

The Heinz Center hosted eight roundtable meetings in the federal fishery management council regions between July and October 1999. The purpose of the meetings was to identify problems the councils have encountered in implementing the 1996 amendments to the MSFCMA and to solicit input on how fisheries management can be made more effective in the regions. The original intent was to focus on improvements to the system that could be made through congressional reauthorization. Participants also offered many ideas about administrative actions that the National Marine Fisheries Service (NMFS) and the regional fishery management councils could take to make the system work better.

The roundtable meetings were limited to a small number of participants to keep the discussion focused and productive. They were attended by industry members, environmentalists, fishery managers and scientists that participate in the fishery management system at the regional level. Assistance in identifying qualified participants was provided by council directors and leadership of the Marine Fish Conservation Network. Participants were familiar with the full range of issues facing their region, but practical limitations did not allow for representation from every fishery, gear type, or other specific interest group.

The booklet *Reauthorizing the Magnuson-Stevens Fishery Conservation and Management Act: A Handbook and Discussion Guide for Regional Fishery Management Councils*, produced during the first phase of The Heinz Center's Managing U.S. Marine Fisheries program, provided background for the regional roundtable discussions.

Each roundtable lasted two days and was guided by a similar agenda. The first day was devoted to discussing the implementation of four mandates added to the MSFCMA in 1996, including: (1) end overfishing and rebuild overfished stocks; (2) minimize bycatch; (3) identify and protect essential fish habitat; and (4) minimize adverse economic impacts to fishing communities. The second day's discussions were focused on identifying how the fisheries management system can be improved. They too were divided into four segments, including (1) background conditions; (2) decisionmaking; (3) management implementation and administration; and (4) "new" management tools.

ABOUT THE REGIONAL ROUNDTABLE REPORTS

Each roundtable discussion was recorded and transcribed by a professional reporting service. We then produced summary minutes from each transcript, which participants reviewed for accuracy. We incorporated these materials into a report for each region, which summarizes the discussions and outlines the participants' recommendations.

The Heinz Center's goal for the reports was to capture as much information as possible about federal fishery management problems and potential solutions in the various regions. Throughout the roundtable discussions, the knowledgeable and diverse participants identified many specific concerns and options for improving federal fisheries management. We did not attempt to evaluate, prioritize, or forge consensus on the issues and recommendations that were raised. We did, however, note areas of strong agreement or dissent. Although participants did not necessarily characterize proposed actions as most appropriate for Congress, NMFS, or the councils, we did so in the final reports in the interest of making the information more useful.

In addition to the regional reports, we produced a national summary, *Improving Federal Fisheries Management: A National Report*, which synthesizes information derived from the regional roundtable series. The handbook, regional and national reports, and other documents stemming from The Center's fisheries program are available online at www.heinzctr.org.

This report was prepared by Susan Hanna and Heather Blough. It summarizes views presented during the South Atlantic Regional Roundtable held October 5-6 in Charleston, South Carolina.

ROUNDTABLE PARTICIPANTS

DISCUSSANTS

Carol S. Ballew	National Marine Fisheries Service, Southeast Region
Don DeMaria	Commercial fisherman; research assistant
Christopher C. Koenig	Research Biologist, Institute for Fishery Resource Ecology, National Marine Fisheries Service/Florida State University Cooperative
Robert K. Mahood	Executive Director, South Atlantic Fishery Management Council
John V. Merriner	National Marine Fisheries Service, Southeast Fishery Science Center, Beaufort Laboratory
Michael K. Orbach	Professor of Marine Affairs and Policy Director, Duke Marine Laboratory
Robert R. Pelosi	Florida fisheries advocate
Doug Rader	Environmental Defense
Susan Shipman	Georgia Department of Natural Resources, Coastal Resources Division; Council Member, South Atlantic Fishery Management Council
Jack Sobel	Director, Ecosystem Protection, Center for Marine Conservation; Chair, Marine Reserve Advisory Panel, South Atlantic Fishery Management Council
Bill Wickers	C/V <i>Linda D.</i> ; Key West Charter Boat Association

INVITED, UNABLE TO ATTEND

Ken Hinman	President, National Coalition for Marine Conservation
Miles Philip Mackaness	Commercial fisheries
Pete Moffitt	Chair, South Atlantic Fishery Management Council
Robert Muller	Florida Department of Environmental Protection
Gene Proulx	National Marine Fisheries Service, Southeast Regional Office, Law Enforcement

FACILITATOR:	Susan Hanna
ASSISTANT:	Heather Blough
RECORDER:	Barbara F. Curry

EXECUTIVE SUMMARY

The South Atlantic Fishery Management Council manages fisheries in federal waters off the coasts of North Carolina, South Carolina, Georgia, and Florida. There are 86 fish stocks under its direct authority, and it shares management of an additional 10 stocks with the Gulf Council. The Council is tasked with implementing new fisheries management provisions added to the Magnuson-Stevens Fishery Conservation and Management Act through the Sustainable Fisheries Act of 1996. These provisions relate to ending overfishing and rebuilding overfished fisheries, minimizing bycatch, identifying and protecting essential fish habitat, and minimizing adverse impacts to fishing communities.

The Heinz Center convened a roundtable October 5-6, 1999, in Charleston, South Carolina, to identify problems the South Atlantic Council is experiencing in implementing these new provisions and to solicit recommendations to improve fisheries management in the region. Participants included members of industry, environmental organizations, academia, and government agencies.

Roundtable participants recognized the following as primary problems the South Atlantic Council faces in meeting the new provisions:

- insufficient attention to ecological relationships;
- inadequate data and information;
- confusion related to how to balance tradeoffs associated with minimizing bycatch;
- difficulty dealing with bycatch in multispecies fisheries;
- insufficient focus on incentive-based management mechanisms;
- mixed signals related to essential fish habitat goals;
- poor coordination between coastal zone and fishery management; and
- poor understanding of the intent of the communities provision.

The participants offered the following general recommendations for change:

- improve scientific understanding of ecosystem-level interactions;
- collect more and better biological, ecological, social and economic data;
- better coordinate coastal zone and fishery management;
- integrate state and federal fishing capacity goals;
- better acknowledge and manage the recreational sector;
- improve communication of scientific information;
- increase the efficiency of the fishery management plan review and implementation process;
- clarify national policies and improve communication between NMFS headquarters and regional offices;

- strengthen enforcement; and
- increase funding.

The two-day discussions that led to the identification of these problems and recommendations are summarized in the following pages. A more comprehensive list of detailed actions that could be taken by Congress, the National Marine Fisheries Service and the South Atlantic Council to improve fisheries management in the region is included in the back of this report.

THE SOUTH ATLANTIC REGIONAL CONTEXT

The South Atlantic Fishery Management Council manages fisheries in federal waters off the coasts of North Carolina, South Carolina, and Georgia. It shares jurisdiction for fisheries off the coast of Florida with the Gulf of Mexico Fishery Management Council. The South Atlantic Council has 13 voting members—one from the National Marine Fisheries Service, 4 from state fishery agencies, and 8 public members appointed by the Secretary of Commerce. Participants perceive fishery management under the Council as inherently positive and results-oriented.

Through the distribution and transport of marine organisms, the Gulf Stream plays an important role in the status of the South Atlantic region's fisheries and makes coordination with the Gulf Council essential. The strong relationship between fisheries and inshore estuarine habitat makes coordination between state and federal resource managers critical as well. The jurisdiction and authority of the South Atlantic Council overlaps with those of many others, including NMFS, the Atlantic States Marine Fisheries Commission (ASMFC), and the state governments of South Carolina, North Carolina, Georgia, and Florida. All are subject to varying laws, including the MSFCMA, the Atlantic Coastal Fisheries Cooperative Management Act (Atlantic Coastal Act), and state statutes and regulations.

A number of endangered species, including sea turtles, right whales, and other marine mammals, are located in the South Atlantic region. Some deep-water fish species, such as the Nassau grouper, are extremely rare and are candidates for listing under the Endangered Species Act.

The South Atlantic region supports a variety of fisheries and habitats, which has created a diversified commercial fishing industry. Fishing occurs in a number of different habitats and areas throughout the year. Commercial fishing operations are generally small scale, high-value, "boutique" operations, characterized by strong cultural ties to associated communities. The ports of Beaufort, North Carolina, and Key West, Florida, are the highest producing in the South Atlantic region. In 1998, the greatest volume—about 80 million pounds—was landed at Beaufort, while landings at Key West had the highest value—almost \$45 million.¹

Participants in the region's recreational fisheries have historically been permitted to sell their catch, and many do to supplement their income. Participants of this sector outnumber those in the commercial sector, making it difficult for the Council to conform to federal fishery management, which generally focuses on regulating the commercial sector. Intense population growth in the South Atlantic region exacerbates already burgeoning allocation conflicts between the commercial and recreational sectors and, along with the high aesthetic value of fisheries in

¹ NMFS. 1999. *Fisheries of the United States, 1998*. Current Fishery Statistics No. 9800, U.S. Department of Commerce, National Oceanic and Atmospheric Administration.

the region, leads to conflicts between recreational fishermen and nonconsumptive use groups, such as dive operations.

IMPLEMENTING PROVISIONS OF THE 1996 SUSTAINABLE FISHERIES ACT

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The 1996 Sustainable Fisheries Act (SFA) added new provisions to the Magnuson-Stevens Fishery Conservation and Management Act. Four of these provisions contain significant new requirements for the South Atlantic Fishery Management Council that relate to ending overfishing and rebuilding overfished stocks, minimizing bycatch, identifying and protecting essential fish habitat, and minimizing adverse impacts on fishing communities. Participants' views on challenges the region faces in implementing these provisions are summarized below.

1. OVERFISHING/REBUILDING

Background

The MSFCMA's overfishing/rebuilding provision requires that fishery management plans contain measurement criteria for overfishing, actions to prevent overfishing, and plans to rebuild overfished stocks. The Act defines both "overfishing" and "overfished" as "a rate or level of fishing mortality that jeopardizes the capacity of a fishery to produce the maximum sustainable yield on a continuing basis" (16 U.S.C. 1802(29)).

In addition to the 10 fish stocks for which it shares authority with the Gulf Council, the South Atlantic Council is directly responsible for 86 stocks. Of these, 15 are overfished and 71 are of unknown status. The stocks are managed under five fishery management plans: South Atlantic Golden Crab; South Atlantic Shrimp; South Atlantic Snapper-Grouper; Atlantic Coast Red Drum; and Coral, Coral Reefs, and Live/Hard Bottom Habitats of the South Atlantic Region.²

Implementation Issues

Overfishing Definition: Participants stated that combining the terms "overfished" and "overfishing" under the same definition is confusing. In addition, they indicated that the new definition clearly departs from that previously developed by the Council but allows for no transition period from the use of the old definition to the new. Some participants contended that such inconsistencies in management are traumatic to the entire system—confusing to fishermen, managers, and the public. For example, they said that characterizing the status of each species according to new, stricter overfishing criteria caused some stocks that were previously believed to be rebuilding to become defined as overfished. But others supported the application of stricter criteria, indicating that many fisheries were permitted to remain in a chronic depleted state under prior criteria.

² NMFS. 1999. Report to Congress: Status of Fisheries of the United States. October

Reliance on Maximum Sustainable Yield: Some participants indicated that the current approach is not appropriate for species with complex reproductive strategies, such as many in the snapper-grouper complex that change sex. They argued that, to be effective, fishery management must better account for ecological linkages and effects and the role that those factors play in overfishing. Some participants believe that the principal challenge in fishery management is the identification of an ecologically derived, management-friendly alternative to maximum sustainable yield.

Participants said the South Atlantic Council is interested in further examining the potential for ecosystem-based management in the southeast region. One proposal involves managing keystone or indicator species, such as grouper, that exhibit the characteristics of a whole suite of species within an ecosystem. Those who support this alternative noted that by identifying and protecting keystone species the Council could also protect other species about which they have less information. Some participants observed that ecosystem-based management presents a fundamental change in thinking and will require more support and leadership from NMFS.

Delays in Approval: Participants said that failure of NMFS to approve plans and amendments in a timely fashion provides an obstacle to rebuilding. Some believe that agency delays often result from giving too much weight to the socioeconomic factors associated with rebuilding. They encouraged managers to consider the long-term socioeconomic benefits associated with recovering fisheries, as well as the short-term negative socioeconomic impacts sometimes associated with rebuilding plans.

Monitoring and Evaluation: Participants agreed that a monitoring and assessment framework must be established to measure the Council's progress in meeting overfishing and rebuilding requirements. They indicated that resources for developing and implementing such a framework are needed. Some suggested that recruitment indices could be developed to gauge the success of management decisions.

Sustaining Rebuilt Fisheries: Participants expressed concerns about whether the Council is prepared to sustain fisheries once they are recovered. They pointed out that this will require an understanding of why a stock was overfished, as well as a willingness and ability to reduce capacity in spite of intense lobbying that will occur as the public begins to see the results of successful rebuilding plans. Some questioned whether the Council is ready for this struggle at present. One participant proposed that the Council severely limit the gear and user groups that contributed to the overfished status of fisheries, but others noted that the scientific information necessary to make such determinations is far from adequate.

Federal/State Coordination: Participants noted that the management of estuarine areas outside the Council's jurisdiction will also be critical to the long-term success of fishery rebuilding plans. They believe that coordination with the states will be key, particularly with regard to protecting essential fish habitat.

Research and Data Needs: Participants indicated that the Council does not have the data necessary to meet the overfishing or rebuilding requirements of this provision. They said basic assessment information is lacking on many species, and the information that does exist is generally three to five years old. They also noted that obtaining more and better data will be expensive. While NMFS allows other criteria to be applied in the absence of data, some participants found fault with the agency’s unwillingness to accept spawning potential ratio as an appropriate proxy for maximum sustainable yield. They suggested that the adoption of some proxies endorsed by the agency, such as a measure of a period of relative stability in a fishery, may cause the Council to lose credibility with the fishing public.

Some participants perceive the increased reliance on maximum sustainable yield as moving fishery management farther away from a system that allows managers to recognize and incorporate uncertainty in their decisions. They suggested that the Council should manage for inadequate information, noting that managing fishery resources at the edge in such a variable environment is a dangerous practice. Most participants would support the installation and application of a strong, prudent, precautionary, science-based definition of overfishing, but find that determining how to do that under present law is frustrating.

Participants said that additional research should focus on identifying critical spawning habitats and examining the social structures of fish populations, natural mortality rates, fish movements, larval recruitment, age structures of populations, and reproduction. Some suggested that closed areas may be necessary to acquire much of this information, as well as data on the effects of fishing.

2. BYCATCH

Background

The MSFCMA’s bycatch provision requires that fishery management plans establish standardized bycatch reporting methodology, as well as measures to minimize bycatch and bycatch mortality. The Act defines “bycatch” as “fish which are harvested in a fishery, but which are not sold or kept for personal use, [including] economic discards and regulatory discards.” The legislative definition excludes “fish released alive under a recreational catch and release fishery management program” (16 U.S.C. 1802(2)).

The South Atlantic Council has addressed bycatch to a fair extent. It collaborated with the Gulf Council, the ASMFC, and the four states to develop bycatch reduction devices that would create percentage reductions in some fisheries—an effort that resulted in established protocol for on-board bycatch devices. The Council requires the use of turtle excluder devices in the shrimp trawl fishery and prohibits drift gill nets. It permits traps in the spiny lobster fishery but not in the reef fish fishery. Fish pots, which are believed to be cleaner gear, are still used to capture black sea bass.

Implementation Issues

Balancing Tradeoffs: Some participants believe that the costs of required bycatch devices have begun to exceed the benefits. They questioned how much farther the Council will be required to go to minimize bycatch “to the extent practicable.” For example, as stocks recover, participants wondered if bycatch requirements will be reduced in importance because there are a sufficient number of fish to withstand the additional pressure. Some participants are concerned that, as stocks begin to recover, pressure to increase fishing will result in the increased bycatch of young recruits. Others are concerned that lengthy time horizons will prevent those complying with fishing restrictions from ever realizing the benefits of these measures.

Monitoring and Evaluation: Participants noted that monitoring and evaluating the impact and value of bycatch reduction devices and regulations are essential parts of the process. Some said that if actions taken to reduce bycatch of a particular stock, such as mackerel, are successful, the subsequent conservation benefits of those actions should be recognized, for example, by increasing the total allowable catch in the directed fishery. The Council needs more support from NMFS in this area.

Managing Bycatch in Multispecies Fisheries: Participants commented that bycatch is very difficult to deal with in the multispecies reef fish fishery, where fishermen are unable to target specific species. Some noted that three protected species are contained within this complex, and the mortality rate of those caught as bycatch is greatly magnified by the deep depths. Some suggested marine protected area management as a tool for addressing bycatch and other difficulties associated with multispecies complexes.

Recreational Bycatch: Some participants suggested the need to address recreational hook-and-line bycatch, which they believe can be substantial in some fisheries. They pointed out that this is particularly important in deep-water reef fisheries, where discard mortality is believed to be high and very significant for species whose growth and reproductive characteristics make them vulnerable to exploitation.

Bycatch as Bait: Some participants noted that bycatch caught in fish pots are sometimes used as bait, rather than turned loose, and that many commercial and recreational fishermen target undersized fish for this same purpose in spite of minimum size restrictions. They emphasized that these fish should be better accounted for in estimates of fishing mortality.

Regulatory Discards: Regulating fisheries with size and bag limits creates excessive bycatch and discards, according to some participants, who contended that bycatch will continue to grow as these measures become more restrictive.

Full Retention: Some participants suggested that full retention should be considered as a means to deal with bycatch, indicating that it would be easier to enforce and would provide managers with an accurate accounting of bycatch that could be applied toward aggregate quotas. They noted that the difficulties of discard mortality, as well as the depth and latitude aggregation characteristics of species, would make such a system especially applicable in the South Atlantic region.

Role of Incentives: Many participants questioned whether the appropriate incentives exist within the fishery management system to effect the cultural change necessary to reduce bycatch in the region's fisheries. They observed that there still exist pockets of resistance against bycatch reduction, where individuals are reluctant to change their fishing practices or patterns even slightly to achieve bycatch goals. While some participants attributed this to lack of a conservation ethic, others suggested that it is a rational response to perverse incentives. They noted the importance of understanding the sociology of the system and developing management measures focused on manipulating behavior. Some suggested that a system of marine protected areas may be required to counter resistance to conservation-oriented management measures. Others suggested that a system of property rights, such as individual fishing quotas, may provide fishermen with the necessary conservation incentive by increasing their stake in the future status of the resource.

Research and Data Needs: Although the states are collecting some bycatch data, participants observed that very little is being done overall, and that this lack of data has made it virtually impossible to incorporate mortality estimates associated with bycatch into stock assessments. They said, at present, NMFS uses figures that vary by species, fishery, season, and depth based on general characterizations, but even general characterizations are lacking for some species. Some participants criticized NMFS for lacking sufficient commitment to continue collecting bycatch data in the shrimp and other trawl fisheries, but others blamed the inadequacy of these efforts on industry resistance.

Participants noted that improving the quantity and quality of bycatch and discard information will require a standardized reporting infrastructure. While some participants favored soliciting bycatch information through logbook reporting requirements, others questioned the reliability of industry-generated information and argued that on-board observations will be necessary. Other research needs include more and better data on mortality associated with catch-and-release fishing for most reef species and information on the ecological consequences of bycatch and discards.

3. ESSENTIAL FISH HABITAT

Background

The MSFCMA's habitat provision requires that fishery management plans describe and identify essential fish habitat, minimize fishing effects on habitat, and identify actions to encourage

conservation and enhancement of habitat. The Act defines “essential fish habitat” as “those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity” (16 U.S.C. 1802(10)).

The South Atlantic Council has been proactively involved with habitat issues since the early 1980s. It prohibited certain trawl gear and fish traps based on evidence of damage to live bottom habitats; designated the Oculina Bank as a protected area; prohibited the harvest of live rock for the aquarium trade; developed policies on ocean dumping, oil and gas development, and submerged aquatic vegetation; and established a multi-sector Habitat Advisory Panel—all before the 1996 essential fish habitat requirements were legislated. In response to these requirements, the Council has identified and designated both essential fish habitat and habitat areas of particular concern. Participants noted that essential fish habitat has been defined rather broadly, but that they expect the definition to narrow as more information becomes available.

Implementation Issues

Direct Harvest of Essential Fish Habitat: Some participants said that NMFS’s rejection of the Council’s plan to prohibit the direct harvest of *Sargassum*, identified as essential fish habitat, sends a confusing message regarding the goal of this provision. They believe it will be difficult for the Council to challenge nonfishing activities that adversely affect essential fish habitat if directed harvest of *Sargassum* is permitted to continue. The direct harvest of soft corals, designated as essential fish habitat for snapper-grouper, also persists in the southern part of the region. The Council has expressed its intent to address this as well and is examining the possibility of converting it, and possibly the *Sargassum* fishery, into a mariculture operation. This was previously done for live rock and appears to be quite successful.

Fishing Impacts: Participants said that, although there has been significant pressure to meet requirements to identify and mitigate the impacts of fishing gear on essential fish habitat, the limited time schedule and scant information made it difficult for the Council to meet this objective. They noted that the Council has addressed the impacts of bottom-tending gear, such as trawls, on hard-bottom habitat to some extent, but indicated that much more research is needed, particularly with respect to trawl gear.

Non-Fishing Impacts: Participants pointed out that many adverse impacts to essential fish habitat result from habitat-alteration activities taking place in state waters outside the South Atlantic Council’s jurisdiction. They said about 75 percent of all habitat-alteration permits in the United States apply to habitat in the South Atlantic region. Because of the significance of these impacts, they believe the Council will never be able to make much progress toward protecting essential fish habitat without coordination between coastal zone and fishery managers at the federal, state, and local levels. While some participants asserted that state/federal cooperation on habitat issues is strong, others countered that it is almost nonexistent and presents a major challenge.

Some participants suggested that coordination could be improved by formalizing communication networks among NMFS, the Army Corps of Engineers, and coastal management programs. Others proposed legislating state and federal consistency by amending the Atlantic Coastal Act to include a habitat standard similar to the 1996 essential fish habitat provision. Some participants said that North Carolina legislation (1997) serves as a good precedent. It requires state agencies responsible for coastal zone and fishery management issues, along with their respective citizen rulemaking commissions, to work together to develop coastal habitat protection plans to enhance the value to coastal fisheries of each listed habitat type. Still others suggested that, ideally, the federal structure should be reorganized to combine fragmented coastal authorities under one agency. They noted that the political feasibility of such an action is poor, but could be improved with education and advocacy over time.

Participants pointed out that activities that threaten international waters also impact fisheries in the South Atlantic region. They said NMFS rejected the Sargasso Sea as a prospective habitat area of particular concern because it lies outside the U.S. exclusive economic zone. Because many federal actions and expenditures, including treaty negotiations, directly affect these waters, they recommended that the Council be authorized to engage in these debates.

Nonfishing Impact Consultations: Significant projects for consultation are brought to the attention of the South Atlantic Council through its Habitat Advisory Panel and through the NMFS regional office, which is required to deal with the permitting process. But participants said that, in the past, consultation has not been very effective in reducing adverse impacts from nonfishing activities. For example, they noted that findings by the Mid-Atlantic and South Atlantic Councils, the ASMFC, NMFS, U.S. Fish and Wildlife Service, and the North Carolina Marine Fisheries Commission that the Nucor Steel Mill proposal poses threats of significant damage have not been sufficient to convince authorities to require the completion of an environmental assessment. Some participants who believe the consultation process established by the MSFMCA is inadequate suggested that the Council's authority should be extended to regulating the anchoring of nonfishing vessels and recreational diving in essential fish habitat areas. Others suggested that best management practices should be required on land and that, at a minimum, efforts to educate people about land-use practices must be improved.

Research and Data Needs: Participants noted that to fully implement the essential fish habitat provision, the Council needs data on (1) the effects of fishing gear, particularly trawl gear, on habitat; (2) the ecological impacts of fish and invertebrate removals from marine systems, particularly reef systems; (3) the location of spawning aggregations, particularly historical areas; (4) the current distribution of active habitat and spawning nursery habitat for anadromous species; (5) the finer-scale distribution of habitat; (6) fish movements among habitats, both ontogenetically and seasonally; and (7) associations of various species with habitat, particularly reef habitat. They suggested that collaboration with industry could be useful in acquiring much of this information.

4. COMMUNITIES

Background

The MSFCMA's communities provision requires that the effects of management measures on fishery participants, fishing communities, and fisheries in adjacent areas be assessed. The Act defines "fishing community" as "a community which is substantially dependent on or substantially engaged in the harvest or processing of fishery resources to meet social and economic needs, and includes fishing vessel owners, operators, and crew and United States fish processors that are based in such community" (16 U.S.C. 1802(16)).

Implementation Issues

Intent: Many participants questioned how the communities provision differs from other legislative requirements to assess the social and economic impacts of regulations, noting that it does not appear to add any new dimension to analyses that have been required all along.

Definition of "Fishing Communities:" Participants indicated that the geographic-based definition of "fishing communities" provided by the National Standard Guidelines does not apply well to fishing communities in the South Atlantic region, which are primarily recreational and not always contained within specific geographical areas. They said that even commercial fishing communities can no longer be recognized geographically because increasing land values are causing them to disperse. One noted that by any social scientific standard, the term "community," as it applies to participation or interest in fishing, whether consumptive or not, will be broader than a geographic region, identifying groups of people who share feelings and beliefs and circumstances in a particular industry or any kind of common interest.

Accountability: Participants suggested that the South Atlantic Council should use this provision to hold other councils and the Secretary accountable for including in fishery management plans an assessment of the effects of regulatory measures on fishing communities in the South Atlantic region. Some pointed out that conflicts between regional charter and private boat fisheries have resulted from the displacement of fishermen affected by stringent highly migratory species regulations. Others noted that disparate regulations for the same species in the Gulf and South Atlantic regions have affected the marketability of fish. Still others suggested that the poor condition of some stocks in the South Atlantic is a result of the Gulf Council's failure to implement adequate conservation measures for shared species.

Research and Data Needs: Participants noted that the South Atlantic Council has employed both an economist and an anthropologist to aid in meeting social science requirements but that little definitive information on fishing communities exists in the South Atlantic region. They asserted that annual requests for this information by the Council's Scientific and Statistical Committee have been left unfulfilled, that NMFS has never routinely produced the data

necessary to determine the community impacts of regulatory actions, and that independent efforts to do so have been both partial and variable. They specified that impediments to improving social science research include difficulty finding independent scientists interested in undertaking such work, a poorly designed U.S. Census, restrictive survey requirements provided by the Paperwork Reduction Act, and MSFCMA prohibitions on the collection of economic data.

Participants said that a systematic, ongoing, data collection, monitoring, and analysis program is needed to adequately fulfill the requirements of the communities provision. Some indicated that the Council would like to develop an in-house database that could be consulted as regulatory alternatives are developed and proposed on a case-by-case basis, but noted that it does not have the funding necessary to do so. Some participants emphasized the importance of understanding the full range of variables before making a regulatory decision, noting that biological data alone will never be able to provide fishery managers and policymakers with information on a preferred alternative. They noted that such choices are based on tradeoffs, many of which can only be determined and understood through social science research.

Participants identified numerous research needs. For example, the nonconsumptive value of fishery resources should be examined, and the economic benefits of sustaining populations of large fish in a healthy reef environment should be documented. Also, the migratory behavior of fishermen should be understood, but attempts to do so will be difficult in the absence of a uniform federal licensing system. Participants pointed out that recreational participation must be better accounted for to provide the Council with a more accurate picture of resource users and a better understanding of how coastal population growth affects resource status and allocation issues. They stated that information on recreational fisheries is severely inadequate at present, but is likely to improve as more rationalized state licensing structures develop. They strongly believe that the Atlantic Coastal Cooperative Statistics Program (ACCSP) has the potential to vastly improve capabilities but note that it will largely depend on the quality and quantity of state data and the states' ability to coordinate.

IMPROVING FISHERIES MANAGEMENT IN THE SOUTH ATLANTIC REGION

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Roundtable participants reviewed background conditions in the South Atlantic region's fisheries, existing decisionmaking and implementation processes, and possible new tools to identify administrative and legislative actions for improving fisheries management in the region.

1. BACKGROUND CONDITIONS

Present-day fisheries are a product of their management history. Regional roundtable participants identified the following background conditions as important factors influencing the current state of fisheries and fisheries management in the South Atlantic region. They also discussed how these conditions could be better addressed.

Coastal Development

Participants recognized that linkages between fisheries and coastal management practices are uniquely important in the South Atlantic region. Pressure from growing coastal populations is a critical background condition that defines land-use practices and the capacity of habitat to support the region's fisheries. They expressed concern that fisheries management is destined to fail unless the management of nearshore water quality, nearshore and offshore habitat, and direct fish harvest is better integrated.

Overcapacity

Participants said there is excess fishing capacity in the South Atlantic region. Even so, they noted, the recreational sector continues to expand. Some indicated that this expansion has increased support for limited-access programs within the commercial sector—a change in attitude from the past. But they acknowledged that limiting access to recreational fisheries is a highly controversial issue in the South Atlantic region. Some commented that marine recreational anglers are not even required to be licensed in the state of North Carolina. Participants believe that interstate coordination will be critical in the development of limited-access programs, particularly for the management of transboundary resources.

Data on recreational fisheries are generated by the Marine Recreational Fisheries Statistics Survey, which some participants said under-samples the fishing population and fails to provide a reliable count of catch or a comparable level of precision for catch estimates. They contended that this results in severely inadequate information on recreational fisheries, despite the importance of these fisheries in the South Atlantic region. Some participants criticized NMFS for its reluctance to examine how to improve the survey, which presents a tremendous credibility issue in the South Atlantic region.

Some participants suggested that the Council could best reduce capacity by removing speculative permits from the fishery, estimating that about 1,800 permits are inactive in the snapper-grouper fishery at present. Others proposed that to effectively address access and capacity managers must select tools, such as individual fishing quotas, that are capable of addressing the fundamental social and economic issues that drive access and capacity. Although, in general, the recreational sector strictly opposes rights-based management, some participants are hopeful that support will increase as overcapitalization further diminishes the pleasure of the recreational experience. Still others suggested that addressing capacity alone may not be possible or sufficient for some fisheries like snapper-grouper, which are focused on species with vulnerable life histories. They indicated that designating marine protected areas may be necessary.

Some participants noted that capacity and access issues do not necessarily have to be tied to license-limitation systems or individual quota management. They agreed that fishing effort must be addressed, but indicated that the preferred tool for doing so will depend on the specific objectives for each individual fishery. They said that identifying and establishing fishery management objectives is a critical first step noting that, once accomplished, management tools to achieve those objectives can be designed accordingly.

2. DECISIONMAKING

Decisionmaking is a key component of the fishery management system. All biological, ecological, social, and economic conditions in the fisheries are influenced by decisions made at the regional and federal levels that form the basis of fishery management plans and amendments. The discussion that follows summarizes the challenges and opportunities to improving decisionmaking identified by participants.

Council Operations

Participants agreed that the South Atlantic Council has shown remarkable success in making and implementing tough decisions to address controversial issues. They noted that regional participants view the Council as progressive and cooperative. Suggested areas of improvement focused on meeting processes, public input, and accountability.

Meeting Processes: Some participants noted that the common practice of videotaping council meetings has limited disruptive behavior to a great extent. Even so, others suggested that a level of decorum should be established at the onset of council meetings, particularly when issues are likely to be very contentious. In turn, council members should be required to treat those testifying with respect.

Public Input: In addition to council meetings, the South Atlantic Council receives public input through advisory panels, scoping meetings, and written remarks. Some participants emphasized

the importance of recording, transcribing, and distributing all public comments submitted to the Council on management issues, whether written or verbal. Others complained that the poor attendance of council members at scoping meetings sends a bad message to public participants who attend at great cost. To reduce frustration, they recommended that the purpose of these meetings as a fact-finding exercise be more clearly communicated to the public in advance, as well as the probability of who will be in attendance.

Accountability: Some participants noted that little accountability is required for statements made by witnesses at public hearings, making it difficult for council members to make decisions based on public testimony. They pointed to the enormous discrepancy between the scrutiny of public claims and those of scientists, and recommend that witnesses be required to support their statements with evidence or to take an oath prior to testifying. But other participants expressed their concern that measures taken to improve accountability may restrict the degree of public input provided to the Council by discouraging people from testifying. They argued that public input in any form is a critical part of the fishery management process and should be accepted by the Council without restriction, but not treated as a representative sample or opinion. They added that Council members, on the other hand, should be required to participate under oath because they have a responsibility to the public.

Council Appointment Process and Membership

As fishery constituents diversify, the ability to represent all interests presents a critical challenge in fishery management. Some participants pointed out that the regional fishery management councils have a poor track record in the area of broad-sector representation when compared to most boards that manage publicly held resources—a problem most attributed to the gubernatorial appointment process. Membership of the South Atlantic Council is not generally perceived to be problematic, but some participants offered suggestions for improvement.

Some participants would like to see improved environmental representation but recognized this as a two-way problem, noting that there are few environmentalists with the time, personal commitment, and knowledge necessary to be effective as council members are few. Others recommended that science be better represented in council decisions through the inclusion of regional NMFS scientists as nonvoting members of the Council. But others countered that, in theory, the NMFS Regional Administrator already represents science at the table. Some believe that, for reasons of reciprocity, ASMFC representatives should be elevated to voting status. Others believe that state representation should be weighted according to relative lengths of coastline, arguing that the 1:1 ratio at present does not allow for adequate representation of the state of Florida. Still others questioned whether state directors have undue influence over the entire council process and suggested that their participation presents a conflict of interest because they are tied to state agendas.

Use and Adequacy of Scientific Information

Biological Science and Information: Some participants believe that the Council is not making effective use of its Scientific and Statistical Committee, noting that the Council often takes action before the Committee has met. Others countered that the Committee's reports to advisory panel members are long, tedious, and overly technical. They see room for improvement in the communication of scientific information, both to the Council and the general public. In addition, they noted that discrepancies in scientific declarations of overfished status and on-the-water observations make it difficult for fishermen to understand the basis for scientific conclusions and cause the credibility of the scientific process to become suspect. In addition, basic assessment information is lacking for many species, and existing data are outdated.

It was noted that NMFS is currently preparing a document that outlines the suite of analytical approaches that are being used nationally in stock assessments, including information related to the assessment schedule for each species and how these schedules relate to life history characteristics. This document is intended to help clarify the scientific process, educate those interested about what types of analyses are being done, and improve the credibility of the system.

Many participants suggested that biological and ecological data collection and research could be enhanced through industry collaborations. They noted that, in addition to adding a degree of common sense to scientific models, incorporating industry input early on in the scientific process will increase buy-in to scientific advice. Some cautioned that anecdotal information must be incorporated in a systematic, scientific manner and suggested that industry members involved in collaborative programs should first be educated about scientific models and statistical sampling techniques. It was noted that the NMFS Southeast Regional Office is currently developing an educational initiative that will provide those interested the opportunity to visit the regional office and work with stock assessment models. The initiative's goal is to help the public better understand both the variables incorporated into stock assessment models and their relative significance. This effort may also lead to better ideas about how to scientifically incorporate anecdotal information into the process.

Some participants indicated that the complex life history of many species for which status is unknown makes it likely that the ecological consequences of mismanagement will be both severe and persistent. They suggested that large information gaps require the development of formal ecological risk assessments to identify the consequences of mismanagement and that, in critical cases, perhaps the burden of proof should be reversed so that information is required before fishing is permitted.

Social Science and Information: The social and economic information that informs fishery management decisions is also severely inadequate. Many participants perceive reluctance on the part of fishery managers and policymakers to commit limited resources to social and economic data collection. Some attributed this to the biological emphasis of NMFS, suggesting that

managers and policymakers should be further diversified to better balance scientific emphases. This group supported the current proposal to add about 80 social scientists to NMFS staff. They emphasized that, if achieved, it is important to remember that these staff would be facilitators—not producers—of information, and that a good system of data collection will still be required to meet social and economic mandates. The group noted that the NMFS Southeast Regional Office is currently recruiting a sociologist.

3. MANAGEMENT IMPLEMENTATION AND ADMINISTRATION

The implementation of management decisions is an important part of the fishery management process. Roundtable participants exchanged views on management implementation and identified problems with the current system and how the process could be improved. Their discussion is summarized below.

Council/Council Interface

The South Atlantic and Gulf council regions differ greatly in culture and, consequently, in views of marine resources and habitat. Participants believe this makes it difficult for the two councils to come to agreement on joint plans for shared fishery resources, such as mackerel. Some suggested that this problem could be resolved if each council managed stocks on its side of an established boundary line, but noted that the close relationship between the fisheries of the two regions and the Gulf Stream makes this alternative impractical. Others noted that the boundary delineation between the two regions divides the Keys ecosystem in half and should be redrawn, but they recognized that doing so is not likely to be politically feasible. To more effectively implement joint plans, still others suggested amending the MSFCMA to require only a majority vote of council members in both regions, rather than unanimous independent agreement on joint plans.

State/Federal Interface

Some participants noted that the existence of multiple authorities impedes fishery management in the South Atlantic region, creating constant debate over jurisdictions, animosity among states, and large time demands on those participating in the system at multiple levels. Others commented that the state-federal management interface has improved over the last decade, increasing consistency at the state and federal levels. Although the South Atlantic Council has close working relationships with each of the states and the ASMFC, participants recognized that the Council and the ASMFC have different charters and that states continue to hold their ground on some issues. For example, states have not uniformly adopted all 10 MSFCMA national standards or a similar level of habitat protection, and they resist having allocation philosophy dictated from the federal level.

Participants observed that some states integrate management with the federal system better than others. South Carolina, for example, automatically changes state fishery laws in relation to new council regulations, and there is currently a movement in North Carolina to take a similar approach. Georgia and Florida are also working to try to be more responsive to the system. Participants believe the ACCSP is an excellent partnership of states, and a good example of convergence on common goals and objectives. They recommended that this program be funded.

Council/NMFS Interface

Participants noted that territorial conflicts between the Council and NMFS have been greatly reduced over time as the Council has increased cooperative efforts with the agency. Still, some perceive NMFS as attempting to centralize fishery management decisionmaking. They believe this is a mistake, arguing that participants at the regional level know what is best for fisheries in the region. Others indicated that competing with the Gulf and Caribbean councils for the management, technical, and research support of the NMFS Southeast Regional Office is difficult.

Administrative Process

Participants believe that delays in the review of fishery management plans and amendments may present the biggest problem at present because they cause inexcusable time lags between the development and implementation of fishery regulations. Participants noted that often by the time regulations are finally implemented the Council is already developing new regulations to address changes that have occurred in the fishery. They indicated that this creates an absurd cycle, much confusion and a credibility problem for the Council. It is making it difficult for council members, staff, and the public to be aware of which regulations are in place at any given time. Delays in the administrative process were attributed to several different factors.

Some participants blamed unnecessary layers of review and suggested that regional directors should be permitted to sign off on noncontroversial decisions to improve timeliness in implementation. Supporters of this action noted that multiple levels of review have not been shown to produce better, more litigation-proof, or more risk-averse regulations.

Others suggested that fear of litigation is causing the NOAA General Counsel to provide unwanted policy advice that interferes with the natural order of the system, causing delays and confusion. Many perceive this new litigation-averse philosophy as superseding the risk-averse philosophy previously adopted by NMFS (presenting a key fundamental problem in the system). They noted that litigation is also diverting the attention of the Council's assigned legal support away from the region. Some suggested that legal assistance could be preserved through additional funding, but others suggested that the General Counsel should look outside the agency for assistance—for example, to cooperative agreements with the states.

Still others attributed administrative delays to internal disagreements between NMFS regions and headquarters on substantive issues of fishery policy. They pointed out that the legal opinion provided to the Council by regional attorneys sometimes differs from that of headquarters because communication within the agency is poor and the MSFCMA is open to different interpretations. By not taking a clear policy stance at the national level (with essential fish habitat for example), the agency makes it difficult for those in the regions to understand legal requirements. Some participants suggested that NMFS should establish and clearly communicate specific policies, accompanied by technical guidelines, so that all participants in the system understand the criteria by which something will be reviewed. But others believe that national review should focus only on equity and consistency, arguing that policy decisions should be left to participants at the regional level. Some believe that national oversight is needed to balance out interest representation, but others disagree.

Some participants suggested the need for a better fast-track system to implement emergency actions, noting that the NMFS Regional Administrator routinely reserves the Secretary's prerogative by voting against emergency actions, regardless of his view on a particular measure. They recommended that, to improve the flexibility and timeliness of emergency actions, the MSFCMA be amended to mandate the implementation of emergency actions when a council vote is unanimous, exclusive of the Regional Administrator's vote.

Participants observed that administrative delays are complicated by the opaqueness of the process, which makes it difficult to determine the status of a regulation at any given time or to understand where or why its implementation is being delayed. They noted that NMFS staff has the ability to track each plan or amendment issue through a Web-based tracking system and suggested that access to that system should be extended to the Council and the public.

It was noted that factors contributing to administrative delays are currently being addressed very deliberately through meetings and workshops attended by the councils, NMFS regional offices, and headquarters. Those participating in this effort are optimistic that timeliness will improve in the future.

Enforcement

Participants said that lack of enforcement is commonly perceived to be a major impediment to successful fishery management in the South Atlantic region. They noted that the high value of catch presents an incentive to break the rules, which are constantly changing and difficult for enforcement officers to follow. They suggested that the Council could help by simplifying existing regulations and better considering the advice of enforcement agents in the development of new plans and amendments.

Participants commented that limited resources generally cause NMFS to focus only on major violations and that few of those that are detected are prosecuted to the full extent. They said that

cases turned over to headquarters by the marine patrol or U.S. Coast Guard are often rejected or addressed with a mere “fix-it notice.” Some suggested that the present system of penalizing vessel owners, rather than violators, may be misdirected, and that penalties, currently set at the national level, are not strict enough to provide the necessary deterrent. Many participants believe that consistent violators should face permit revocations—sanctions that would provide the added benefit of reducing fishing effort. Some suggested that penalty schedules should be developed collaboratively by NOAA General Counsel, the South Atlantic Council, and regional law enforcement officers.

Some participants observed that the management of numerous resources under multiple laws intensifies competition for scarce enforcement funds in the South Atlantic region. They noted that more funding is needed, but they do not believe increases are likely. One participant said that expenses for the enforcement of regulations under the Marine Mammal Protection Act to minimize fishery and marine mammal interactions often wrongly accrue to the NMFS Office of Sustainable Fisheries, rather than the NMFS Office of Protected Resources.

Some participants recommended that enforcement priorities be examined. Others suggested that available funds could be stretched by developing cooperative enforcement agreements with the states, emphasizing that such agreements should not merely reassign state officers to enforcement of federal laws. The NMFS-South Carolina cooperative agreement—which provides additional officers and equipment to the field and involves the South Carolina attorney general’s office to litigate the minor cases—was proposed as a prototype. Innovative enforcement methodologies, such as vessel monitoring systems, were also recommended to increase the efficiency of enforcement. Some participants believe that individual fishing quota systems can help to reduce enforcement expenses by providing fishermen a vested interest in following the rules.

Funding

Participants agreed that the fishery management system is not adequately funded to carry out needed activities related to scientific research, monitoring and evaluation, and enforcement. Some pointed out that fisheries remain the only natural resource area constrained by administrative fee restrictions. They believe that these restrictions should be eliminated. Although the small-scale nature of fisheries in the South Atlantic region makes it unlikely that a system of fees would ever be implemented, many participants supported the Council’s option to do so. They noted that even more support for fee collection would be gained if the MSFCMA mandated that at least a portion of fees collected were to be returned to the region.

Integrating Management of Protected Species

Participants noted a need to integrate requirements under the MSFCMA and the Marine Mammal Protection Act. Because take-reduction plans developed by task forces established

under the Marine Mammal Protection Act will almost always have to be implemented within the fishery management process, participants stressed that coordination with the councils will be essential. Some noted that NMFS discourages the South Atlantic Council from addressing endangered species considerations in fishery management plans. They emphasized that requirements under the MSFCMA and Endangered Species Act must be better integrated as well.

Management of Highly Migratory Species

Participants noted that the South Atlantic Council wants authority over highly migratory species returned to regional councils on the Atlantic Coast. Many argued that the management of these species has been unsuccessful under NMFS and controlled by special interest groups—something that would not occur if management were in the hands of the councils. Others countered that authority over these stocks was taken away from the councils because they were unable to agree on a fishery management plan. They suggested that the new plan developed by NMFS should be given a chance to take effect before further action is taken. An alternate proposition raised involves establishing a council to deal solely with the management of highly migratory species. Some participants recommended eliminating restrictions in U.S. law that prohibit federal regulations from being more prohibitive than those developed under the International Commission for the Conservation of Atlantic Tunas.

4. “NEW” MANAGEMENT TOOLS

Several tools and approaches not traditionally used in fishery management have been receiving increased attention across the nation for their potential to address problems associated with traditional management, such as overfishing, overcapacity, bycatch, and habitat degradation. Roundtable participants discussed the regional application of each of the following fishery management tools and approaches.

Individual Fishing Quotas

The South Atlantic Council is recommending that the moratorium on the development of individual fishing quota programs be lifted. Most participants supported the Council’s recommendation, although some expressed concerns that relate primarily to fears regarding consolidation, equity in the initial allocation of quota shares, giving away rights to a public resource, and the ability of environmental groups to purchase—and hold—quota shares. Some noted that many of these issues can be addressed in program design and that, although quota may be purchased with the intent of leaving fish in the water, doing so would provide real benefits to both the resource and the fishery participants in the long run. Some participants recommended that the moratorium be lifted at least in those regions with strong support for the implementation of individual fishing quota programs, arguing that all regions should not be penalized for lack of consensus in some.

Marine Protected Areas

Status: Participants generally agreed that marine protected areas have the potential to address complex problems in the South Atlantic region related to insufficient data, multispecies management, and management of species with unique life history characteristics and complex habitat associations. The South Atlantic Council has been considering marine protected area management for almost a decade, but a previous attempt to implement protected area management in the reef fish fishery failed, largely because it did not involve the public early enough in the process. The Council has begun a deliberative process to examine the use of marine protected area management once again, this time with much public involvement in its design. Final determination on the issue is expected to take place in 2001-2002.

Process: Some participants suggested that moving slowly, along with public involvement and good science, will be key to the success of the Council's effort in implementing marine protected area management. Others cautioned against the false expectation of being able to achieve 100 percent consensus on the issue. They urged the Council to provide the public with fair input and discussion but, at some point, to recognize that resolving all differences of opinion will be impossible. In their opinion, attempting to do so will prohibit the decisionmaking process from moving forward. Some participants suggested that a federal mandate may be necessary to ensure that marine protected areas are designed and implemented in the region.

Because authority is fragmented across multiple jurisdictions, communication with other authorities will be critical to the success of marine protected area design and implementation. One participant recommended that NMFS develop a national policy for marine protected areas to create a coordinated plan of development among all government agencies involved in this ongoing process.

Siting: Some participants noted that managers will garner more support for selected sites if they take a common-sense approach that fishermen can easily understand. They believe that fishermen would not argue the benefits of closing spawning areas, for example, because they are generally familiar with those areas where spawning takes place, and the concept of protecting spawners is something that they can understand. Some participants were concerned that conflicts over siting will cause managers to establish marine protected areas in nonproductive areas embellished with artificial reefs. Although an easy way to side-step controversy, they said this would not provide the desired benefits that closures of productive grounds would provide. Others were concerned that managers will begin to site marine protected areas before adequately understanding the socioeconomic impacts associated with particular areas. They cautioned that managers must accomplish the appropriate research before going forward. Others countered that marine protected area management should not be subject to standards different from other fishery management tools.

Use Restrictions: Participants indicated that conflicts among various user groups in the South Atlantic region are likely to make the establishment of marine protected areas even more contentious. For example, recreational fishermen believe that it is unfair to close an area to fishing, while permitting diving activities to continue. Commercial fishermen believe that it is unfair to restrict commercial access, while allowing recreational fishing to occur. Some participants argued that marine protected areas should be closed only to those gear types that have been shown to adversely affect habitat, but others pointed out that a partial-access system would be very difficult to enforce.

Security: Some participants questioned whether the council system provides the necessary incentive to maintain marine protected areas for the amount of time necessary to achieve their full benefit. They asked how future council members can be prevented from simply changing the rules.

Integrating Coastal and Marine Resource Legislation and Management

Participants repeatedly stressed that management of coastal and open ocean resources must be integrated in order to be successful. Some suggested that a council-like system be established and charged with managing resources from coastal watersheds to the outward limits of the federal exclusive economic zone. Although states rights issues make such thinking very contentious, some believe that such integration is inevitable and subject to questions only as to when and how it will happen. They noted that the Coastal Zone Management Act, the National Estuary Program, and the MSFCMA, through its essential fish habitat provision, attempt to integrate management across topical areas, with respect to managing water quality, land use, and the direct harvest of fishery resources. Participants recommended that the South Atlantic region develop pilot studies related to further integrating coastal and marine resource management goals. Some suggested that the red drum fishery provides a good opportunity to develop a companion plan under the Atlantic Coastal Act and the MSFCMA.

Section 306 of the MSFCMA allows the North Pacific Council to delegate the management of fisheries in federal waters to the state of Alaska. Some participants recommended that this language be extended to all council regions. Others believe that the Council should instead be looking for ways to extend its authority inland, for example, to protect early life stages of important species inhabiting state waters.

Data Collection

Participants believe that data collection systems should be coordinated to the extent possible, and that partnerships should be encouraged. They noted that the ACCSP provides a framework for such coordination and integration and will be critical to the successful management of Atlantic coast fishery resources. This program has the support of all Atlantic

coastal states, the councils, and NMFS. Participants believe it must be funded and implemented. They also recommended that the reports to Congress on the Fishery Information System and Vessel Registration System be implemented.

Other recommendations to improve the collection of fishery data included requiring more detailed information on each area fished and implementing a juvenile index forecasting system in Florida's snapper-grouper fishery. Participants pointed out that while the ACCSP Data Committee could address the former, the latter requires support from NMFS and the Council, as well as a long-term funding commitment. It involves reef monitoring by dive teams trained by the Florida Department of Environmental Protection to do reef census and would result in a central information database that is accessible to both scientists and managers. It was observed that at present, 1,400 artificial reefs are monitored around the state, presenting a tremendous resource that the fishery management system overlooks.

ACTIONS RECOMMENDED BY ROUNDTABLE PARTICIPANTS

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General recommendations offered by roundtable participants to assist the South Atlantic Council with implementation of the 1996 amendments to the MSFCMA and to improve the effectiveness of fisheries management in the South Atlantic region include:

- Improve scientific understanding of ecosystem-level interactions.
- Collect more and better biological, ecological, social and economic data.
- Better coordinate coastal zone and fishery management.
- Integrate state and federal fishing capacity goals.
- Better acknowledge and manage the recreational sector.
- Improve communication of scientific information.
- Increase the efficiency of the fishery management plan review and implementation process.
- Clarify national policies and improve communication between NMFS headquarters and regional offices.
- Strengthen enforcement.
- Increase funding.

Many specific actions to implement these recommendations were identified by participants throughout the roundtable discussion. Those with apparent support of the majority are listed below. Although participants did not necessarily characterize proposed actions as most appropriate for Congress, NMFS, or the councils, we have done so here in the interest of making the information more useful. A more detailed discussion of the issues leading to these recommendations can be found in earlier sections of this report.

1. WHAT CONGRESS CAN DO

- Fund biological, ecological, social, and economic data collection and analysis.
- Fund the Atlantic Coastal Cooperative Statistics Program.
- Eliminate statutory prohibitions on the collection of economic data.
- Fund legislative mandates of the MSFCMA.
- Clarify fishery management goals.
- Do not change management standards each time the MSFCMA is reauthorized.
- Provide a mechanism to reconcile state and federal fishery management goals, standards, and requirements .
- Mandate the promulgation of emergency regulations or interim measures to address the emergency if the Council votes unanimously to do so, exclusive of the NMFS Regional Administrator.
- Provide a mechanism to facilitate cross-council agreement on joint plans.
- Incorporate enforcement funding into the MSFCMA.

- Fund cooperative state/federal enforcement agreements.
- Build funding for routine monitoring and evaluation into the MSFCMA.

2. WHAT THE NATIONAL MARINE FISHERIES SERVICE CAN DO

- Expand social science data collection and analysis.
- Encourage the participation of states and Sea Grant in social science data collection and research.
- Employ more social science staff in regions and headquarters.
- Collect more and better biological and ecological data.
- Develop and implement cooperative research programs.
- Implement the Atlantic Coastal Cooperative Statistics Program.
- Improve the Marine Recreational Fishery Statistical Survey.
- Re-examine funding priorities.
- Clarify agency policies.
- Improve communication between NMFS headquarters and regional offices.
- Maintain consistency in management approach.
- Improve communication and collaboration with coastal zone managers.
- Look for ways to simplify the documentation process and reduce delays.
- Provide the councils and the public access to the Web-based tracking system for fishery management plans and amendments.
- Penalize fishery violations more severely.
- Prosecute fishery violators to the full extent of the law.
- Develop cooperative state/federal enforcement programs.
- Examine innovative enforcement tools.
- Promote monitoring and evaluation.
- Focus research on developing ecological approaches to management.

3. WHAT THE SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL CAN DO

- Develop pilot studies that address state/federal integration at a regional scale.
- Better acknowledge and manage the recreational sector.
- Develop programs to reduce fishing capacity.
- Develop limited-entry programs.
- Better consider the practicalities of enforcement in fishery management plans and amendments.
- Develop a framework for monitoring and evaluation.
- Monitor and evaluate progress in meeting fishery management goals.
- Consider marine protected areas as an ecological approach to management.