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IMPLEMENTATION OF THE SUSTAINABLE FISHERIES ACT AND THE REAUTHORIZATION OF THE MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT

OVERSIGHT HEARING

BEFORE THE

SUBCOMMITTEE ON FISHERIES CONSERVATION, WILDLIFE AND OCEANS

OF THE

COMMITTEE ON RESOURCES
U.S. HOUSE OF REPRESENTATIVES

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OVERSIGHT HEARING ON THE IMPLEMENTATION OF THE SUSTAINABLE FISHERIES ACT AND THE REAUTHORIZATION OF THE MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT

Wednesday, April 4, 2001
U.S. House of Representatives
Subcommittee on Fisheries Conservation, Wildlife and Oceans
Committee on Resources
Washington, DC

The Subcommittee met, pursuant to call, at 2:03 p.m. in Room 1334, Longworth House Office Building, Hon. Wayne Gilchrest [Chairman of the Subcommittee] presiding.

STATEMENT OF THE HONORABLE WAYNE T. GILCHREST, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MARYLAND

Mr. GILCHREST. The Subcommittee on Fisheries, Wildlife and Oceans will come to order. Welcome, everyone, to the hearing. This is one of many hearings that we will have dealing with the extraordinarily complex Magnuson-Stevens Act, and I hope it will be productive. I want everyone to know all of the interest groups—that throughout the coming hearings, everyone will be represented. We received a number of letters yesterday and today from a number of groups that wanted to remind us of their interest, and I hope they don't feel slighted.

The Coastal Conservation Association of Maryland, Virginia and North Carolina has sent us a letter. They would like to have input in this process. Mr. Pallone has sent us a letter on this issue dealing with the Magnuson-Stevens Act and recreational fishing; the Recreational Fishing Alliance, I believe maybe the constituent. At any rate, as we hold these hearings, throughout process, everyone that has any interest in this issue, and I know there are many, they will be thoroughly represented, and their voice will be heard.

As most of you know, in 1996, Congress passed the Sustainable Fisheries Act, which contained a number of substantial changes to the Magnuson-Stevens Act, including provisions dealing with the identification and rebuilding of overfished fisheries; the description and identification of essential fish habitat; the minimization of bycatch to the extent practicable; a study on the use and effects of

individual fishing quotas (IFQs); the clarification of the community development quota program; the modification of the Fishery Management Council procedures; the establishment of a fishing capacity reduction program and the establishment of a Pacific Insular Area Fishing Agreement procedure.

The Magnuson-Stevens Act now needs to be reauthorized again. This hearing is the first in a series of hearings which will focus on how the 1996 amendments have been implemented and the issues Congress should address in this effort to extend this landmark fishery conservation law. As the new Chairman of this Subcommittee, I am committed, as are the staff and other Members and, I am sure, an extraordinary number of people from around this country, to thoroughly, carefully scrutinize and examine every aspect and the very fabric of this act.

This hearing, which is round one—I never was really a boxing fan, but that is, I guess, an apt description based on some of the dialogue and discussion and exchange of information we have had in the preceding days. This hearing, which is round one, will hopefully frame and clarify some of the issues that the Subcommittee should look at in more detail during the process.

I look forward to hearing from the witnesses today, and we will take your message to heart and deal with it effectively and also continue a dialogue with all of the witnesses, I hope, over a long period of time.

[The prepared statement of Mr. Gilchrest follows:]

Statement of The Honorable Wayne Gilchrest, Chairman, Subcommittee on Fisheries Conservation, Wildlife and Oceans

I would like to welcome our witnesses to the first of what I hope will be a number of hearings on the important topic of the reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act.

As most of you know, in 1996, Congress passed the Sustainable Fisheries Act which contained a number of substantial changes to the Magnuson-Stevens Act including provisions dealing with: the identification and rebuilding of overfished fisheries; the description and identification of Essential Fish Habitat; the minimization of bycatch (to the extent practicable); a study on the use and effects of Individual Fishing Quotas (IFQs); the clarification of the Community Development Quota (CDQ) program; the modification of the Fishery Management Council procedures; the establishment of a fishing capacity reduction program; and the creation of a Pacific Insular Area Fishing Agreement procedure.

The Magnuson-Stevens Act now needs to be reauthorized again. This hearing is the first in a series of hearings which will focus on how the 1996 amendments have been implemented and the issues Congress should address in this effort to extend this landmark fishery conservation law. As the new Chairman of this Subcommittee, I am committed to carefully examine every aspect and the very fabric of this Act.

This hearing, which is round one, will hopefully frame and clarify some of the issues that this Subcommittee should look at in more detail during this process.

I look forward to hearing from our witnesses today and in subsequent Magnuson reauthorization hearings.

Mr. GILCHREST. I will ask unanimous consent that the ranking member, Mr. Underwood's, statement be submitted for the record.

[The prepared statement of Mr. Underwood follows:]

Statement of The Honorable Robert Underwood, a Delegate to Congress from Guam

Mr. Chairman, thank you for holding this hearing today on the reauthorization of the Magnuson–Stevens Fishery Conservation and Management Act.

The last reauthorization of this law, the Sustainable Fisheries Act passed in 1996, made broad changes to almost every aspect of our fisheries management system from the requirements to reduce bycatch and end overfishing to the new requirements to protect fisheries habitat. Much of this effort was driven by a decline of fish stocks in many areas of the country and a desire to ensure that fisheries disasters like that which occurred in New England in the mid–90's would not occur elsewhere.

Without question, the implementation of these new provisions was a challenge for both the National Marine Fisheries Service and the Fishery Management Councils. The lack of adequate scientific data with respect to stock abundances and habitat needs has made this task even more challenging, as well as somewhat frustrating for those on the outside who have an interest in seeing these stocks managed in a sustainable manner, be it the conservation community or the fishing industry.

Perhaps even more frustrating is the fact that while implementation has continued, the very fisheries disasters we sought to avoid have continued to occur. Some will argue that this is because the Sustainable Fisheries Act did not go far enough, and more changes are needed. Others will say that SFA has not had sufficient time to have an effect and we should not rush to impose more restrictions. Regardless, of your view on this, I think all sides will agree that we must have strong conservation and management of our fishery resources if they are to be truly sustainable.

To that end, I look forward to hearing from our witnesses today on how we can improve our fisheries management system and to bring an end to the cycle of fisheries disasters, whether through new legislation or better implementation of existing law. I also look forward to the hearings we will hold in the months to come, and pledge to work with you, Mr. Chairman, to ensure the long-term health of our fisheries and our fishing industry.

Mr. GILCHREST. I now recognize Mr. Abercrombie.

Mr. ABERCROMBIE. Thank you very much, Mr. Chairman. I have not usurped Mr. Underwood's position but rather, given the schedule of the Congress, there is a competing obligation he has which he could not avoid, and so, I am taking his place today with your kind permission. And I just want to tell you that it is a pleasure to be with you and particularly the gentleman from New Jersey as well. It is always a great opportunity to work together to accomplish good things, and thank you for entering Mr. Underwood's statement.

Mr. GILCHREST. Thank you, Mr. Abercrombie.

[The prepared statement of Mr. Abercrombie follows:]

Statement of The Honorable Neil Abercrombie, a Representative in Congress from the State of Hawaii

Thank you Mr. Chairman, and good morning. I want to stress how pleased I am that we are holding this hearing today, and that further hearings are planned, on the Magnuson–Stevens Act, the underpinning of our nation's fisheries management system. I would also like to thank the panel members for taking time out of their schedules to explain to us their views on the current fisheries management program and how we can improve it.

One of the original main purposes of the Magnuson–Stevens Act was the exclusion of foreign fishing fleets that were overharvesting and decimating our national resources. Obviously we were successful at achieving that goal, and we have now an extensive domestic fleet. I think it is important that we work as hard as we possibly can to implement and enforce laws and regulations that ensure the long term survival and sustainability of our fisheries stocks at levels that allow continued commercial and recreational harvests for our own fishermen.

It is important to remember in these hearings that though we may hear different views on how best to manage these precious commodities, we all want the same thing. We want fish that live and breed at levels high enough to sustain both themselves and this fishing industry. How we reach this goal seems to be the subject of most of our debates.

The need for adequate science cannot be ignored, nor can the need for fishermen to have the ability to continue to support themselves and their families. Conserva-

tionists fight for the rights of the fish not to be driven to extinction, and all viewpoints must admit that extinction would serve nobody's purpose.

This is an issue which in the past has been extremely divisive, but in this new Congress, with our emphasis on bipartisanship, I think it very important that we work together and keep our eyes on the end goal - to keep all commercial and recreational fisheries a sustainable part of our economy for the foreseeable future. To do that, we must have healthy resources. Thank you.

Mr. Saxton, opening statement?

Mr. Pallone?

STATEMENT OF HONORABLE FRANK PALLONE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. PALLONE. Yes, thank you, Mr. Chairman. I wanted to thank you for holding the hearing today on this important legislation on the Magnuson-Stevens Act, and I think it will probably be the most important issue that we consider in this Subcommittee this year.

The 1996 reauthorization of Magnuson-Stevens, the Sustainable Fisheries Act, was intended to ensure that our fisheries would be managed on a sustainable basis. Without a strong fishery resource, you can't have a strong fishing industry. To that end, it required that the councils reduce bycatch and end overfishing in the fisheries they manage. It also required them to identify the habitat these fisheries need to survive and thrive and reduce the impact that fishing had on these habitats.

Yet, Mr. Chairman, the latest Status of the Fisheries of the U.S. report from the Secretary indicates that more than 100 stocks of fish are considered to be overfished, and we continue to see fisheries decline and disasters declared. In turn, Federal tax dollars must be spent to provide disaster assistance and to buy out fishing vessels to reduce the fleet.

So what is happening? Were the provisions that we established in 1996 not strong enough, or have the councils and NMFS not been as diligent in their implementations as we believed they would be? Or is it, as some believe, too early in the process to determine the effectiveness of the Sustainable Fisheries Act? Clearly, we need to answer these questions if we are going to bring an end to fisheries disasters and the need for taxpayer-funded buyouts and bailouts.

Mr. Chairman, I think we also need to look at the deplorable status of our fisheries data. The Status of the Fisheries of the U.S. report indicates that there are more than 600 stocks for which the biomass is either unknown or undefined, thereby making it impossible to determine if the fishery is overfished. This should be of great concern. Also of concern for many in the fishing industry, I know, are numerous stocks that are considered to be overfished and are being managed with data that is 2, 3 or even 4 years old, perhaps even older, requiring quota restrictions that some feel are unnecessary.

We need to give serious consideration to what needs to be done to improve our data collection and restore the confidence of the fishing industry and the environmental community in the data we use to manage these resources. Now, again, Mr. Chairman, I want to thank you for holding this hearing. I know there are going to be others, and I really think this is a critical issue, as you know,

not only for New Jersey but for the rest of the nation as well. Thank you.

Mr. GILCHREST. Thank you, Mr. Pallone.

Our witnesses today are Dr. William Hogarth, acting assistant administrator for fisheries, National Marine Fisheries Service, National Oceanic and Atmospheric Administration from the Department of Commerce—welcome, Dr. Hogarth; Dr. James Gilford, Chairman, Mid-Atlantic Fishery Management Council—welcome, Dr. Gilford; Mr. Justin LeBlanc, vice-president of government relations, National Fisheries Institute—welcome; Mr. Lee Crockett, executive director, Marine Fish Conservation Network—welcome, Mr. Crockett; and Dr. Edward Houde, professor, University of Maryland Center for Environmental Science Chesapeake Biological Laboratory. Dr. Houde, thank you very much for your attendance here this afternoon.

We will begin with Dr. Hogarth.

STATEMENT OF DR. WILLIAM T. HOGARTH, ACTING ASSISTANT ADMINISTRATOR FOR FISHERIES, NATIONAL MARINE FISHERIES SERVICE, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATIVE, U.S. DEPARTMENT OF COMMERCE

Dr. HOGARTH. Thank you, Chairman Gilchrest, Members of the Subcommittee. I appreciate the opportunity to testify today on the reauthorization of the Magnuson-Stevens Fisheries Conservation and Management Act. I am Bill Hogarth, the Acting Assistant Administrator for Fisheries in the Department of Commerce.

Mr. GILCHREST. Dr. Hogarth, can you pull your microphone a little closer, please?

Dr. HOGARTH. Okay.

Mr. GILCHREST. Is it on?

Dr. HOGARTH. Is it on?

Mr. GILCHREST. Yes, it is on.

Dr. HOGARTH. Let me say up front that we feel that the future health of the nation's fisheries is anything but bleak. The U.S. consumers spent an estimated $52 billion for fishery products in 1999. The commercial marine fishery industry contributed $27 billion to our gross national product, while recreation fishermen spent $9 billion, which translates into more than $25 billion to the U.S. economy.

Mr. Chairman, we believe that these numbers will improve as we continue to meet conservation mandates under the Sustainable Fisheries Act (SFA) of 1996.

First today, I would like to update the Subcommittee about NOAA's fishery actions to implement three key conservation provisions in the SFA: overfishing, bycatch and essential fish habitat. NOAA Fisheries continues to address overfishing through improved conservation guidelines and establishing updated overfishing definitions for virtually all Federally-managed fisheries. We have worked closely with the Regional Fishery Management Councils to resolve overfishing criteria and their management, as well as, flexibility in the process, and we are moving ahead with new management programs.

I am pleased to report that we have seen tangible stock improvements in our 75 approved rebuilding plans. According to our most recent annual report to Congress on the status of fisheries in the U.S., the number of stocks with acceptable harvest rates and those that are not overfished both increased last year. We expect this trend to continue, and in fact, by December of this year, we expect to have all 92 overfished stocks to have a rebuilding plan underway.

NOAA Fisheries and the councils are also making major progress at reducing bycatch. In the Gulf of Mexico and in the South Atlantic Fish-Shrimp Trawl Fishery, fishermen now use bycatch reduction devices which have resulted in a decline in finfish bycatch level even up to about 50 to 60 percent in red snapper bycatch in the Gulf. NOAA Fisheries continues to work closely with the industry through the Gulf and South Atlantic Foundation in research on fishing gear to reduce bycatch.

We have also identified and described the essential fish habitat in all 40 existing fishery management plans. However, three major issues have emerged since we began implementing the essential fish habitat (EFH) provision. First, a number of parties have asked why the EFH designations appear to be so expansive. Second, some environmental and fishing groups believe NOAA Fisheries and the councils have not gone far enough to minimize fishing impacts of EFH. And third, a coalition of nonfishing industries have expressed concerns about the consultation process with Federal agencies.

Mr. Chairman, I address these three issues in my written testimony, and I would be happy to answer any questions today. In fact, we have a GAO report which was released last year which says to date, there is little evidence that the consultation process has adversely affected planned projects or that the broad designations have resulted in the most valuable habitats being overlooked. They looked specifically at the Southeast Region of nine projects and showed that none of them had caused any delay in any projects and that they were being implemented as Congress had intended.

The SFA also provided for many annual and one-time reports. NOAA Fisheries has submitted four annual reports to Congress on the Status of Fisheries of the U.S. In addition, the National Research Council (NRC) prepared a report on individual fishery quotas and the community development quota program in Western Alaska, and the United States Atlantic States Marine Fisheries Commission coordinated a report on the Government's role in controlling harvesting capacity.

Another report prepared by the NRC, Sustaining Marine Fisheries, examined a wide range of management systems and evaluated their potential contribution to sustainable fisheries. The agency has completed several SFA-mandated reports and helped shape and direct some critical scientific missions.

As you know, NOAA Fisheries completes a large volume of rulemaking and makes determinations on any given action under six statutes and three executive orders, including the National Environmental Policy Act and the Regulatory Flexibility Act. Many of these determinations open the agency to judicial challenge. We have initiated an agency-wide project to make our decisions more

litigation-proof and to more fully take advantage of the decision making tools provided.

I would like to turn now to the Magnuson-Stevens Act reauthorization. As you know, we are in a new administration, and we have not had time to develop an official position on the reauthorization. However, I would like to touch on a few issues that the stakeholders have raised to us as we have been talking around the country. The fundamental benchmark of the SFA is provision of mandate and the elimination of overfishing in Federally-managed fisheries. Since issuing national standard guidelines in May 1998, NOAA Fisheries has been helping the councils find the needed flexibility to create overfishing definitions, but there is still some confusion, and there may need to be some clarification in this area.

The SFA also established a 4-year moratorium on the submission of new individual fishery quotas (IFQs) and mandated reports of both IFQs and community development quotas (CDQs.) These reports conclude that IFQs and CDQs have conservation and economic benefits and should be a management tool. However, concerns remain about their use.

Since Section 312 of the SFA provides for public and private partnerships and fishing capacity reduction programs, our efforts to implement these provisions have revealed some time-consuming complications that are discussed further in my testimony. The SFA also addresses the hardship associated with disaster relief in Section 312(a). The broad and flexible nature of the program have caused some of our constituents to raise questions about the criteria applied to the designation of a commercial fishery failure and a fishery resource disaster and the Federal and State Government process for approving funded activities.

Section 305(h) calls for the creation of a central registry system for limited access permits, the so-called lien registry. This provision continues to be the subject of stakeholder discussion and is being reviewed pending resolution of various issues associated with implementation. As for seabird protections, the Endangered Species Act is the primary statutory authority for addressing the incidental take of listed seabirds. Although the Magnuson-Stevens Act provides NOAA Fisheries with authority to reduce seabird incidental takes, there is no specific requirement, since seabirds are not identified as bycatch.

Finally, Mr. Chairman, in simplifying and tightening up the approval process for FMPs and amendments in 1996, the SFA inadvertently created two distinct review processes that resulted in timing discrepancies in regulatory actions. On occasion, the Secretary has had to make an approval decision of a plan or amendment without having the benefit of public comment or has been unable to return an inadequate plan immediately to the council for modification and timely approval.

In conclusion, NOAA Fisheries has made great strides in implementing the SFA, but we have a long way to go. I want to thank you for the opportunity to testify today and discuss the implementation and reauthorization. I look forward to working with you and other Members of the Committee on this and other fishery-related issues in the 107th Congress. I am prepared to respond to any questions you and the Members may have.

Thank you.

[The prepared statement of Dr. Hogarth follows:]

Statement of William T. Hogarth, Ph.D., Acting Assistant Administrator for Fisheries, National Marine Fisheries Service, U.S. Department of Commerce

Mr. Chairman and Members of the Subcommittee, thank you for inviting me to this hearing on reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). I am William T. Hogarth, the Acting Assistant Administrator for Fisheries in the National Oceanic and Atmospheric Administration/Department of Commerce. In your invitation of March 19, 2001, you indicated this initial hearing would focus on three items: (1) progress in implementing the 1996 Sustainable Fisheries Act (SFA) amendments; (2) reports mandated by the SFA; and, (3) some issues that our stakeholders have suggested be reviewed during the reauthorization process.

THE 1996 SFA AMENDMENTS: NEW DIRECTIONS IN U.S. FISHERIES POLICY

The Sustainable Fisheries Act (SFA) redirected U.S. fisheries policy in many important areas, but particularly away from promoting growth in the harvesting sector, toward conservation and sustainability of fisheries. NMFS and the regional fishery management councils have worked hard the last 4 years to implement those changes. Since 1996, NMFS has:

- established new overfishing definitions and thresholds, and developed detailed guidelines for implementation of national standard 1, as well as for the new national standards, in particular national standards 8 and 9 on impacts on communities and by-catch issues;
- placed much more emphasis on producing sound and fair regulatory economic and social impact assessments (some in response to Magnuson-Stevens Act mandates, and others pursuant to different laws);
- identified and described essential fish habitat (EFH) in all 40 existing fishery management plans;
- continued to promote and implement some form of limited entry in practically all Federally managed fisheries; and
- played an active role in the preparation of a number of reports (some of them annually while others just once) that help us monitor progress in meeting SFA goals and consider all the implications of complex and contentious policy issues.

I would like to describe in more detail our efforts to respond to three key provisions of the SFA that are critically significant in addressing long-term conservation goals: (1) overfishing, (2) bycatch, and (3) essential fish habitat. All three deal, directly or indirectly, with the management of fishing operations, and all of them place a priority on resource conservation. I use the word conservation in the broad sense to include conservation, protection, and/or rebuilding of directly targeted fish stocks, of fish and other marine life that is taken incidentally in fishing operations, and of the marine habitat that is vital to targeted stocks, protected species, and to all living marine resources.

Overfishing

The future health of the Nation's fisheries is anything but bleak, as some might have us believe. Although there is much work still to do, we have made great strides in establishing the framework to meet conservation mandates under the Magnuson-Stevens Act, and in implementing new management programs to ensure fisheries at sustainable levels in the future. The foundation for progress is now in place with the publication of revised guidelines for conservation and the establishment of updated overfishing definitions for virtually all Federally managed fisheries. Where differences have occurred regarding overfishing criteria and their measurement, we have worked with the Councils and others to overcome those differences and move ahead with new management programs.

We have seen tangible improvements in many stocks. Our annual report to Congress on the Status of Fisheries in the United States provides a snapshot of how the Nation's marine fisheries are faring and progress we have made in their management. We now have 75 approved rebuilding plans, of which 45 have been implemented in just the last 3 years. According to the latest report, the number of stocks with acceptable harvest rates and those that are not overfished both increased appreciably in the last year. In fact, nine stocks have been removed from the overfished list, and we expect many more will be similarly reclassified in the coming years. Rebuilding efforts will continue for many of these stocks until they reach maximum sustainable levels. Examples of Federally managed fisheries that have ex-

hibited substantial resource recovery are Northeast scallops and haddock, and King mackerel in the Southeast.

As I mentioned earlier, although progress has been made, we have much more work to do. While the number of stocks that are not overfished increased last year, the number of stocks that were found to be overfished increased significantly also. This may, at first, appear contradictory. However, most of the increase was not because of a sudden decline in those stocks, but resulted either from new overfishing definitions or new stock abundance data becoming available. As this data becomes available, the total number of stocks for which determinations can be made changes. For example, there were an additional 37 stocks found to be overfished in 2000. However, 32 of those were reclassified from unknown/undefined to overfished because new overfishing definitions or biological information became available. Increases in the number of overfished stocks are to be expected as we continue to transition to the higher standards of the SFA.

Before leaving this topic, I would point out that rebuilding overfished stocks is just one part of the management equation. The law requires us to consider the plight of the fishing industry and dependent communities as we make management decisions. With the additional funding that Congress has provided, we have expanded our efforts to collect necessary economic and social information, and have significantly improved our impact analyses. We have also revised our guidance in this area, and are working closely with Council and NMFS staffs to implement that guidance. During the current fiscal year, we will hold at least six workshops around the country to discuss the new guidance and help apply the guidance to regional issues. With the continued support of Congress, we hope in the near future to have comprehensive data bases, as well as analytical models and other techniques, to enable us to complete more thorough impact analyses for decisionmakers.

Bycatch Issues

The SFA added national standard 9, which stipulates that conservation and management measures shall minimize, to the extent practicable, bycatch and mortality associated with bycatch. Incidental harvests of finfish remain a major concern in the Gulf of Mexico shrimp trawl fishery where measures to combat this problem predated the SFA. In recent years, bycatch has become a national issue that affects many gear types, principally trawls and longlines, in a growing number of Federally managed fisheries.

We believe that NMFS and the Councils are making meaningful progress in dealing with bycatch, although the problem is highly specific to individual fisheries and gear types and, therefore, resists uniform solutions. In the Gulf of Mexico shrimp trawl fishery, regulations requiring the use of Bycatch Reduction Devices (BRDs) have been implemented progressively, with the result that bycatch levels of finfish, in particular red snapper, are declining. Regulations addressing bycatch problems have been instituted in many other Federally managed fisheries.

The agency has continued to support gear research that focuses on this problem. One example is NMFS-supported research on technical means to reduce seabird mortality in longline fisheries. This work has been applied domestically and in the 1999 FAO-sponsored International Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries.

Also of critical concern is the bycatch problem in a number of Federally managed fisheries involving incidental takings of protected species. In these situations, several laws may apply. Issues related to some seabirds fall under the Endangered Species Act and those related to turtles and marine mammals often are addressed by both the ESA and the Marine Mammal Protection Act (MMPA). In some cases, other laws such as the Migratory Bird Act apply. Examples abound, but the best known are sea turtles in the shrimp trawl and many finfish fisheries; seabirds in long-line fisheries; and, marine mammals in some commercial fisheries using various gear.

Essential Fish Habitat

The provisions addressing EFH in the 1996 SFA created new responsibilities for NMFS and the Councils. Section 303 (a) (7) requires that each fishery management plan describe and identify EFH and minimize to the extent practicable the adverse effects of fishing on EFH. In addition, the SFA requires that we identify other actions to encourage the conservation and enhancement of EFH for Federally managed fisheries. The SFA also assigned to the Secretary of Commerce the roles of consulting and coordinating with other Federal agencies with respect to actions that may adversely affect EFH. NMFS has heard both praise and concern from our constituents over the increased emphasis we are placing on habitat conservation to implement the EFH provisions of the SFA. We are making progress and are expanding research on identifying, protecting and understanding EFH which is hampered by

the limited available information about the habitat requirements of managed fish species.

The EFH provisions of the SFA provided important new tools for NMFS and the Councils to manage sustainable fisheries. By law, we now must ensure that our fishery management decisions consider the potential effects of fishing on the habitats needed by commercially and recreationally important species of fish for their basic life functions. Likewise, we must ensure that our recommendations to Federal and state agencies regarding non-fishing activities are focused on measures needed to conserve the habitats that support managed fisheries.

Three major issues have emerged regarding implementation of these EFH provisions. First, a number of parties have asked why the EFH designations appear to be so expansive. It is true that EFH designations encompass most of the coastal waters and EEZ. However, it is important to realize that a map of all currently identified EFH in U.S. waters comprises the aggregate of separate EFH designations for more than 700 managed species, each with 2 to 4 distinct life stages and seasonal differences in habitat requirements, and many with EFH designated as only bottom habitats or only surface waters. For individual species or life stages, EFH is generally a subset (often 50 to 70 percent) of the total available habitat. The specificity of EFH designations depends on the amount of information available. Much more scientific information is necessary to identify the type and quantity of habitats necessary to achieve a desired level of fish production, or even to specify which habitats contribute most to the growth, reproduction, and survival of the target species. NMFS is continuing to work with the Councils, scientific and research communities to revise and refine EFH designations as additional information becomes available.

Second, some environmental and fishing groups have said that NMFS and the Councils have not done enough to minimize the adverse impacts of fishing on EFH. Unfortunately, there is limited information to demonstrate a direct link between physical habitat disturbance from fishing gear and decreases in productivity, survival, or recruitment of managed fish species. Where sufficient information is available, NMFS and the Councils are incorporating measures into our management decisions to minimize the effects of fishing on EFH. In addition, NMFS is working in partnership with other agencies and institutions to conduct new research to improve our understanding of the effects of fishing on bottom habitats. NMFS and the Councils are also preparing new environmental impact statements for most of our FMPs to evaluate in detail the effects of fishing on EFH and a range of measures that could be taken to minimize adverse effects. NMFS also is organizing a symposium on the effects of fishing activities on benthic habitats, tentatively scheduled for early 2002.

Third, a coalition of non-fishing industries has expressed concern about the process for consultations between NMFS and other Federal agencies whose actions may adversely affect EFH. The EFH consultations and commenting provisions of the Magnuson-Stevens Act are the only existing mandate that requires Federal agencies to address specifically how proposed actions might affect the habitats needed by Federally managed fish species. To streamline the efforts and enhance efficiency, NMFS has strongly urged Federal agencies to wrap EFH consultations into existing environmental review procedures under other laws, and most consultations are being handled with that approach. Federal agencies are assessing the impacts of their actions on important fish habitats, and their decisions are responding to NMFS recommendations on how to avoid or minimize those impacts. NMFS considers this process a significant opportunity to provide scientific advice to other agencies and improve the management of sustainable fisheries.

REPORTS MANDATED BY THE SFA

Associated with these strengthened and new Magnuson-Stevens Act conservation objectives are many reporting requirements. There are two kinds of reports on which I would like to comment. First, there are annual reports that NMFS is required to prepare, for example, the annual reports to Congress on the Status of Fisheries of the United States, which we have now issued four times. The second type of report is typically a one-time study with broad policy implications. Examples include reports prepared by the National Research Council (NRC) on individual fishing quotas and the community development quota program in western Alaska, and a report coordinated by the Atlantic State Marine Fisheries Commission on the government's role in controlling harvesting capacity. We have completed and carefully considered all the reports and studies that were mandated by the SFA. The reports are all unique in that they deal with specific issues for different programmatic ends, but they have in common that they have served highly useful purposes and provided us substantial direction toward more sustainable fisheries.

The agency has completed other SFA-mandated reports that have helped shape and direct some critical scientific missions. The Fishery Research Plan has assisted in guiding and prioritizing our fisheries science programs, and the Fishery Ecosystem Management Study supported NMFS efforts to do the science required for this more comprehensive and holistic approach to management. Another report prepared by the NRC, Sustaining Marine Fisheries, examined a wide range of management systems, evaluating their potential contribution to sustainable fisheries. Increasingly, these studies advocate a broad view of how to deal with fisheries management issues. In addition, the agency has successfully completed reports on (1) bycatch and incidental harvest research, (2) peer-reviewed red snapper research and management, (3) stock-specific identification of salmon in ocean fisheries, and (4) harvest capacity reduction in New England fisheries.

Some one-time reports, such as the NRC studies of rights-based management systems, have enabled us to examine complex issues like individual fishing quotas (IFQs), through the eyes of outside experts and our commercial, recreational, and environmental constituencies. Still other reports, like the Federal Investment Study on the governmental role in the expansion and contraction of fish harvesting capacity, were valuable mainly because they concentrated on the implications and effects of government programs.

Finally, I think these mandated reports have helped us identify more clearly the scientific and technical issues that need additional study and further deliberation. An obvious example is rights-based management systems, which many agree involve sensitive issues. With the completion of the NRC report on IFQs, Sharing the Fish, NMFS and the Councils have a much better understanding of the economic and social issues that will have to be addressed as we develop a national policy on rights-based management systems. NMFS will continue its review of these and other management systems as it works toward sustainable fishing in all Federally managed fish stocks.

MAGNUSON-STEVENS ACT REAUTHORIZATION

The SFA formally reauthorized the Act through 1999. The Administration will be developing its position on Magnuson-Stevens Act reauthorization. Accordingly, we have established an internal process, including a designated working group, for soliciting inputs from the NMFS headquarters and field offices and from the eight Councils. Because of Native American interests in certain fisheries and their roles and responsibilities as co-managers of associated resources, our process for soliciting input will also include potentially affected tribal governments. As we move through the reauthorization process, NMFS will provide specific comments on these issues. The issues surrounding reauthorization of the Magnuson-Stevens Act are vitally important to those who are engaged in the fisheries.

We have heard from many of our constituents and the Councils regarding their concerns. Based on those discussions and our management experiences, the following is a list of issues that may be considered during the reauthorization process.

Overfishing Definitions and Thresholds: National Standard 1 and Section 304 (e)

A fundamental benchmark in the 1996 SFA is the provision that mandates elimination of overfishing in Federally managed fisheries. NMFS has devoted substantial time and effort since 1996 to create overfishing definitions and thresholds that conform with the Magnuson-Stevens Act mandates and can be applied to many different types of Federally managed fisheries.

We believe that we succeeded substantially in meeting this charge with the issuance in May 1998 of guidelines for implementing national standards, including national standard 1, which deals with the prevention of overfishing. We have worked and continue to work closely with all the Councils to help them implement these guidelines in their work on FMPs.

During this process, we received questions from fishermen, environmentalists and all our constituencies on new definitions and thresholds and our annual report on the status of stocks that applies these standards to about 900 distinct fisheries. Some are concerned about a perceived lack of flexibility in developing these definitions and associated management measures. Others feel that in moving from recruitment- to maximum sustainable yield-based definitions, we have effectively raised the conservation standard too high, unnecessarily depriving commercial and recreational users of fishing privileges.

Individual Fishing Quotas: Section 303 (d)

The SFA established a 4-year moratorium (to October 1, 2000) on submission of new IFQs and mandated reports on IFQs and CDQs, which were completed in 1998. These reports, conducted by the National Research Council (NRC), concluded that existing IFQs and CDQs generate conservation and economic benefits, including

mitigation of overcapacity, but that many fishing industry constituencies have concerns about their implications, in particular for small fishermen and fishing communities. The NRC report on IFQs, Sharing the Fish, recommended that IFQs be made available as one tool among others that the Councils could use if desired, and that the Congress and NMFS should develop policies on several related issues, such as consolidation and transferability of quota shares. Late last year, Congress extended the IFQ moratorium to October 1, 2002, but, in the interim, authorized two Councils to study and prepare for them. We will continue to work with the Councils, Congress and our constituents to make these tools available in a manner that is appropriate for the regions and stocks under consideration.

Fishing Capacity Reduction Program: Section 312 (b-e)

Government programs that buy out and thereby reduce overcapacity are another means of achieving a fundamental goal of the Magnuson-Stevens Act. Most of these buyouts have been funded with public resources, but another variety would include private sector participation through the payment by industry of fees to pay off the loans required to fund the buyouts. Such public and private buyout partnerships were provided for in the 1996 SFA Section 312 (b-e) provisions that detail the rules for the Fishing Capacity Reduction Program. However, efforts to implement these provisions have revealed concerns that those requirements may be too complicated and time-consuming, particularly with respect to changes in the relevant fishery management plans and the mandatory regulatory assessments.

Disaster Relief: Section 312 (a)

The resource downturns that are evident in so many of our Federally managed fisheries have caused hardships for many fishermen and their respective fishing communities. One SFA program that addresses this need and can also support conservation is fisheries disaster relief. Federal payments to fishing communities and industry groups have been made increasingly frequently under Section 312 (a), the SFA provisions that deal with Fisheries Disaster Relief. The program is much broader and more flexible than most, and some of our constituencies have raised questions about the criteria or standards that govern the designation of a commercial fishery failure and a fishery resource disaster, the use to which disaster relief funds are put, and the Federal and State governmental process for approving activities funded under Section 312 (a).

Central Registry System for Limited Access Permits: Section 305 (h)

The SFA in Section 305 (h) calls for the creation of a central registry system for limited access permits, the so-called lien registry. This provision continues to be the subject of discussions among stakeholders and is being reviewed pending resolution of various issues associated with implementation of the registry.

Seabirds and the Management of Bycatch

The ESA is the primary statutory authority for addressing the incidental catch of seabirds in fisheries that may potentially take an endangered seabird species. Although the Magnuson-Stevens Act provides NMFS with authority to implement measures to reduce seabird incidental takes, the Act does not specifically require the implementation of measures to reduce incidental catches of seabirds, since seabirds are not currently defined as bycatch. It should be noted, too, that the United States has agreed in 1999 to a United Nations Food and Agriculture Organization (FAO)-sponsored international plan of action to reduce seabird mortality in longline fisheries, and committed to develop a national plan to implement the FAO agreement.

Timeliness of the Management Review Process

In simplifying and tightening up the approval process for fishery management plans and amendments in 1996, the SFA created two distinct processes: the review process for plans and amendments, and the review and implementation process for regulations implementing those plans and amendments. This new system has resulted in timing discrepancies. On occasion, the Secretary has had to make an approval decision on a plan or amendment without having the benefit of public comment on the proposed regulations. Concerns have also been raised about the Secretary's inability to return an inadequate plan immediately to the Council, so that it can make changes and have the plan approved in a timely fashion.

CONCLUSION

Mr. Chairman, this concludes my testimony. Again, I want to thank you for the opportunity to testify today and discuss the implementation and reauthorization of the Magnuson-Stevens Act. The Administration looks forward to working with you and other Members on the Committee on this and other fisheries-related issues in

the 107th Congress. I am prepared to respond to any questions you and other Members of the Committee may have.

Mr. GILCHREST. Thank you, Dr. Hogarth.

Dr. Gilford?

STATEMENT OF DR. JAMES H. GILFORD, CHAIRMAN, MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

Mr. GILFORD. Thank you, Chairman Gilchrest.

I am here on behalf of the chairman of the eight Fisheries Management Councils. I want to thank you for the opportunity to present our views. The council chairmen believe that—

Mr. GILCHREST. Excuse me, Dr. Gilford. Some of our Members up here can't quite hear you, sir.

Mr. GILFORD. The council chairmen believe the Magnuson-Stevens Act, as amended in 1996, fundamentally is a good piece of legislation. We also believe it is working. Many of our most important fisheries are recovering, and we are seeing significant improvements in a majority of the overfished stocks which are under management. In the past year, winter flounder, white hake, American plaice and yellowtail flounder were removed from the National Marine Fisheries Service list of overfished fisheries. I anticipate that loligo squid, summer flounder and scup will likewise be removed from that list in the very near future, perhaps by the end of the year.

From the council chairmen's point of view, the changes suggested in our written testimony would serve to enhance and improve the act. Our testimony, incidentally, concerns only reauthorization issues on which the council chairmen have reached consensus. Some of the concerns that council chairmen recommend for consideration by the Committee are administrative, while others relate more directly to management measures. With respect to management matters, we recommend the following: resolve problems that are associated with MSY-based definition of overfishing. The council chairmen would very much appreciate the opportunity to work with the Subcommittee in seeking some resolution to that problem.

Secondly, modify the definition of essential fish habitat or provide specific guidance on how to use different types of data in defining and designating essential fish habitat. Third, give the councils authority to regulate vessels involved in nonfishing activities that adversely affect fisheries or essential fish habitat. Four, allow the councils greater latitude in specifying rebuilding periods for overfished stocks. Five, end the prohibition on the use of IFQs or ITQs, and allow the councils maximum flexibility in designing IFQ systems and setting fees to be charged for the initial allocations, first sale and leasing of IFQs and allow the councils discretionary authority to establish fees to help fund observer programs.

With respect to those items which relate more directly to administrative matters, we recommend the following: authorize locality pay for council members in the continental United States; authorize councils to receive funds or support from local, state and Federal agencies and nonprofit organizations; three, authorize councils to hold closed meetings for the purpose of reviewing research proposals; four, authorize the National Marine Fisheries Service to col-

lect economic, proprietary or confidential commercial or financial information relevant to the development of fishery management measures; five, mandate the National Marine Fisheries Service to consult with the relevant councils before disapproving fishery management plans, amendment and framework actions submitted by the councils for National Marine Fisheries Service approval; six, allow concurrent approval of plans and amendments as well as regulations and provide a 15-day disapproval process. Also, allow the councils the opportunity to resubmit responsive measures rather than submit a complete fisheries management plan or amendment as now required.

Seven, exclude the National Marine Fisheries Service regional administrators from voting on emergency or interim actions requested by the councils; and eight—

Mr. GILCHREST. Could you say that again? I am sorry; could you say that last—

Mr. GILFORD. The last one?

Mr. GILCHREST. Yes, sir.

Mr. GILFORD. Yes, sir. Exclude the National Marine Fisheries Service regional administrator from voting on emergency or interim actions requested by the councils. I will explain that later if you wish me to, sir.

Eight, expand cooperative State-Federal enforcement programs and consider establishing permanent funding for such programs.

There are four matters in addition to the council chairmen's recommendations that I hope the Subcommittee will consider, namely, one, a seat for the State of New York on the New England Fishery Management Council; two, eliminate the requirement of newspaper notifications of meetings; three, permit the direct transfer of council funds from the National Marine Fisheries Service; and lastly but most importantly mandate a mechanism to assure compatible state and Federal management measures for interjurisdictional stocks managed by both the Atlantic States Marine Fisheries Commission and the Mid-Atlantic and New England Fisheries Management Councils.

Thank you again for the opportunity to present the recommendations of the council chairmen for your consideration, and let me also make one last comment, and that is that the council chairmen are very appreciative of the support and the effort we have in working jointly with the National Marine Fisheries Service. They are very capable, competent and have a high degree of integrity. Nothing in our comments is meant to reflect differently.

Thank you.

[The prepared statement of Dr. Gilford follows:]

Statement of James H. Gilford, Ph.D., Chairman, Mid-Atlantic Fishery Management Council

On behalf of the other seven Council chairmen and myself, I thank the Members of the Subcommittee for the opportunity to present our views. First let me say the Council chairmen believe the Magnuson–Stevens Act as amended in 1996 is fundamentally a good piece of legislation and it is working. Many of our most important fisheries are recovering and we are seeing significant improvements in a majority of the overfished stocks under management. During the past year winter flounder, white hake, American plaice, yellowtail flounder were some of the species removed from NMFS' list of overfished fisheries. Loligo squid, summer flounder and scup should likewise be removed from that list by the end of this year. The changes I

am suggesting today are not substantial, but they will serve to enhance and improve the Act. The numbered points I make in this presentation concern only the reauthorization issues on which the Council chairmen reached consensus. The positions I will cover were developed in June 1999 and have been modified slightly since they were first presented to the Committee on Resources in July of 1999 by Joseph Brancaleone, then Chairman of the New England Fishery Management Council. These items are sequenced consistent with the Magnuson–Stevens Act's table of contents, and although numbered they do not reflect any prioritization convention. I will be glad to answer questions on any of the issues I am bringing before you on behalf of the Councils, or on issues of specific concern to the Mid–Atlantic Council.

1. Section 3(29) and Section 304(e) ... Redefine Overfishing

The chairmen believe there are a number of problems related to MSY-based definitions of overfishing. For example, data deficiencies may lead to inappropriate calculations of MSY, which in turn skew overfishing definitions. Ultimately, this could lead to unnecessary social and economic dislocation for fishermen who are subject to measures that are tied to stock rebuilding schedules skewed by unrealistic overfishing definitions. We would like to work with the Subcommittee in seeking solutions to our concerns as the reauthorization process proceeds.

2. Section 302(d) ... Council Member Compensation

The Act should specify that Council member compensation be based on the General Schedule that includes locality pay associated with the geographic locations of the Councils' offices. This action would provide for a more equitable salary compensation. Salaries of members serving in Alaska, the Caribbean, and Western Pacific are adjusted by a COLA. The salary of the Federal members of the Councils includes locality pay. The Department of Commerce has issued a legal opinion that prohibits Council members in the continental U.S. from receiving locality pay. Congressional action, therefore, is necessary.

3. Section 302(f)(4) and (7) ... Receipt of Funds from any State or Federal Government Organization

Currently Councils can receive funds only from the Department of Commerce, NOAA or NMFS. The Councils routinely work with other government organizations to support research, workshops, conferences, or to procure contractual services. In a number of cases, complex dual contacts, timely pass-throughs, and unnecessary administrative or grant oversight are required to complete the task. The Councils request a change that would give them authority to receive funds or support from local, state and other Federal government agencies and non-profit organizations. This would be consistent with Section 302 (f)(4) that requires the Administrator of General Services to provide support to the Councils.

4. Section 302(i)(3)1Al(ii) ... Review of Research Proposals

The Act should be amended to include a provision for the Councils to close meetings to the public for the purposes of reviewing research proposals. Some of the Councils now provide and administer funding to researchers and fishermen for data collection and other research purposes. The proposals submitted to the Councils for funding may contain proprietary information that the submitters do not want to make public for various reasons. It will be in the best interests of this process if the Councils have the ability to close meetings to consider these proposals.

5. Section 303(a)(7) ... Essential Fish Habitat

The 1996 Act required the Councils to identify and describe EFH, but gave little direction on how to designate EFH. The EFH definition, i.e., "those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity," allows for a broad interpretation. The EFH Interim Final Rule encouraged Councils to interpret data on relative abundance and distribution for the life history stages of each species in a risk-averse manner. This led to EFH designations that were criticized by some as too far-reaching. "If everything is designated as essential then nothing is essential," was a common criticism throughout the EFH designation process on both a national and regional scale. Either the EFH definition should be modified, or the guidance on how to use different types of data should be more specific.

6. Section 303(b) ... Regulating Non–Fishing Activities of Vessels

The Council chairmen recommend that Section 303(b) of the Act be amended to provide authority to Councils to regulate non-fishing activities by vessels that could adversely impact fisheries or essential fish habitat (EFH). One of the most damaging activities to such habitat is the anchoring of large vessels near habitat areas of particular concern (HAPC) and other EFH (e.g., coral reefs, etc.). When these

ships swing on the chain deployed for anchoring in 100 feet of water, 10 to 20 acres of bottom may be plowed up by the chain dragging over the bottom. Regulation of this type of activity by the Councils should be authorized.

7. Section 303(b)(7) ... Collection of Economic Data

The Magnuson–Stevens Act specifies the collection of biological, economic, and sociocultural data to meet specific objectives of the Act, and requires the fishery management councils to consider this information in their deliberations. However, Section 303(b)(7) specifically excludes the collection of economic data, and Section 402(a) precludes Councils from collecting "proprietary or confidential commercial or financial information." NMFS should not be precluded from collecting such proprietary information so long as it is treated as confidential information under Section 402. Without this economic data, multi disciplinary analyses of fishery management regulations are not possible, preventing NMFS and the Councils from satisfying National Standard 2: "... conservation and management measures shall be based upon the best scientific information...", National Standard 8: " ... to the extent practicable, minimize adverse economic impacts ...", and other requirements of the Act and the Regulatory Flexibility Act (RFA).

The chairmen recommend resolution of these inconsistencies by amending the Magnuson–Stevens Act to eliminate the restrictions on the collection of economic data. Amending Section 303(b)(7) by removing "other than economic data" would allow NMFS to require fish processors who first receive fish that are subject to a Federal fishery plan to submit economic data. Removing this current restriction will strengthen the ability of NMFS to collect necessary data, and eliminate the appearance of a contradiction in the law requiring economic analyses while simultaneously prohibiting the collection of economic data necessary for such analyses.

8. Section 303(d)(1) ... Rescinding the Congressional Prohibitions on IFQs or ITQs

Section 303(d)(1) of the Act prohibited a Council from submitting or the Secretary from approving an Individual Fishing Quota (IFQ) system before October 1, 2000. More recently, through the fiscal year 2001 Appropriation Act, this moratorium on IFQs/ITQs was extended for an additional two years. If the reauthorization process is completed in 2001, the Council chairmen support rescinding these provisions before the year 2002 deadline. If this does not occur, then the chairmen oppose extending the moratorium on IFQs/ITQs beyond 2002.

9. Section 303(d)(5) and Section 304(d)(2) ... Establishment of Fees

The Council chairmen are opposed to the imposition of fees that are not regional in nature and established by the Councils. However, we do support the National Academy of Sciences recommendation that Congressional action allow the Councils maximum flexibility in designing IFQ systems and allow flexibility in setting the fees to be charged for initial allocations, first sale and leasing of IFQs.

10. Section 304(a) ... FMP Review Program

The chairmen believe that NMFS, in its review of proposed plans, amendments and framework actions has failed to adequately communicate to the Councils perceived problems in a timely manner. We propose the inclusion of a mandate in the Act to require through an abbreviated rule-making process that NMFS consult with the Councils before disapproving fishery management plans, amendments, or framework actions submitted by the Councils for NMFS approval.

11. Section 304(a and b) ... Coordinated Review and Approval of Plans and their Amendments and Regulations

The Sustainable Fisheries Act (SFA) amended Sections 304(a) and (b) of the M–S Act to create separate sections for the review and approval of plans and amendments, and for the review and approval of regulations. Accordingly, the approval process for these two actions now proceeds on separate tracks, rather than concurrently. The SFA also deleted the 304(a) provision allowing disapproval or partial disapproval of an amendment within the first 15 days of transmission. The Council chairmen recommend modification of these provisions to include the original language allowing concurrent approval of plans and amendments as well as regulations and providing for the initial 15-day disapproval process. The Councils would also like the ability to resubmit responsive measures rather than having to submit a complete fishery management plan or amendment as is now required by subsection (4) of Section 304(a).

12. Section 304(e)(4)(A) ... Rebuilding Periods

The Councils should have greater latitude for specifying rebuilding periods than is provided under the National Standard Guidelines. Social and economic factors

should be given equal or greater consideration in determining schedules that result in the greatest overall net benefit to the Nation.

13. Section 305(c)(2)(A) ... NMFS Regional Administrator Emergency or Interim Action Vote

For the purpose of preserving the Secretary's authority to reject a Council's request for emergency or interim action, the NMFS Regional Administrator is currently instructed to cast a negative vote even if he/she supports the action. While we recognize the extreme sensitivity in recommending a change to the voting responsibilities of our partners in the National Marine Fisheries Service—we certainly do not wish to appear to be disparaging the Regional Administrators in any way—the Council chairmen believe that Congressional intent is being violated by this policy. We suggest a modification to the Act as follows (new language in bold):

(A) the Secretary shall promulgate emergency regulations or interim measures under paragraph (1) to address the emergency or overfishing if the Council, by unanimous vote of the members **(excluding the NMFS Regional Administrator)** who are voting members, requests the taking of such action; and

14. Section 311(a) ... Enforcement

The Council chairmen support the implementation of a cooperative state/Federal enforcement programs patterned after the NMFS/South Carolina enforcement cooperative agreement. We applaud the inclusion of fifteen million dollars in the 2001 NMFS budget to expand the program to other states. While it is not necessary to amend the Act to establish such programs it is consistent with the changes needed to enhance management under the Act to suggest to Congress that they consider establishing permanent funding for such cooperative state/Federal programs.

15. Section 313(a): see also Section 403 ... Observer Program

The chairmen reaffirm their support to give discretionary authority to the Councils to establish fees to help fund observer programs. This authority would be the same as granted to the North Pacific Council under Section 313 for observers.

16. Section 402(b)(1) and (2) ... Confidentiality of Information

Section 402 replaced and modified former Sections 303(d) and (e). The SFA replaced the word "statistics" with the word "information", expanded confidential protection for information submitted in compliance with the requirements of an FMP to information submitted in compliance with any requirement of the Act, and broadened the exceptions to confidentiality by allowing for disclosure in several new circumstances.

The following draft language clarifies the word "information" in 402(b)(1) and (2) by adding the same parenthetical used in (a), and deletes the provision about observer information. The revised section would read as follows (additions in bold):

(b) CONFIDENTIALITY OF INFORMATION.-

(1) Any information submitted to the Secretary by any person in compliance with any requirement under this Act **that would disclose proprietary or confidential commercial or financial information regarding fishing operations, or fish processing operations** shall be confidential information and shall not be disclosed, except ...

(2) The Secretary shall, by regulation, prescribe such procedures as may be necessary to preserve the confidentiality of information submitted in compliance with any requirement under this Act **that would disclose proprietary or confidential commercial or financial information regarding fishing operations or fish processing operations,** except that the Secretary may release or make public any such information in any aggregate or summary form which does not directly or indirectly disclose the identity or business of any person who submits such information. Nothing in this subsection shall be interpreted or construed to prevent the use for conservation and management purposes by the Secretary or with the approval of the Secretary, the Council, of any information submitted in compliance with any requirement or regulation under this Act or the use, release, or publication of bycatch information pursuant to paragraph (1)(E).

OTHER:

Bycatch Issues

There appears to be an inconsistent definition of bycatch, depending on geography. In the Atlantic, highly migratory species harvested in "catch and release fisheries" managed by the Secretary under 304(g) of the Magnuson Stevens Act or the Atlantic Tunas Convention Act are not considered bycatch, but in the Pacific they are. We suggest that highly migratory species in the Pacific, managed under a Western Pacific Council fishery management plan and tagged and released alive under

a scientific or recreational fishery tag and release program, should not be considered bycatch. Note that there also is an inconsistency between the Magnuson–Stevens Act definition of bycatch and the NMFS Bycatch Plan. The NMFS definition is much broader and includes marine mammals and birds and retention of non-target species. The Council chairmen prefer the Magnuson–Stevens Act definition. We also wish to retain turtles in the definition of "fish" because of their importance in every region and especially in past, and possibly future, fisheries pursued by indigenous peoples of the Western Pacific Region.

Mid-Atlantic Council Issues:

Section 302(a)(1)(A) ... Add New York to the New England Council

New York is a border state between the Mid–Atlantic and New England regions, just like North Carolina is a border state between the Mid–Atlantic and South Atlantic regions. Many fishery regulations divide New York state. Fishermen from the east end of Long Island fish in waters defined as southern New England and use New England fishing techniques. These fishermen target lobster, groundfish, black sea bass and tilefish, all Mid–Atlantic species. Fishermen from central and western Long Island fish in a more traditional Mid–Atlantic style and focus more on Mid–Atlantic species. The Mid–Atlantic regulated mesh area does not begin until one reaches the waters west of 72—30' west longitude. This has the effect of splitting New York. It puts a major part of the new York commercial fleet (Montauk, Greenport and Shinnecock) in the southern New England area, while the balance of the commercial fleet as well as the majority of recreational fishermen and fisheries are located in the waters west of 72—30'. It is recommended that voting membership on the New England Council be increased by two seats (state director and obligatory) to allow for the full representation of New York on the New England Fishery Management Council.

Section 302(i)(2)(c) ... Eliminate newspaper notification of meetings

Given today's communication technology, the requirement to notify the public regarding meetings using local newspapers in major fishing ports is unnecessary. Other means such as press releases, direct mailings, newsletters, e-mail broadcasts, and web page updates of activities and events, including Council meetings are far more effective in communicating with our target audience than a legal notice in a local newspaper. Moreover, it is a lot less costly to use today's digital highway than yesterday's byway. Hence, we support the elimination of this statutorily required method of communicating with the public.

Direct Transfer of Council Funds

Councils are often held hostage by the DOC and NOAA grants process. To avoid this process, and allow the Councils to operate is a more efficient and predictable manner, we recommend that Councils receive direct transfers of funding from NMFS rather than continue the burdensome grant process currently used.

Mr. Chairman, I thank you for this opportunity to comment on the Magnuson–Stevens Act reauthorization. As I mentioned earlier, I will be happy to answer questions or provide information about the positions taken by the Council chairmen.

Mr. GILCHREST. Thank you very much, Dr. Gilford.

Mr. LeBlanc?

STATEMENT OF JUSTIN LE BLANC, VICE PRESIDENT, GOVERNMENT RELATIONS, NATIONAL FISHERIES INSTITUTE

Mr. LEBLANC. Chairman Gilchrest, distinguished Members of the Subcommittee, on behalf of the more than 800 members of the National Fisheries Institute, I want to thank you for the opportunity to testify before you on the reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act.

The 1996 Sustainable Fisheries Act, as we all know, marked a tremendous redirection of our nation's fisheries policies. Considerable new burdens were placed on the regional fishery management councils and the National Marine Fisheries Service. Many sectors of the commercial fishing industry, including the NFI, supported many of the provisions enacted in the SFA. However, the imple-

mentation of these provisions by NMFS has revealed very serious problems with the act that need to be addressed.

Number one, the best scientific information available: national standard number two requires all FMPs to be based on the best scientific information available. In recent years, we have seen numerous examples of the agency's best available science being disproven by outside expertise, including the surf clam and ocean quahog fishery; scallop fishery; the wreckfish fishery in the South Atlantic, and now, there is new data with regard to scup.

The NFI believes that there are three things that could markedly improve the best scientific information available: independent peer review of NMFS' stock assessments; cooperative research programs; and equitable treatment of anecdotal information from both commercial and recreational sectors.

Number two, essential fish habitat: implementation of the EFH provisions by NMFS has been flawed. If everything is essential, then nothing is. If you attempt to protect everything, you will likely end up protecting nothing at all. The NMFS concept of habitat areas of particular concern is much more on target, and the authority to regulate the impacts of fishing activities should be focused on these areas, not the entire exclusive economic zone.

Number three, overfishing and rebuilding programs: current overfishing definitions and rebuilding goals fail to recognize that environmental conditions affect fisheries. In Understanding Fisheries Management, a sea grant manual recently re-released, the authors state: "Another aspect of carrying capacity is that it changes as environmental conditions change from year to year." The most obvious example of this is found in the brown shrimp fishery of the Gulf of Mexico. From 1980 to 1998, landings were as high as 193 million pounds and as low as 125 million pounds. Much of this variation can be attributed to salinity conditions in the marsh habitat used by very small shrimp. When conditions are good—that is, high salinity—there is more suitable habitat, and more young shrimp survive. When conditions are poor—low salinity—there is less suitable habitat, and fewer young shrimp survive.

Our concepts of overfishing; our definition of what is an overfished stock and our rebuilding targets need to be altered to recognize this variability.

Number four, observers: there has been a call by some for universal observer coverage in all U.S. fisheries. Observers can and do play a critical role in enhancing the scientific data for fishery management plans. Universal observer coverage, however, is not necessary; may be cost-prohibitive and poses potential safety threats, particularly on small vessels. In addition, we need to clarify the goals and objectives of observer programs before they are implemented. Are the observers on board to monitor bycatch, discard, species composition, landings or some combination of all these parameters? How will the fishery and the council and the National Marine Fisheries Service confirm that the data being collected by observers is meeting these goals and objectives and that the information is being incorporated into the management process?

Number five, cumulative impacts of regulatory decisions: national standard number eight requires NMFS to minimize the ad-

verse economic impacts of fishery conservation and management measures on fishing communities. All too often, however, the agency determines that the regulatory decision has no significant social or economic impact. In many of these cases, it is the most recent of a string of regulatory decisions that could well be the straw that breaks the camel's back. In fact, the General Accounting Office has recommended that NMFS consider secondary and cumulative impacts when it is meeting the obligations of national standard number eight.

The NFI believes, therefore, that the national standard should be amended to require the agency to consider cumulative economic and social impacts. Such analyses would not only assess the impacts of additional incremental regulations on a particular fishery but also how those regulatory decisions may impact other fisheries.

Number six, ecosystem management: while many fishermen have been urging NMFS to take into consideration the impacts of coastal development, pollution and other environmental changes on fisheries productivity and to adopt multispecies management systems, the sheer information needs of a comprehensive ecosystem management approach are overwhelming. Before ecosystem management can be implemented in any real sense, massive data gaps would need to be filled. The regional fishery management councils and NMFS are already overwhelmed with obligations under the SFA, and as the growing number of lawsuits filed against the agency reveal, are already severely limited in their ability to meet these obligations.

Comprehensive ecosystem based fisheries conservation and management would require a NMFS budget many times larger than is currently the case. To require such an approach would therefore result in essentially an unfunded mandate to the agency and, by proxy, to the user groups who simply do not have a thorough enough scientific understanding of marine ecosystems to know all of the variables that must be incorporated into ecosystem-based management.

Number seven and finally, the precautionary approach: the precautionary approach proposes that the less you know, the more conservative your approach. It sounds so good, so commonsensical, how can anyone oppose it? However, the simple description of the precautionary approach fails to recognize the inherent uncertainty present in fishery science. I would like to quote from Dr. Doug Butterworth of the University of Cape Town in South Africa. My written testimony has a much longer statement that he presented at the United Nations last year with regard to the precautionary approach, but I will just read from one paragraph that I think gets at the heart of the matter. Dr. Butterworth's words: "My chief argument is with those who cite the precautionary principle as the justification to defend a worst-case scenario-based management approach, but if we are honest with ourselves, this is simply not a practical approach to life. If anyone disagrees with me, I would be interested in their explanation of how they got here, given that precautionarily, they should have declined to take an aircraft flight to Rome," which is where the UN meeting was, "because they were unable to rule out absolutely the possibility that the aircraft would crash."

Dr. Butterworth's point is that the precautionary approach cannot be applied unless combined with an assessment of the probabilities of certain outcomes and a determination of acceptable levels of risk that those outcomes will occur. The determination of an acceptable risk level is a social and a political decision. It is not a scientific one. NFI believes that to apply the precautionary approach in the absence of risk analysis assumes that a zero chance of overfishing, regardless of the social and economic impact, is the right social choice.

We must remember that fishermen, just like farmers, provide Americans with an important renewable resource food, a food, in fact, which medical experts recommend Americans consume more of as part of a healthy and balanced diet. These fishermen create jobs and economic prosperity—

Mr. GILCHREST. Mr. LeBlanc, we are going to have a vote in less than 10 minutes, and I am wondering if you are close to the end of your statement.

Mr. LEBLANC. Indeed, one last sentence.

Under worst-case scenario-based management, Mr. Chairman, Americans would continue to flock to their oceanfront condominiums which have replaced commercial fishing piers; look out on an ocean full of fish and have no seafood on the dinner plate.

Thank you for the opportunity to testify.

Mr. GILCHREST. Thank you.

[The prepared statement of Mr. LeBlanc follows:]

Statement of Justin LeBlanc, Vice President, Government Relations, National Fisheries Institute

Chairman Gilchrest, Congressman Underwood, and distinguished Members of the Subcommittee, on behalf of the more than 800 members of the National Fisheries Institute (NFI), I want to thank you for the opportunity to testify before you on the reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA). I am Justin LeBlanc, the Vice President of Government Relations at the NFI.

The NFI is the Nation's leading trade association for the diverse commercial fish and seafood industry. We are an "ocean to table" organization, representing harvesters, processors, importers, exporters, distributors, restaurants, and retail establishments. NFI's mission is to ensure an ample, safe, and sustainable seafood supply to consumers. The NFI is therefore committed to the long-term sustainable use of our nation's fishery resources. As I have stated before to this Subcommittee, some of our member companies have been providing seafood to U.S. consumers for more than 100 years and would like to continue to do so for at least another 100 years.

The 1996 Sustainable Fisheries Act (SFA), as we all know, marked a tremendous redirection of our nations fishery policies. Considerable new burdens were placed on the Regional Fishery Management Councils and the National Marine Fisheries Service (NMFS) to end overfishing, rebuild overfished fisheries, protect Essential Fish Habitat, and assess impacts on fishing communities, among other things. Many sectors of the commercial fishing industry, including the NFI, supported many of the provisions enacted in the SFA. However, the implementation of these provisions by the National Marine Fisheries Service (NMFS) has revealed very serious problems with the Act that need to be addressed. While well-intentioned, many of these new provisions have had unexpected impacts and consequences and have revealed strategic weaknesses in our fisheries conservation and management system. My testimony will focus on 7 key issues:

1. Best Scientific Information Available
2. Essential Fish Habitat
3. Overfishing/Rebuilding
4. Observers
5. Cumulative Impacts of Regulatory Decisions
6. Precautionary Approach
7. Ecosystem Management

1. Best Scientific Information Available

National Standard #2 of the MSFCMA requires all Fishery Management Plans (FMPs) to be based on the best scientific information available. In all too many cases, there has been far greater emphasis on what information is available and far too little interest in generating the best information. For example (and there are many), the New England Fishery Management Council and the NMFS are currently developing a Fishery Management Plan for deep-sea red crab. As a basis for the FMP, they are using data generated by a 1974 otter trawl survey of 2 week duration and choosing to ignore more recent research conducted by Canada, the Virginia Institute of Marine Sciences, and the University of Maryland because such information is not "official NMFS data." It is clearly in the best interest of all parties that the most contemporary reliable data be used for stock assessment and FMP development, whether such data is generated "in-house" or by outside sources.

In recent years, there have been numerous examples of NMFS data being disproven by outside expertise. The surf clam/ocean quahog fishery of the Mid-Atlantic region was essentially saved by outside expertise that demonstrated serious undersampling of the resource by NMFS surveys. Outside research on New England scallops also demonstrated inadequate science by the agency. Although the NMFS likes to tout New England scallops as a management success story, the industry had to fight tooth and nail to get the outside research recognized as legitimate by the agency and incorporated into the FMP process. Independent, outside review of the NMFS data on the South Atlantic Reef Fish FMP also demonstrated serious deficiencies in the information being used by the agency.

The NFI believes there are three things that could markedly improve the Best Scientific Information Available: independent peer review of NMFS stock assessment data, cooperative research programs, and equitable treatment of "anecdotal information" from both commercial and recreational sectors.

Every regional fishery management council has a committee that "independently" reviews NMFS stock assessment data. Far too often, these review committees are anything but independent. Often filled with other NMFS employees and recipients of NMFS funding, these committees have inherent conflicts-of-interest that create either conscious or unconscious tendencies to support the NMFS data. With the tendency of truly independent analyses to differ from NMFS-generated data and the unwillingness (now lessening) of the agency to consider outside information, truly independent peer reviews of the scientific data upon which FMPs are based could dramatically improve NMFS stock assessment work and the confidence of user groups in that work.

Other major criticisms of NMFS scientific work are that it is insufficient in quantity and quality and that it lacks stakeholder confidence. Cooperative research programs could go a long-way to solving some of these problems, at least in part. Cooperative research efforts allow the NMFS to leverage limited Federal dollars while at the same time building relationships with the commercial sector from which both scientists and fishermen can learn. For example, the Mid-Atlantic commercial fleet, through Rutgers University is currently engaged in side-by-side trawl surveys with a commercial fishing vessel (F/V Janice and Danielle) fishing alongside the NMFS FR/V Albatross at the Albatross historic sampling sites. Although the data is yet to be analyzed, reports from the vessels indicate a difference in catch of such enormous magnitude that the statistical reliability of NMFS' surveys may be suspect. For example, the commercial vessel has landed as much scup in one tow at one NMFS station as the Albatross landed for its entire survey last year.

On the West Coast, the Pacific groundfish fishery is suffering under a tremendous harvest reduction to rebuild fisheries classified as overfished. With NMFS surveys of these stocks occurring only once every 3 years, this 30-years old fishery is being managed with essentially ten data points. Cooperative research could help fill these massive data gaps. The General Accounting Office (GAO)[1] in its report last April recommended that the NMFS "increase the involvement of the fishing industry, its expertise, and its vessels in fishery research activities..."

In addition, the NMFS must incorporate anecdotal information provided by fishermen into its stock assessment process, if only to question and/or ground truth the legitimacy of its own scientific information as the side-by-side trawl work I just mentioned suggests. This proposal is constantly scoffed at by NMFS employees and members of the conservation community. No one is proposing that fishermen shouting at a council meeting "There are plenty of fish out there!" should turn over a NMFS official stock assessment. However, as the GAO[1] reports, NMFS does require commercial fishermen to collect and report about the type, weight, and length of species harvested. Because much of this information cannot be independently verified, NMFS is reluctant to use it. NMFS does, however, use similar self-reported data for recreational fishermen. NMFS obtains information about recreational

catches, in part, by calling a random sample of recreational fishermen and asking them what they caught. These unverified responses are then combined with catch data obtained from a sample of recreational fishermen as they land to estimate the total recreational catch. While anecdotal information cannot replace true scientific analyses, it can inform the process in important ways and should be taken into consideration in some manner.

2. Essential Fish Habitat

The implementation of the Essential Fish Habitat (EFH) provisions by the NMFS has been flawed as revealed in the hearing this Subcommittee held on EFH last year. The scope of EFH has been defined far too broadly, resulting in essentially the entire Exclusive Economic Zone (EEZ) being defined as EFH. If everything is essential then nothing is. If you attempt to protect everything, you will likely end up protecting nothing at all. The NFI believes this conception of EFH is inconsistent with congressional intent. The concept of EFH should be used to afford the conservation of discrete or particular, definable units of habitat. The NMFS concept of Habitat Areas of Particular Concern (HAPCs) is much more on target and the authority to regulate the impacts of fishing activities should be focused on these areas, not the entire EEZ.

3. Overfishing and Rebuilding Programs

Currently, any stock of fish that is of low abundance relative to some historic high is classified as an overfished stock, whether this low abundance is the result of fishing activity or changes in the marine environment unrelated to fishing. Since these fisheries are classified as overfished, the Councils are required to implement rebuilding plans to once again attain the historic high level of abundance within 10 years, whether or not the current state of the marine environment can sustain such an abundance level (considered the carrying capacity of the environment for a stock of fish). The apparent driving force behind this is a misconception of the Maximum Sustainable Yield (MSY) of a fishery as a static concept that does not change.

But MSY is dependent on the carrying capacity of the marine environment. Changes in the marine environment alter the carrying capacity of the environment, which, in turn changes the potential MSY for the fishery. The National Academy of Sciences (NAS), in its 1999 report: Sustaining Marine Fisheries[2] states that "Environmental changes can produce effects similar to those of fishing, and it is often difficult to distinguish them from the effects of fishing. Although they cannot be controlled directly, environmental fluctuations exert a fundamental influence on the behavior of marine ecosystems and must be taken into account by managers. To be sustainable, fishing and fishery management must be flexible and responsive to environmental changes as well as conservative of ecosystem components."

In the second edition of "Understanding Fisheries Management"[3], a manual published by the Auburn University Sea Grant Marine Extension and Research Center and the Mississippi-Alabama Sea Grant Legal Program, the authors state:

"Another aspects of carrying capacity is that it changes as environmental conditions changes from year to year. The most obvious example of this is found in the brown shrimp fishery of the Gulf of Mexico. From 1980 to 1998 landings were as high as 193 million pounds (1986) and as low as 125 million pounds (in 1983). Much of this variation can be attributed to salinity conditions in the marsh habitat used by very small shrimp. When conditions were good (high salinity), there was more suitable habitat and more young shrimp survived. When conditions were poor (low salinity), there was less suitable habitat and fewer young shrimp survived."

While it is obvious that harvest regimes need to take this variability into account, more importantly, our concepts of overfishing need to be altered to recognize this variability. Otherwise, in low salinity years, the Gulf of Mexico brown shrimp fishery would be classified as overfished and a rebuilding plan to attain the abundance of a high salinity year would be imposed, unnecessarily restricting fishing activity and not producing the desired result, particularly if there are a number of low salinity years in a row.

In another example, the Mid-Atlantic scup fishery is classified as overfished and subject to a rebuilding plan. The NMFS has relative abundance data for scup going back 30 years. The long-term average relative abundance of scup since 1969 is 0.78 kg/tow Spring Spawning Stock Biomass (rolling 3-year average). However, for 3 years (1977-1979) immediately following the passage of the FCMA, scup relative abundance shot up to an average 2.26 kg/tow Spring Spawning Stock Biomass. The NMFS has selected as its rebuilding target (MSY) for scup this average of the three highest years on record, even though it is three times higher than the long-term average. It is unlikely that scup will ever reach these abundance levels again, even with a cessation of all fishing activity.

On the West Coast, Pacific Ocean Perch (POP) is commonly found in Alaska, Canada, and northern Washington. The Washington stock was heavily fished by foreign vessels prior to enactment of the MSFCMA. When the U.S. assumed management in 1977, the Pacific Fishery Management Council established a rebuilding program to restore the stock. Surprisingly, stocks leveled off but did not increase in spite of stringent harvest controls. At the same time, POP stocks in Alaska were rapidly rebuilding. It now appears that the Washington stock was an outlying population that moved into the area in response to some unknown shift in the marine environment that shifted back as evidenced by the return of POP to Alaska. Such a shift changed the carrying capacity for POP in the waters off the coast of Washington. In addition, as POP stocks declined, other species replaced the ecosystem "space" made available, yet another change to the carrying capacity of Washington waters. Finally, original stock assessments more than likely over-estimated the virgin biomass as the reporting of foreign catches was haphazard and unreliable: since POP was a prime commodity, especially in Russia, all rockfish were reported as POP. Despite all these factors, under the MSFCMA we are required to rebuild POP to an abundance level that probably never existed and, even if it did, is not likely possible today.

It is therefore imperative that our definitions of MSY, overfishing, and rebuilding recognize environmental variability and take it into consideration when determining whether fisheries are overfished and what appropriate rebuilding targets should be.

Another example of the 1996 SFA gone awry is Georges Bank haddock (G.B. haddock). In 1993, the New England Fishery Management Council submitted a rebuilding plan for G.B. haddock as part of Amendment 5 to the Multispecies FMP. Under the rebuilding plan approved by the Secretary, the status of G.B. haddock has markedly improved. Spawning stock biomass has increased from 10,900 metric tons (mt) to 38,100 mt in 1998. The 1998 and 1999 year classes of haddock are estimated to be 48.5 million and 35.2 million fish, respectively. The 1998 year class is the largest year-class since 1978 and the third largest year class since 1964, the 1999 year-class is the fourth largest since 1964.

Spawning stock biomass for 1999 is estimated to be 48,522 mt or 46 percent of the MSY yield target of 105,000 mt. Spawning stock biomass is projected to increase to 86,145 mt by 2001 (probability 75 percent) under present restrictions and the present fishing mortality rate. The stock is projected to rebuild to MSY spawning stock biomass (105,000 mt) under present restrictions by 2002. The present fishing mortality rate is well below the maximum allowed and is well below the rate at which the Canadians are fishing the stock.

Nonetheless, under the present requirements of the MSFCMA and the National Standard Guidelines, the Council must establish a new rebuilding program for G.B. Haddock. That rebuilding program must be accomplished in the shortest possible time, not to exceed 10 years. The Council's groundfish plan development team has suggested a rebuilding time of 2004 with a fishing mortality rate 38 percent lower than the current rate, which is already 39 percent lower than the maximum allowed! This requirement will further restrict fishing for G.B. haddock at precisely the time the stock will have reached MSY under the existing restrictions!

The system is clearly broken.

4. Observers

There has been a call by some for universal observer coverage in all U.S. fisheries. Observers can and do play a critical role in enhancing the scientific data for FMPs. Universal observer coverage, however, is not necessary, may be cost-prohibitive, and poses potential safety threats. Used in combination with self-reported information, representative observer coverage can provide statistically reliable information. In addition, many fisheries and the vessels engaged in them are ill-suited for observers whose presence could create safety concerns for both observers and the crew, particularly on small vessels.

Also of importance is the need to clarify the goals and objectives of observer programs before they are implemented. Are the observers on-board to monitor bycatch, discards, species composition, total landings, or some combination of these parameters? How will the fishery, the Council, and the NMFS confirm that the data being collected by observers is effective at addressing the goals and objectives and that the information is being incorporated into the management process? The NFI believes that all observer programs should have clearly articulated goals and objectives developed before their implementation and that these programs should be periodically assessed to ensure they are fulfilling the goals and objectives. Such an approach will only improve observer programs in the long-term.

In addition, the costs of observer programs should be borne by all the beneficiaries of the program, including all participants in the observed fishery as well as other affected fisheries, where appropriate.

5. Cumulative Impacts of Regulatory Decisions

National Standard #8 requires the NMFS to minimize the adverse economic impacts of fishery conservation and management measures on fishing communities. All too often, however, the NMFS assesses a regulatory decision in isolation from previous decisions in the same fishery, thereby determining that the regulatory decision has no significant economic impact and is, therefore, consistent with not only with National Standard #8, but also the requirements of the National Environmental Policy Act, the Regulatory Flexibility Act and Executive Order 12866. In many of these cases, the most-recent regulatory decision could well be the straw that breaks the camel's back. The GAO[1] recommended that the consideration of secondary and cumulative impacts by the NMFS be expanded.

For example, as has already been mentioned, the data base used to manage west coast groundfish is poor. As a result—and especially with Pacific rockfish species—the Pacific Fishery Management Council has taken a number of management actions, each of which independently are arguably scientifically correct, but which cumulatively have led to a disaster declaration for the industry. These include "precautionary" reductions on Pacific rockfish harvest due to lack of data; imposition (with no phase-in period) of new harvest rate policies that further reduce harvest levels; and multi-species harvest restrictions in order to protect single species. Even worse, the Council has collected virtually no social and economic data on the fleet, processors, or local communities, so the Council can't even begin to measure cumulative impacts; but the number of "For Sale" signs on the dock tells you that the impacts exist.

The NFI believes, therefore, that National Standard #8 should be amended to require the agency, when considering the impact of regulatory decisions on fishing communities and seeking to minimize negative economic impacts, to consider the cumulative economic and social impacts in order to more accurately reflect the toll such decisions can take on fishing communities. Such analyses would not only assess the impacts of additional incremental regulations on a particular fishery but also how those regulatory decisions may impact other fisheries by, for example, shifting effort to those other fisheries.

6. Precautionary Approach

The MSFCMA does not call for the application of the precautionary approach. However, the United States is party to several international agreements, most notably the United Nations Code of Conduct for Responsible Fisheries, that call for the application of the precautionary approach. The precautionary approach has been touted as an approach to fisheries management to will save us from making mistakes that could devastate a fishery. Simply put, the precautionary approach proposes that the less you know, the more conservative your approach. It sounds so good, so common-sensical, how can anyone oppose it. However, this simple description of the precautionary approach fails to recognize the inherent uncertainty present in fisheries science.

I would like to refer to someone with far more expertise on this matter than myself. Dr. Doug Butterworth of the University of Cape Town, South Africa presented a paper at the United Nations last year on the precautionary approach[4]. Dr. Butterworth is an internationally recognized fisheries expert and provides scientific guidance on the precautionary approach to both the United Nations and the Convention on International Trade in Endangered Species (CITES). Dr. Butterworth states:

"Fisheries assessment is an inexact science, in which uncertainty is pervasive. At a certain level, uncertainty, or, lack of predictability, is endemic, and fisheries management has to learn to live with that. Three decades ago, fisheries management dealt with this problem simply. Coarsely put, it said: use the scientist's agreed best assessment, then take off 10 percent for safety. But then scientists started trying to get more clever. We argued essentially that the safety level should be greater, the less certain we are..."

"Now as a counter to arguments typically offered by short-term-orientated industrial interests in the past—'catches can't be reduced unless there's absolute certainty that this is necessary'—the existing statement of the Precautionary Principle *(where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation, inserted)* is fine, albeit lacking in specifics... But the Principle as stated offers no operational definition and the choice of language is

poor. In science we can only disprove, not prove, so that there is never 'full scientific certainty'. These deficiencies has allowed free reign in interpreting the Principle."

"My chief argument is with those who cite the Precautionary Principle as the justification to defend a 'worst-case scenario' based management approach... But if we are honest with ourselves, that is simply not a practical approach to life. If anyone disagrees with me, I'll be interested in their explanation of how they got here, given that, precautionarily, they should have declined to take an aircraft flight to Rome because they were unable to rule out absolutely the possibility that the aircraft would crash."

Dr. Butterworth's point is that the precautionary approach cannot be effectively applied in the context of fisheries management unless combined with an assessment of the probabilities of certain outcomes and a determination of acceptable levels of risk that these outcomes will occur.

The determination of acceptable risk levels is a social and political decision. It is not a scientific one. Scientists should tell fishery managers that a certain fishing mortality rate has a certain probability of overfishing the resource. Fishery managers should then combine this information with an estimate of the social and economic impacts of their decisions and choose an acceptable balance.

Of course, worst-case scenario management would have you seek a fishing mortality rate that has no chance of overfishing the resource. Such an approach is not only impractical, it is impossible. But even in the absence of worst-case scenario management, the Precautionary approach would have you always select a lower fishing mortality rate regardless of the cost to society. But is that appropriate? Or is there some point at which we, as a society, are willing to accept a slightly higher risk of negative outcomes to minimize negative social and economic impacts? And where does the tradeoff occur? At what point is this risk of overfishing too high? 5 percent, 10 percent, 50 percent? At what point are the social and economic costs too great? The challenge is that there is no right answer to these questions. Science cannot tell us what to do. We must make a social decision about the balance we seek in fisheries conservation and management.

The NFI believes that to apply the Precautionary Approach in the absence of such risk analysis assumes that a zero chance of overfishing regardless of the social and economic impact is the right social choice. We cannot support such an approach. Now, of course an FMP should be less likely to result in overfishing than more likely, but just how unlikely is appropriate will vary from fishery to fishery dependent upon the social and economic costs.

We must remember that fishermen, just like farmers, provide Americans with an important resource: food. A food, in fact, which medical experts recommend Americans consume more of as part of a healthy and balanced diet. These fishermen create jobs and economic prosperity, stabilizing and enhancing the communities in which they live. Are we as a society willing to sacrifice fishing communities and the people whose livelihoods depend upon fishing in order to achieve zero-risk (biologically) fishery conservation and management regimes? Or should we be willing to accept certain levels of risk to ensure that fishing communities and fishermen are around to reap the benefits of rebuilt fisheries for American and world consumers in the future? Under worst-case scenario management, Americans could continue to flock to their ocean-front condominiums that have replaced commercial fishing piers, look out on an ocean full of fish, and have no seafood on the dinner plate.

7. Ecosystem Management or Multi-species Management

In the 1999 Report to Congress by the Ecosystem Principles Advisory Panel titled Ecosystem-Based Fishery Management[5], the Panel calls on the NMFS to develop Fisheries Ecosystem Plans (FEPs) for every Fishery Management Plan. The Panel calls for these FEPs to contain the following:

a. Delineate the geographic extent of the ecosystem(s) that occur(s) within Council authority, including characterization of the biological, chemical, and physical dynamics of those ecosystems, and "zone" the area for alternative uses.
b. Develop a conceptual model of the food web.
c. Describe the habitat needs of different life history stages for all plants and animals that represent the "significant food web" and how they are considered in conservation and management measures.
d. Calculate total removals including incidental mortality and show how they relate to standing biomass, production, optimum yields, natural mortality, and trophic structure.
e. Assess how uncertainty is characterized and what kind of buffers against uncertainty are included in conservation and management actions.
f. Develop indices of ecosystem health as targets for management.
g. Describe available long-term monitoring data and how they are used.

h. Assess the ecological, human, and institutional elements of the ecosystem that most significantly affect fisheries and are outside the Council/Department of Commerce authority. Included should be a strategy to address those influences in order to achieve both FMP and FEP objectives.

While many fishermen have been urging the NMFS to take into consideration the impacts of coastal development, pollution, and other environmental changes on fisheries productivity and to adopt multi-species management systems that take into consideration competitive interactions and predator-prey relationships, the sheer information needs of a comprehensive ecosystem management approach as outlined by the Panel are overwhelming.

Before ecosystem management could be implemented in any real sense, massive data insufficiencies would need to be filled. The Regional Fishery Management Councils and the NMFS are already overwhelmed with obligations under the MSFCMA and, as the growing number of lawsuits filed against the agency reveal, are already severely limited in their ability to meet these obligations. Comprehensive ecosystem-based fisheries conservation and management would require a NMFS budget many times larger than is currently the case. The NFI is not convinced that there is a political willingness to fund the agency sufficiently to meet the scientific requirements of ecosystem-based management.

To require such an approach would, therefore, result in essentially an unfunded mandate to the agency and, by proxy, to the user groups. We simply do not have a thorough enough scientific understanding of marine ecosystems to know all the variables that must be incorporated into ecosystem-based management. The NFI believes we must considerably expand our knowledge base before we can implement ecosystem-based fisheries conservation and management in a manner that avoids unintended consequences for both fishermen and marine ecosystems.

Mr. Chairman, Members of the Subcommittee, the reauthorization of the MSFCMA presents a tremendous opportunity to further evolve our fisheries conservation and management policies. The 1996 SFA was an important step in that evolution from which we have learned many lessons. I look forward to working with all of you during the reauthorization process to ensure a law that provides for sustainable fisheries while allowing U.S. consumers to enjoy safe, wholesome seafood. I thank you for the opportunity to testify before you.

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Mr. GILCHREST. Thank you very much.

Mr. Crockett?

STATEMENT OF LEE CROCKETT, EXECUTIVE DIRECTOR, MARINE FISH CONSERVATION NETWORK

Mr. CROCKETT. Good afternoon, Mr. Chairman and Members of the Subcommittee. My name is Lee Crockett. I am the executive di-

rector of the Marine Fish Conservation Network. The network is a coalition of 102 environmental organizations, commercial and recreational fishing groups and marine science groups dedicated to promoting the long-term sustainability of marine fisheries. We appreciate the opportunity to present our views on reauthorization of the Magnuson-Stevens Act.

Thanks to the hard work of you, Mr. Chairman, and others, the Sustainable Fisheries Act was passed and signed into law in October 1996. It was hailed as a landmark piece of legislation that would significantly improve fisheries conservation. Yet more than 4 years after its passage, the bright promise of the SFA has not materialized. Since the SFA's enactment in 1996, members of the network have been closely following its implementation. Based on our experiences, we have issued two reports. The first, which evaluated council implementation of the SFA, was entitled Missing the Boat; the other, entitled Lost at Sea, evaluated NMFS' implementation of the act.

Based on these analyses, we identified three major shortcomings with implementation of the SFA. First, while some progress has been made in controlling overfishing and rebuilding overfished stocks, short-term overfishing was allowed in some fisheries, and many rebuilding plants had been stretched out to the maximum allowed by law. Second, many councils ignored the bycatch requirement by either relying on past, inadequate, actions or by postponing action until a later date.

The most common rationale for the inaction was the lack of data. However, nearly all councils failed to establish the required bycatch reporting system to gather such data. Thirdly, we felt that the councils did a good job of identifying essential fish habitat, but nearly all had failed to carry out one of the most important SFA mandates: protecting the EFH from damaging fishing practices. In Lost at Sea, our evaluation of NMFS, we found that despite earlier assurances, NMFS failed to reject the vast majority of the inadequate SFA implementation amendments.

We are currently in the process of conducting a followup to Lost at Sea to determine what the councils and NMFS have done to correct deficient plan amendments since September 1999. In my testimony, I detailed some of our preliminary findings. While I don't want to repeat that discussion, I do want to point out two overarching problems that we found: first, once NMFS approves an inadequate plan amendment, the councils are not likely to change it. Secondly, even when NMFS has disapproved inadequate amendments, the councils are slow to correct deficiencies.

While some have argued that our concerns could be addressed through better implementation of the act, we believe that it is the act's legal framework that allows poor implementation. In the case of overfishing, flexibility in the law has allowed NMFS to develop regulations that allow overfishing of weak stocks in mixed-stock fisheries. In the case of bycatch, flexibility in the law allows the councils to claim that there is too little data to take action while at the same time failing to take meaningful steps to collect the data.

Flexibility in the law has allowed managers to identify EFH but take no action to protect it from damaging fishing practices. We be-

lieve that implementation of the SFA is not likely to improve until Congress provides further legal clarification and direction. To accomplish this, we recommend that Congress strengthen the Magnuson-Stevens Act during reauthorization in the following ways: first, you should prohibit overfishing of all stocks in a mixed-stock fishery. On bycatch, you should make avoiding bycatch a priority and require fishery managers to take action to reduce bycatch under strict timelines. To protect essential fish habitat from damaging fishing practices, we should prohibit fishing activities that damage EFH unless the prohibition is shown to be unnecessary. We should also prohibit the introduction of new fishing gears or the opening of closed areas unless EFH damage is assessed and minimized.

We must also expand fishery management beyond traditional single-species management to ecosystem-based management. To do this, we should require councils to develop ecosystem plans for each major ecosystem within their jurisdiction and then require that the management measures be consistent with those ecosystem plans. We should also establish mandatory observer programs. Objective observation and data collection are vital to effectively manage marine fisheries. To improve data collection, legislative changes are needed to establish mandatory fishery observer programs for all Federally-managed fisheries to collect statistically valid, reliable data. We believe that these observer programs should be funded by a user fee based on value and applied to all fish landed and sold in the United States.

Several witnesses have also mentioned that they want to see the moratorium on individual fishing quotas lifted. The network's position on this is that we think the moratorium on IFQs should remain in place until Congress acts to establish standards that protect fishermen and the marine environment.

So, having detailed the network's ideas for reauthorization to the Magnuson-Stevens Act, I would like to close by cautioning the Subcommittee against weakening the conservation provisions of the act. Nearly 5 years have passed since passage of the SFA. We are just beginning to see some stocks begin to rebound. However, many other stocks have shown little improvement, and some continue to decline. The recent Department of Commerce Status of Stocks report shows that for the fourth year in a row, the number of stocks that are either overfished, experiencing overfishing or both has increased. Currently 107 stocks, 43 percent of those that are assessed, are in that condition.

We think that that is a clear indication that our fish conservation laws need to be strengthened, not weakened. Thank you for providing us this opportunity to present our views on reauthorization of the Magnuson-Stevens Act. I would be happy to answer any questions.

[The prepared statement of Mr. Crockett follows:]

Statement of Lee R. Crockett, Executive Director, Marine Fish Conservation Network

Good afternoon Mr. Chairman and Members of the Subcommittee, my name is Lee Crockett, I am the Executive Director of the Marine Fish Conservation Network (Network). The Network is a coalition of 102 environmental organizations, commercial and recreational fishing associations, and marine science groups dedicated to

promoting the long-term sustainability of marine fisheries. Our member organizations represent nearly 5 million people. For your information, I've attached a list of Network members to my testimony. We appreciate this opportunity to present our views on reauthorization of the Magnuson-Stevens Act. As you requested, I will focus my testimony on progress and effectiveness of implementation of the 1996 Sustainable Fisheries Act (SFA) amendments to the Magnuson-Stevens Act and the issues that we think the Subcommittee should address during reauthorization.

I would first like to say how pleased we are that you are now the Chairman of this Subcommittee. You have been a leader in Congress on fish conservation for many years and can rightfully claim to be one of the fathers of the SFA. It was your legislation, H.R. 4404, the "Marine Fish Conservation Amendments of 1994," that formed the basis for the SFA's overfishing, bycatch, and essential fish habitat provisions. As you have a paternal claim to the conservation provisions of the SFA, so does the Network. We have advocated for changes to the Magnuson-Stevens Act to prohibit overfishing, minimize bycatch, and identify and protect essential fish habitat since 1993.

Since enactment of the SFA in 1996, members of the Network have been actively involved in its implementation at the regional fishery management council level. Our members have actively participated in the council process as members of and advisors to council committees, and as interested stakeholders through written and oral testimony. We have been working diligently over the past 4 years to ensure that the SFA is implemented as Congress intended. Based on our experience, the Network issued a report in January 1999, in partnership with the Center for Marine Conservation, evaluating council implementation of the SFA. The report, entitled Missing the Boat, identified major failures in the implementation of the SFA. We found that while the councils had made some progress in controlling overfishing and rebuilding overfished stocks, much more work was needed. Some councils continued to allow short-term overfishing, and many stretched rebuilding plans out to the maximum allowed by law, 10 years or beyond. These risky practices jeopardize rebuilding these overfished stocks.

We also found that the councils failed to implement the SFA's bycatch requirements. Many councils ignored this requirement either by relying on past inadequate actions, or by postponing action until some later unspecified date. The most often cited excuse for inaction was a lack of data. However, the councils uniformly did not even establish the SFA mandated bycatch reporting systems necessary to gather such data.

The councils did a better job of implementing the Act's essential fish habitat (EFH) requirements. Across the board, the councils engaged in a thorough information gathering process and identified EFH in an appropriately precautionary manner. However, nearly all of the councils failed to carry out one of the most important SFA mandates: protecting EFH from damaging fishing practices.

In response to Missing the Boat, the National Marine Fisheries Service (NMFS) stated that it was too early to criticize implementation of the SFA and assured the public and us that it would return inadequate SFA implementation amendments and plans to the councils for "necessary modifications." Since then, members of the Network have been closely following NMFS' response to the fishery management councils' SFA implementation amendments. We reviewed each amendment and provided NMFS with detailed comments and recommendations on which sections should be approved or disapproved for not meeting SFA requirements. We also issued another report on NMFS' implementation of the SFA entitled Lost at Sea. In that report, we found that, despite its earlier assurances, NMFS failed to reject the vast majority of the inadequate SFA implementation amendments. NMFS approved three plan amendments that allowed continued short-term overfishing. It also approved 12 rebuilding plans that did not meet the requirement to rebuild overfished stocks in as short a time as possible, but instead stretched rebuilding out for10 years. With regard to bycatch, we found that all of the 24 plan amendments submitted as of September 1999 were inadequate and should have been rejected. Unfortunately, NMFS rejected only 5 of those inadequate amendments.

With regard to EFH, only two of the existing EFH amendments contained any new measures to protect habitat from damaging fishing practices, and both affected only small areas. Aside from these minor actions, little else has been done to protect fish habitat from fishing impacts. Most councils failed to even conduct a comprehensive assessment of the effects of fishing gear on habitat or the practicability of measures to reduce those impacts. NMFS' response to those failings was to partially disapprove nine inadequate amendments, while approving 28 equally inadequate amendments.

The Network is in the process of conducting a follow-up to Lost at Sea to determine what the councils and NMFS have done to correct deficient plan amendments

since September 1999. While this study is not complete, I would like to share some of our preliminary results with you.

In New England, the Council has not implemented the SFA overfishing definitions or the required rebuilding plans, nearly 5 years after the Act's passage. Many stocks continue to be managed based on pre-SFA overfishing and rebuilding targets. With regard to bycatch, the Council failed to establish a bycatch reporting methodology and continues to rely on existing reporting requirements to report bycatch—vessel trip reports and minimal at-sea observer coverage—even though it admits that both are unreliable for assessing bycatch. As to protecting EFH, NMFS fully approved the Omnibus EFH amendment. However, this approval was unwarranted as the amendments failed: (1) to assess the impacts of the eighteen predominant gears used in New England on EFH; and (2) incorrectly found that existing measures were adequate to minimize fishing impacts on EFH. Since the passage of the Omnibus EFH Amendment, many of the measures it relied on to minimize fishing effects on EFH have been weakened (groundfish closed areas) or never implemented (scallop days at sea reductions).

Similar issues arise in the Mid-Atlantic, NMFS approved most of the Council's overfishing and rebuilding plans—even thought many relied on pre-SFA overfishing definitions that were risk-prone. While NMFS rejected the scup rebuilding plan, the Council has yet to develop an amendment to modify the existing plan. Most of the Mid-Atlantic Council's plan amendments to address bycatch rely on existing catch reporting requirements. Paradoxically, the Council deferred taking action to minimize bycatch due to lack of data because of the unreliability of existing reporting methods. NMFS approved most of these plans and only rejected the scup bycatch provisions of the Summer Flounder, Scup, and Black Sea Bass management plan. The Council has yet to adopt adequate measures to reduce scup bycatch in the squid, herring, and mackerel fisheries. NMFS rejected all of the EFH amendments because they did not adequately assess the impact of fishing on EFH, or provide an adequate rationale for not taking action to minimize the effects of damaging fishing practices. The Council has yet to remedy these deficient EFH provisions.

In the South Atlantic, NMFS rejected most of the overfishing provisions of the Council's SFA amendment because they relied on pre-SFA overfishing definitions that did not comply with the new requirements of the SFA, namely that they be biomass-based. The Council has yet to implement revised overfishing definitions for most of these rejected species. With regard to bycatch, the Council continues to rely on logbooks to collect bycatch information—many of which still fail to contain necessary fields to report bycatch. While NMFS is planning to modify fishery logbooks to include bycatch reporting this year, such a measure fails to address the serious concerns about reliability, or ensure accurate bycatch reporting in the future.

The Gulf Council's comprehensive EFH amendment was only partially approved by NMFS because it did not identify EFH for all managed species and did not adequately assess the impacts of all fishing gear on EFH. The Council has yet to take any action to address the problems identified by NMFS when it partially approved the amendment. NMFS rejected the Council's bycatch reporting proposal and the provisions to minimize bycatch in all Gulf fisheries except stone crab. The Council has not submitted an amendment to address these problems, because it maintains that NMFS must provide it with the bycatch data necessary to revise the rejected amendments. Similarly, the Council has failed to revise its overfishing targets—most of which NMFS rejected—to comply with the new overfishing and rebuilding requirements of the SFA.

As of March 2001, the Caribbean Council has not submitted its comprehensive SFA amendment addressing the overfishing and bycatch provisions of the SFA. NMFS only partially approved the Council's EFH amendment, because it did not identify EFH for all managed species. The Council has yet to address this deficiency or to take action to address fishing gear impacts on EFH.

NMFS rejected the bycatch provisions of the Pacific Council's groundfish management plan. While the Council has developed a new bycatch amendment it still continues to fail to establish a standardized bycatch reporting methodology and to assess and minimize bycatch in the groundfish fishery. NMFS revoked its approval of rebuilding plans for boccacio rockfish, lingcod, and Pacific Ocean perch. The Council is required to revise these rebuilding plans no later than January 1, 2002. NMFS approved the EFH amendment to the Pacific Coast Salmon fishery management plan (FMP) on September 27, 2000, 2 years after the SFA's October 1998 deadline. NMFS also approved the EFH amendment for the Groundfish plan in April 2000, even though it failed to assess or minimize the adverse effects of fishing on EFH.

In the Western Pacific, NMFS rejected the bycatch provisions of both the Bottomfish and Pelagics management plans because they failed to quantify or minimize bycatch. The Council has yet to address these problems. NMFS rejected the

overfishing definitions in the Crustaceans, Bottomfish, and Precious Corals management plans. The Council has not modified any of the rejected overfishing definitions as of March 2001.

NMFS did not reject any of the SFA implementation amendments in the North Pacific. However, such approval was unwarranted, as many of the plans failed to address bycatch, protect EFH, or to prevent overfishing. The Council has focused its efforts on developing implementing rules for the American Fisheries Act, addressing the effects of its fisheries on the endangered Steller sea lion, seabird populations, and other affected protected species, and developing a supplemental environmental impact statement for its groundfish fisheries.

Reauthorization of the Magnuson-Stevens Act

When the SFA was enacted in 1996, it was hailed as a landmark piece of conservation legislation that would significantly improve fisheries conservation. Yet more than 4 years after its passage, the bright promise of the SFA has not materialized. As our multiple reviews demonstrate, overfishing is allowed to continue. Rebuilding plans are too long and too risky. Bycatch is not being quantified or minimized. EFH has been identified, but too little is being done to protect it.

Some argue that our concerns could be addressed through better implementation of the Act. In theory this may be true, but in practice it is not. Our review of SFA implementation clearly demonstrates two phenomena. First, once NMFS approves an inadequate management plan amendment, the councils are not likely to change it. Second, even when NMFS has disapproved inadequate amendments, and required revision as soon as possible, the councils are slow to correct deficiencies.

However, while part of the problem can be attributed to poor implementation, the Act's legal framework also allows this to happen. In the case of overfishing, flexibility in the law has allowed NMFS to develop regulations that allow for overfishing of weak stocks in mixed stock fisheries. In the case of bycatch, flexibility in the law allows NMFS and the councils to claim that there is too little data to take action to minimize bycatch, while at the same time failing to take meaningful steps to collect that data. Flexibility in the law has allowed managers to identify EFH, but take almost no action to protect it from damaging fishing practices, the one area they have direct control over.

We believe that implementation of the SFA is not likely to improve and that mangers will continue to exploit the flexibility of the Act until Congress provides much needed further legal clarification. To accomplish this, the Marine Fish Conservation Network recommends that Congress strengthen the conservation provisions of the Magnuson-Stevens Act during reauthorization. Our specific recommendations are listed below.

RECOMMENDATIONS FOR STRENGTHENING THE MAGNUSON-STEVENS ACT

Eliminate Overfishing of All Species

The Magnuson-Stevens Act mandates that conservation and management measures must prevent overfishing. But in too many cases, managers still react to overfishing after it occurs and continue to improperly interpret the law and regulations so as to continue to allow overfishing. In addition, managers are not accounting for all sources of fishing mortality or ecosystem considerations in setting catch levels. Managers are extending periods allowed for rebuilding to 10 years, and, in some cases, beyond those limits. This "risk-prone" management increases the likelihood that stocks will not be rebuilt in 10 years, or even longer.

NMFS continues to interpret the prohibition on overfishing to allow for overfishing of fish caught in association with other populations of fish that are not themselves overfished. Only when a fish species is threatened with extinction does NMFS require protection for these "mixed stock" fisheries.

This practice is seriously impeding efforts to rebuild many weak stocks in mixed stock fisheries, and has resulted in the depletion of many species to the point where they are vulnerable to extinction. In the Gulf of Mexico and the South Atlantic, a number of grouper species are in serious trouble. Four species, Nassau grouper, Warsaw grouper, speckled hind, and jewfish are on the Endangered Species Act's List of Candidate Species. In the Gulf of Mexico, 10 of 15 of the managed grouper species have been identified as being at risk of extinction by the American Fisheries Society (AFS). In New England, Atlantic halibut stocks remain severely overfished and two species of skate (barndoor and thorny skates) are at risk of extinction according to the AFS. Despite the fact that there is no allowable catch of these threatened species, they are still caught and killed by non-selective fishing practices used in mixed stock fisheries.

On the West Coast, boccacio rockfish stocks have declined to less than 2 percent of their historic sizes and several organizations have petitioned for their listing on the ESA List of Candidate Species. The plight of the boccacio is particularly troubling because a little more than a decade ago, it comprised approximately 40 percent of the groundfish landings on the West Coast. Unless these weak stocks in mixed stock fisheries are protected we will continue to serially deplete many important stocks.

Fishing for some species, especially during particularly vulnerable life stages, has placed those fish at risk. For example, fishermen targeting certain grouper and snapper species, focus their efforts on areas where they aggregate to spawn year after year. Although this life history characteristic makes these species vulnerable to overfishing, they received some protection in the past from fishermen's inability to locate and revisit these areas. However, technological improvements in navigation technology have removed that protection, thus contributing to overfishing and delaying or preventing timely rebuilding of these fish stocks. These vulnerable fish need to be identified and protected.

To address these concerns, the Magnuson-Stevens Act should be amended to:

- prohibit overfishing of all stocks in a mixed stock fishery;
- require that each council provide added protection for stocks during spawning and other particularly vulnerable life stages; and
- mandate the application of the precautionary approach to fisheries management by requiring that management measures include measures to buffer against scientific uncertainty.

Avoid Bycatch

Bycatch is the indiscriminate catching of fish and marine life other than those a fishing vessel intends to capture. This includes fish that are not the target species, sex, size, or quality. It also includes many other fish and marine life that have no economic value but are ecologically important, such as starfish, sponges and skates. Primarily, bycatch results from fishing practices and gear that are not selective. In addition to visible mortality, fish and other sea life are sometimes killed or injured when passing through or escaping fishing gear, and through "ghost fishing" from abandoned or lost gear.

Environmental problems caused by bycatch include overfishing, increased scientific uncertainty regarding total fishing mortality, and potentially serious changes in the functioning of ecological communities. Economically, bycatch equates to lost future fishing opportunities as a result of mortality of commercially valuable fish.

In the SFA, Congress required action to address bycatch problems for the first time. However, as I discussed in detail above, the councils and NMFS have uniformly failed to take sufficient action to either report or avoid bycatch. They have relied upon past actions to satisfy this legal obligation, recommended insufficient action, or have not bothered to address the issue at all.

To address these concerns, the Magnuson-Stevens Act should be amended to:

- make avoiding bycatch in marine fisheries a priority;
- tighten the definition of bycatch to require that bycatch be avoided; and
- require fishery managers to take action to reduce bycatch under strict timelines.

Protect Essential Fish Habitat

Essential fish habitats are those waters and substrates on which fish are dependent to reach maturity and reproduce. The SFA requires action to describe, identify, conserve, and enhance EFH. The law and regulations require councils "to prevent, mitigate, or minimize" identified adverse effects from fishing unless it is not practicable to do so. As I detailed above, most councils claim that, either: 1) existing measures are adequate to minimize the adverse effects of fishing on EFH under their jurisdiction; or 2) that they did not have enough information to take action. Unfortunately, NMFS accepted these excuses and approved these deficient management plans. The "to the extent practicable" language in the law's EFH requirement is clearly being used as a loophole to avoid action, as is the familiar "lack of information" refrain.

The SFA requires NMFS to provide Federal agencies with recommendations on how to minimize, mitigate, or avoid adverse impacts from Federally permitted activities on EFH. Compliance with these recommendations is voluntary. This consultation requirement needs to be strengthened to more fully protect EFH.

To address these concerns, the Magnuson-Stevens Act should be amended to:

- require regional fishery management councils to prohibit certain fishing activities that may adversely affect EFH unless a council determines that the prohibition is not necessary to protect EFH;

- adopt the precautionary approach to habitat protection by prohibiting the introduction of new fishing gear or the opening of closed areas unless EFH damage is assessed and minimized; and
- enhance the EFH consultation requirement by providing that Federal agencies must ensure that their actions are not likely to adversely impact EFH.

Conserve Marine Ecosystems

Fishery managers and scientists recognize the need to expand fishery management beyond traditional single-species planning to include ecosystem considerations. Commonly referred to as ecosystem-based management, such an approach includes, but is not limited to, interactions between key predator and prey species within an ecosystem, as well as the habitat needs of living marine resources and other limiting factors in the environment. This concept supports the precautionary approach to fishery conservation, especially when the ecosystem effects of fishing are uncertain. The precautionary approach requires managers to act to avoid likely harm before causes and effects are clearly established.

It is widely believed that some fishery declines and difficulties in restoring overfished populations are due, at least in part, to fishing caused disruptions of ecosystems. Under existing law, fishery managers do have limited authority to consider ecosystem interactions, including predator-prey relationships, in management plans. The principal reason ecosystem relationships are not being adequately considered is a lack of guidance regarding the information that is needed, clear direction regarding the principles and policies that should be applied, and most importantly, how such principles and policies should be integrated into fishery management decisions.

To address these concerns, the Magnuson-Stevens Act should be amended to:

- require councils to develop a Fishery Ecosystem Plan (FEP) for each major ecosystem within their jurisdiction;
- require fishery management plans or amendments to be consistent with the appropriate FEP;
- require consideration of ecosystem impacts, including predator-prey interactions when setting catch levels; and
- appropriate sufficient new funds to assist the councils and NMFS in applying ecosystem principles to fisheries research and management under the Magnuson-Stevens Act.

Establish and Fund Mandatory Fishery Observer Programs

Objective observation and data collection are vital to effectively manage marine fish and fisheries. Managers' ability to address the problems of overfishing, bycatch, and degradation of EFH can be limited by lack of accurate and reliable information on a fishing vessel's catch and bycatch. In many fisheries there is an incomplete understanding of the total catch, i.e., landed catch and discarded bycatch. Overfished stocks cannot be rebuilt if we do not understand and control all types of mortality. Minimal, but inadequate, observer coverage exists along the Atlantic Coast, the Gulf of Mexico, and the West Coast. Catch and Bycatch data is vitally important to meeting the objectives of the Magnuson-Stevens Act by promoting sustainable fishing.

To address these concerns, legislative changes are needed to:

- establish a mandatory fishery observer program for all Federally managed fisheries to collect statistically reliable catch data; and
- fund observer programs with a user fee based on value and applied to all fish landed and sold in the United States.

Reform Regional Fishery Management Councils

Although regional fishery management councils are charged with managing the nation's marine fish for all Americans, representatives of fishing interests dominate the councils. Interests of the general public, as well as non-consumptive users of marine fish, such as divers, are not adequately represented on the councils.

Marine fish are public resources and must be managed in the public trust. Decisions regarding their management should be made in the public interest, not simply the economic interest of the fishing industry. Accordingly, representatives of the public interest must sit on regional fishery management councils.

To address these concerns, the Magnuson-Stevens Act should be amended to:

- ensure that councils are more broadly representative of the public interest as they make decisions regarding the conservation and management of public resources; and
- require Governors to consult with conservation groups before nominating individuals to a council.

Conserve Atlantic Highly Migratory Species

NMFS is responsible for conserving Atlantic highly migratory species like tunas, swordfish, marlins, sailfish, and coastal and pelagic sharks. All of these species, with the exception of sharks, are also managed under multilateral agreements through the International Commission for the Conservation of Atlantic Tunas (ICCAT).

In 1990, the Magnuson-Stevens Act and Atlantic Tunas Convention Act (ATCA) were amended to preclude U.S. fishery managers from issuing regulations, which have the effect of "decreasing a quota, allocation or fishing mortality level," recommended by ICCAT. Since then, NMFS has done little more than implement ICCAT quotas and allocate them among domestic user groups. Moreover, where no ICCAT recommendations exist, no precautionary measures have been taken.

Although ICCAT sets quotas, measures to implement the quotas and minimize bycatch mortality, such as area closures and gear modifications, must be implemented through domestic regulations. NMFS, however, interprets the law to prevent the U.S. from unilaterally reducing bycatch if it would affect the ability to fill the U.S. quota.

To address these concerns, the Magnuson-Stevens Act should be amended to:

- give the U.S. greater discretion and flexibility in the conservation and management of highly migratory species; and
- repeal language that prevents or hinders the U.S. from implementing management measures that are more conservative than those recommended under international agreements.

Similarly, the ATCA should be amended to:

- remove language limiting U.S. authority to conserve highly migratory species.

Individual Fishing Quotas

Individual fishing quotas (IFQs) grant fisherman and fishing companies the privilege to catch specific amounts of fish. Congress has placed a moratorium on the submission, approval, or implementation of any plan that creates an IFQ program until October 1, 2002.

The Network supports continuing the moratorium on IFQ programs unless and until Congress adopts legislation containing standards for the design and conduct of IFQ programs to ensure that these programs enhance the conservation and management of our nation's fisheries.

Standards must be adopted that, among other things, clarify that IFQ programs:

- do not create a compensable property right;
- demonstrably provide additional and substantial conservation benefits to the fishery;
- are reviewed periodically by an independent body to determine whether the programs are meeting their conservation goals; and
- are of a set duration, not to exceed 5 years, subject to possible renewal if a program is meeting its conservation goals, provided that in any reallocation of quota shares upon a renewal, preference shall be given to those quota shareholders that are meeting or exceeding IFQ program requirements, including all conservation goals.

Keep Conservation in the Magnuson-Stevens Fishery Conservation and Management Act

Having detailed the Network's ideas for reauthorization of the Magnuson-Stevens Act, I would like to close by cautioning the Subcommittee against weakening the conservation provisions of the Act. Some in the fishing industry have argued that Congress should, among other things, amend the Act to:

- place greater emphasis on economics when developing rebuilding plans for overfished stocks;
- require mixed stock fisheries be managed as a unit;
- restrict protection of EFH to small subsets of EFH;
- establish standards for observer programs which will impede councils from establishing such programs; and
- create redundant and unnecessary scientific review requirements.

The Network feels very strongly that Congress should reject these proposals because they would significantly weaken fish conservation. Placing greater emphasis on economics over resource protection and sustainability will return us to the pre-SFA days of boom and bust fishing. If we are to have healthy, sustainable fisheries, conservation of our fish resources must come first. The simple fact is that if there are no fish, there will be no fishermen.

Nearly 5 years after passage of the SFA, we are just beginning to see some fish stocks begin to rebound. Georges Bank yellowtail flounder and haddock are two ex-

amples of stocks that are beginning to rebound after large closed areas were instituted in the mid–1990's. However, many other stocks have shown little improvement and some have continued to decline. The recent Department of Commerce Status of Stocks report clearly demonstrates this point. For the fourth year in a row, the number of stocks that are either overfished, experiencing overfishing, or both has increased. The number of fish stocks now in jeopardy jumped from 98 to 107 stocks, or 43 percent of the managed species whose status in known. Unfortunately, we know little about the status of most of the Federally managed fish stocks—78 percent of the managed species are classified as unknown. The fact that nearly half of the stocks of known status are overfished does not bode well for these unknown stocks. These dismal statistics argue for strengthening, not weakening, the conservation requirements of the Magnuson-Stevens Act.

Thank you for providing the Marine Fish Conservation Network with an opportunity to present its views on reauthorization of the Magnuson-Stevens Act. I would be happy to answer any questions you or other members of the Subcommittee may have.

Mr. GILCHREST. Thank you, Mr. Crockett.

Welcome, Dr. Houde.

STATEMENT OF DR. EDWARD D. HOUDE, PROFESSOR, UNIVERSITY OF MARYLAND CENTER FOR ENVIRONMENTAL SCIENCE, CHESAPEAKE BIOLOGICAL LABORATORY

Mr. HOUDE. Thank you, Mr. Chairman.

Mr. GILCHREST. From the beautiful Chesapeake Bay.

Mr. HOUDE. Thank you, Chairman Gilchrest and Members of the Subcommittee.

I appreciate having the chance to make some comments on science issues and needs related to the SFA and reauthorization of it. My view of the SFA is that it has had some moderate success since 1996 that many stocks are, in fact, perhaps on the road to recovery and that the science that is being applied with respect to serving the SFA certainly has increased over the years. My first experience with the councils was back in 1978, and I can remember at that time, people asked what is MSY? Ten years later, we asked why do we use MSY? And now, we are still asking how do we utilize it?

But we now know that we have to set targets, and we have to set limits, and we have to set thresholds, and we understand what biological reference points are so that the science and the assessment models that are being applied certainly have improved, and I don't think there has been enough time since 1996 to fully evaluate the effect of the SFA amendments, but I am moderately optimistic. There is evidence of recoveries in a number of fisheries, although there are lots of discouraging cases as well, particularly in the Northeast and West Coast groundfish fisheries, reefish fisheries.

With respect to essential fish habitat, I have to echo some of the concerns of my friend Lee Crockett. The SFA emphasis on identifying and defining was good, but it didn't go far enough. There are no explicit actions that are mandated in the SFA. A big effort, nevertheless, ensued to categorize habitats and life-state specific concerns. Habitat areas of particular concern also were specifically identified, but reauthorization should consider more specific guidance with respect to application of EFH standards.

Should there be a national standard on EFH? That is something which I think should be discussed and debated.

Individual fishing quotas: the National Academy of Sciences undertook a study in 1999. I think that I have read much about the advantages and disadvantages of IFQs as you have, but the consensus among most of the economists and fishery scientists is that positive benefits can be derived from allocating shares of quota and privileges to harvests. The NAS study is guardedly positive on this, recognizing the disadvantages. Lifting moratoria, from my point of view, is desirable, and discretionary use of IFQs by councils probably should be allowed according to the NAS report. Some fisheries could benefit as a good way to control capacity in fisheries; it potentially has ecosystem benefits, as, of course, social and economic implications that need to be discussed.

I had an opportunity to chair an NAS panel on marine protected areas. We concluded that for fisheries, marine protected areas are a tool but not a solution; they can be a part of broader fishery management that perhaps ought to be instituted. The Presidential executive order last May reinforces that idea of establishing networks and zones. Zones and networks within a broader coastal ocean management scheme that would benefit fisheries certainly seem possible. Benefits, nursery functions of selected habitats, habitat protection of key and critical habitats, bycatch reduction, protection of spawning stock biomass, all of these can play a role in restoring depleted fisheries, especially for sedentary species.

We do need to know the dispersal patterns of fish to make MPAs effective, but some fish stocks, for example, West Coast rockfish, probably could benefit from the institution of marine protected areas. We know that the councils are considering MPAs now and, in fact, we have some examples, as on George's Bank, where they have been applied to advantage, although if one looks at the social and economic consequences of MPAs, those who think that the economic benefits will be immediate probably are wrong. We are talking about decadal effects on influencing the economy of fishermen at least in a positive way. We shouldn't expect to see an immediate effect.

Fishery ecosystem plans—Lee Crockett next to me was an advocate of them—the NMFS panel, which was mandated by the reauthorization of SFA, met and strongly recommended fishery ecosystem plans be developed by each council. This would be an umbrella document within which the FMPs must sit, one that defined the ecosystem, described it, described the key resources and habitats, the important food webs, key predator-prey relationships and the critical functions and processes in ecosystems. FMPs should fit into this overall FEP.

This would require action in the SFA reauthorization process, perhaps Congressional action, and I think most people in the scientific community would recommend it.

Summing up, there are lots of data needs, and the NAS data report specifically outlines them and assigns things that Congress and NMFS and the councils can do. There is a long list in my written testimony that you could refer to. There are manpower issues in science, quantitative fishery scientists are in short supply; independent review of fishery management plans is difficult to undertake because there are so few people with strong quantitative training. Council staffs perhaps need to be boosted with people

with a strong quantitative training. We are in a Catch 22. Virtually all U.S. citizens who obtain a Ph.D. in quantitative fishery science are hired by the NMFS.

This is good, but who is going to train the next generation of quantitative fishery scientists? In summary, I refer to Pamela Mace's superb 1997 paper on the state of marine fisheries globally. In her order of priorities, she ranks the science needs lower than social and economic needs in restoring fisheries to their important role in our economy. She says inadequate national policies, inadequate institutions and other mechanisms, inadequate data and statistics, inadequate or inappropriate management goals and inadequate science, all of these are issues that need to be addressed in an SFA reauthorization.

I urge you to keep them in mind as you move forward in reauthorizing the Fishery Conservation and Management Act.

[The prepared statement of Mr. Houde follows:]

Statement of Edward D. Houde, Professor, University of Maryland Center for Environmental Science

Magnuson Act in its original and amended forms has been in effect for more than 25 years. Fisheries management under the Sustainable Fisheries Act must be undertaken using the best available scientific information. From the outset, it was recognized that knowledge of many fished stocks was incomplete. Basic knowledge of biology sometimes was lacking; understanding of population dynamics and estimates of abundance, mortality rates, and production potential often were completely lacking. In the 1970's there already was a sense that management dependent on defining a Maximum Sustainable Yield, which assumes that the productivity of a fished stock is a function only of the stock's biomass, was insufficient. Nevertheless, this easily calculated, objective criterion became the standard by which management measures were gauged. MSY still remains an important reference point in management of U.S. fish stocks in the Exclusive Economic Zone, although not usually the target that it once was. In the early days of the Magnuson Act, most members of Scientific and Statistical Committees that advised the Councils struggled to understand MSY and few on the Councils understood the concept. The SSCs and the Councils have grown in knowledge and sophistication about fisheries principles and concepts in the ensuing 20 years. We now understand the MSY concept, know that it is insufficient as a management standard and target reference point, but we also now recognize how complex fish population biology is, especially when effects of fishing are added to the mix of environmental variability that is common in marine ecosystems.

The science and technology associated with stock assessments certainly has advanced since implementation of the Magnuson Act and has continued to improve since reauthorization in 1996. The evolution of stock assessment modeling has been particularly significant. A recent National Academy of Science report (NAS, 1998) noted that assessment methods are relatively reliable and robust when the data on abundances are reliable. The caveat is important. The conclusion in the 1998 report was supported by a second NAS report (NAS, 2000a) on marine fisheries data collection that urged Congress, NMFS and the Regional Councils to standardize, upgrade and improve the methods to collect, manage and use data as an important step toward improving stock assessments and management based upon assessments. Stock assessments are far from perfect and are dogged by uncertainties that concern fishers and managers alike. The quality of assessment models, however, is not the major problem in reliably managing fish stocks under the SFA.

The fraction of overfished stocks in the U.S. fisheries is similar to that reported globally (25–30 percent). A smaller fraction of these stocks is near collapse and requires draconian measures to stabilize them and restore them. Restoration may take decades for some stocks, even under the best restoration scenarios. NOAA/NMFS reports in recent years have indicated an increase in the number of identified overfished stocks, but those increases are mostly a consequence of better stock assessments that have now categorized stocks that were previously uncategorized (the majority of stocks) as overfished. There has been no dramatic shift in numbers of overfished stocks since 1996. There is reason to believe that management can be effective under the SFA and improve the status of many heavily exploited stocks.

Specific guidelines for rebuilding of overfished stocks were provided in the amended SFA. In the most recent years, Councils have tried to follow these guidelines, but in most cases stock rebuilding is still underway and success cannot be judged yet. I am cautiously optimistic that the new paradigms of fisheries management that became prevalent in the 1990's on a global scale will be beneficial to U.S. fisheries and will stabilize overfished stocks, successfully rebuilding many of them.

The new paradigms, which are recognized in the amended SFA hinge on the precautionary approach to resource management that has been adopted as a standard globally (FAO 1995). Is this paradigm worth more than the vast amount of press that it has generated? Does the approach guide management actions that are being implemented by the Regional Councils? My sense is that the ethic espoused in this approach, which advocates risk-averse targets as biological reference points relative to those recommended historically, is accepted in principle and is being applied in amendments to many FMPs. There has been a notable shift toward setting fishing mortality rates and target spawning stock biomasses at levels that provide opportunity for overfished stocks to recover. U.S. scientists have taken a lead in developing criteria for setting risk-averse biological reference points to restore stocks that are overfished and to protect stocks at higher abundance levels (e.g. Restrepo and Powers 1999). I know of no dramatic recoveries in stocks since 1996 (there has not been enough time), but it is probable that reference points, targets, and limits on fishing mortality and spawning stock biomasses that have been set since implementation of the amended SFA will reverse stock declines in many fisheries.

Inclusion of specific language in the present Magnuson-Stevens SFA reauthorization process that addresses selection of target biological reference points relative to the broader range of reference points that could be selected will be useful to the Councils. Many FMPs already are being revised with precautionary fishing mortality and spawning-stock biomass targets specified. In this context, it is interesting to note that the NAS report Sustaining Marine Fisheries specifically advised that the first step in moving toward ecosystem-based approaches to fisheries management was to respect the uncertainties in behavior of marine ecosystems and set conservative fishing targets in single-species fisheries (NAS 1999a), thus relieving stress to the individual exploited stocks that often are key constituents of ecosystems.

The SFA (1996) contains specific language on Essential Fish Habitat (EFH), directing Councils to identify such habitats in their respective FMPs and presumably to implement measures to protect such habitats to insure healthy fisheries. The definition of EFH as it now stands is so broad that it is questionably useful in the management process. Some additional thinking is necessary, to be followed by more specific language on EFH in a reauthorized SFA. I am not certain that a specific National Standard needs to be added to the SFA in the present reauthorization, but this possibility should be considered. The EFH concept has stimulated a flurry of scientific activity directed toward understanding habitat issues in the past few years that should be useful in developing criteria and standards for FMPs.

On a global basis, social scientists and economists have recognized the need to control burgeoning effort and excess fishing capacity by restricting the open-access privilege to fish. Limiting entry and establishing individual fishing quotas (IFQs) have been debated vigorously (e.g. Hanna et al. 2000). A NAS study, requested in the SFA (1996) reauthorization was guardedly positive on the role of IFQs and recommended that they be allowed in specific fisheries at the discretion of the Regional Councils. The accumulated evidence from a scientific perspective supports the implementation of IFQ management under appropriate circumstances, recognizing the need to consider initial allocation of shares, the threat of monopolies developing, and the rules for transfer and duration of IFQ permits. Benefits of IFQs in addition to controls on effort (and fishing mortality) are probable. IFQ-based management is potentially more ecosystem friendly than unrestricted participation in some fisheries. This may be true, for example, with respect to fishing impacts on habitat and with respect to bycatch reduction. I believe that Congress should allow IFQs as a management approach in a reauthorized SFA. I am sensitive to the arguments against this approach, but the evidence is strong that IFQs can benefit some fisheries. The Councils should have the possibility to implement them in appropriate situations.

The NAS undertook a study on the Community Development Quota Program in Alaska in response to a request of the 1996 Magnuson-Stevens reauthorization (NAS 1999b), concluding that this community-based experiment in managing and allocating fisheries resources is succeeding, bringing both social and economic benefits. In a broader context, consideration of other community-based management and shared management approaches that actively involve stakeholders seems justified and a means to promote equitability in fisheries. I am no expert on this approach, but the reauthorization process needs to address co-management and its potential,

especially its relationship to and role that it can play with respect to traditional, more centralized authority vested in management by the Federal Government and the Regional Councils.

There is a growing worry that fisheries management is too little concerned with marine ecosystems, their stability, variability, and the sustainability of high productivity that will assure sustainable and profitable fisheries. The amended SFA (1996) recognized this concern. Accordingly, Congress mandated that an Ecosystems Principles Advisory Panel be established to undertake an analysis of the extent to which ecosystem principles were being applied in fisheries and to recommend actions that should be undertaken by the Secretary of Commerce and Congress to expand application of ecosystem principles in fisheries management. The report of the Panel (NMFS, 1999) includes many specific recommendations and a major conceptual recommendation—the proposal that each Council develop a Fishery Ecosystem Plan(s) within their regions. A FEP is envisioned to be a document that serves as an umbrella under which individual FMPs would reside and to which they must adhere. If adopted, many individual FMPs would be more ecosystem-sensitive. The function and structure of ecosystems would be at the center of concern with respect to management of the ecosystem's constituent fisheries. The recommendations of the Panel, listed below, should be debated and seriously considered for inclusion in a reauthorized SFA:

Develop a Fisheries Ecosystem Plan

- Delineate the geographic extent of the ecosystem(s) that occur(s) within Council authority, including characterization of the biological, chemical, and physical dynamics of those ecosystems, and zone the area for alternative uses.
- Develop a conceptual model of the food web.
- Describe the habitat needs of different life history stages for all plants and animals that represent the significant food web and how they are considered in conservation and management measures.
- Calculate total removals—including incidental mortality—and show how they relate to standing biomass, production, optimum yields, natural mortality, and trophic structure.
- Assess how uncertainty is characterized and what kind of buffers against uncertainty are included in conservation and management actions.
- Develop indices of ecosystem health as targets for management.
- Describe available long-term monitoring data and how they are used.
- Assess the ecological, human, and institutional elements of the ecosystem which most significantly affect fisheries, and are outside Council/Department of Commerce (DOC) authority. Included should be a strategy to address those influences in order to achieve both FMP and FEP objectives.

Measures to Implement FEPs

- Encourage the Councils to apply ecosystem principles, goals, and policies to ongoing activities.
- Provide training to Council members and staff.
- Prepare guidelines for FEPs.
- Develop demonstration FEPs.
- Provide oversight to ensure development of and compliance with FEPs.
- Enact legislation requiring FEPs.

Research Required to Support Management

- Determine the ecosystem effects of fishing.
- Monitor trends and dynamics in marine ecosystems (ECOWATCH).
- Explore ecosystem-based approaches to governance.

The Ecosystems Panel recognized the potential benefits of Marine Protected Areas, some of which could be Marine Reserves that would prohibit fishing. Closed area management is not new in fisheries but has been used rather sparingly. The concept of closed areas, with various restrictions on fishing, was recognized in the 1996 reauthorization (SFA, 1996) and has been on the planning tables of Regional Councils in recent years. Some areas have, in fact, been closed to many kinds of fishing effort (e.g. parts of Georges Bank). A detailed study of MPAs by the NAS (2001) broadly evaluated their potential, including their use as a tool in fisheries management. The NAS Committee concluded that MPAs did have a role in fisheries management. In the broadest sense, setting aside areas to protect spawning stock can serve as buffers against the uncertainties of accurate stock assessments, a kind of insurance. More specifically, the Committee recommended that MPAs for fisheries conservation should be designed as parts of broader networks of MPAs that are zoned for permitted activities, with the networks included in a broader plan of coastal ocean management that considers the full spectrum of human activities and need

to protect ecosystem structure and function. The NAS Committee recognized and emphasized that stakeholders (fishers) must be included in every stage of MPA development, from discussion of concept through design, and continuing into the evaluation and monitoring phase after implementation. The Committee did not specify any particular size or numbers of MPAs that would be required to benefit fisheries management, believing that each region or case would have to be considered individually. If MPAs become a significant tool in fisheries management, they will represent a shift in emphasis from traditional management measures that seek to control catch levels and fishing effort (amounts or types) toward an emphasis on managing the spatial components of ecosystems for specific benefits to fisheries and fish stocks. Management that includes MPAs as a tool may have particular benefits in meeting EFH goals, in reducing damage to unique habitats from fishing, in reducing bycatch of young fish, in protecting endangered or threatened species, and in conserving biodiversity of marine ecosystems.

MPAs cannot be viewed as a stand-alone solution to fishery management problems. In some instances it is probable that fisheries benefits and values will outweigh the environmental costs attributable to fishing and MPAs may not be recommended from either an economic or environmental viewpoint. Language in the pending reauthorization of the SFA should address the issues of costs and benefits of not only EFH considerations, but also of the broader issue of establishment of MPAs. The urgency to do this is underscored by the Executive Order issued by President Clinton in May 2000 directing Federal agencies to develop networks of MPAs in the coastal ocean.

The issues of data availability, collection of data, and data management for stock assessment and management purposes represent key needs for improvement that should be addressed in the reauthorized SFA. The NAS Committee, in its report (NAS, 2000a) developed a comprehensive list of detailed recommendations specifically addressed to Congress, NMFS, or the Councils. Many of the same concerns also were expressed in the Heinz Center report (Hanna et al., 2000). I hope that the NAS recommendations will be considered during the SFA reauthorization process. It seems certain that implementing the recommendations will require new funding. I have consolidated and summarized some of the NAS recommendations:

- Congress and NMFS. Standardize and improve fisheries data collection and management methods and procedures nationwide. Develop a Fisheries Information System. Fund these efforts.
- Councils. Councils should be more proactive in determining needs and requesting appropriate data and models to improve potential for success in management. This recommendation is applicable to both commercial and recreational fisheries.
- Congress. Make commercial fisheries data more accessible to agencies for stock assessment scientists by amending laws relevant to confidentiality.
- NMFS. Develop more cost-effective ways to collect and manage data, including data collected for recreational fisheries in the MRFSS surveys.
- NMFS. Develop new data collection and stock-assessment methods, including those that consider ecosystem functions and processes, habitats, and environmental variability.
- NMFS. Involve stakeholders (fishers) in the data identification and collection processes more than at present. Better cooperation with stakeholders will improve quality of data. Reports of data analysis and assessments should be made available to stakeholders on a regular basis.
- Congress and NMFS. Insure that NOAA has a strong and capable fleet of research and survey vessels for fisheries data collection and assessment.
- Congress and NMFS. Increase the level of observer coverage on fishing vessels to improve data collection and interpretation.
- Congress, NMFS and Councils. Institute better and more complete monitoring and evaluation of marine ecosystems and EFH. Build this information into stock assessments.
- NMFS and Councils. Scientific review of stock assessments by independent scientists is important. Add stock assessment experts to Council staffs.

Many of the recommendations in the bulleted statements above will require significant increased funding and also additional staff and personnel trained in quantitative fisheries science, economics, and sociology. At present, NMFS cannot meet its demand for stock assessment specialists and has too few social scientists and economists on its staff to effectively provide management information and advice to the Councils. A NAS workshop (NAS 2000b) on manpower needs in NMFS explored the need for such experts and made recommendations to NMFS that may help recruit new talent. However, it is not certain that such needs can be met in the short term without significant stimulation of effort and funding by Congress. Further-

more, the needs for stock assessment experts and socioeconomic experts on Council staffs and in academia (to train the new wave of experts) is problematic, a kind of Catch–22 since virtually all experts in quantitative fisheries science at the Ph.D. level who are U.S. citizens now take positions in NMFS, leaving a minuscule pool of talent for Council staffs or for academic institutions to recruit into faculty ranks.

The shortage of scientists with strong quantitative skills in fisheries also results in a reduced pool of independent reviewers of stock assessments and other technical elements of FMPs. Each Council is required to maintain a Scientific and Statistical Committee. Included on SSCs is a small cadre of quantitative scientists that is burdened repeatedly to review stock assessments by some Councils. However, the eight Councils do not use the SSCs in any uniform fashion. There is a need to increase the pool of experts, but also to move toward standardizing the process by which SSCs review technical components of FMPs and provide advice to the Councils.

There are many science-related issues that should be addressed in the reauthorization process. The problems of fisheries science and management, and recommendations to solve them, were superbly documented by Pamela Mace in her keynote address at the 2nd World Fisheries Congress (Mace, 1997). Mace's essay is global in scope, but most of the issues she addresses are relevant to U.S. fisheries. Mace (1997) believes that overcapacity is the single largest problem in fisheries management on a global basis, and that control of excess effort is essential to have healthy fisheries. Also, she states, I contend that, to date, lack of national policies and institutional failures have been more limiting than science, management or data. Sound national and international policy and effective institutions are essential for providing the necessary environment to foster good science, management and data collection programmes. I agree with that statement. Mace (1997) lists the inadequacies of science and management that need to be addressed in developing overall fisheries management programs. The order of presentation represents the relative magnitude of the problem in her view:

- Inadequate national policies and international standards.
- Inadequate institutions and other mechanisms for involving stakeholders.
- Inadequate data and statistics.
- Inadequate or inappropriate management goals.
- Inadequate science.

As the SFA reauthorization process moves forward, it is appropriate that these inadequacies be kept in mind and addressed. The reauthorization process offers an opportunity to improve the SFA and marine fisheries performance. I am reasonably optimistic that an amended SFA can be a major element in the long-term prospects for revitalization of U.S. fisheries.

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Mr. GILCHREST. Thank you very much, Dr. Houde.

I will yield first to the gentleman from New Jersey for any questions he may have, Mr. Saxton.

Mr. SAXTON. Mr. Chairman, I have two questions, both of which—none of which will be a surprise to anyone in the room. In the purposes of the Magnuson Act, purpose number one is to take immediate action to conserve and manage the fisheries resources found on the coasts of the United States, and it goes on from there, but that is kind of the introductory phrase in purpose number one. And then, when we get over to purpose number six, it says to encourage the development of the United States fishing industry of fisheries which are currently underutilized or not utilized by United States fishermen.

Let me suggest that I think that there has been demonstrated a conflict between those two provisions in terms of purposes in this act, and I think that is demonstrated to the detriment of commercial fishermen; to the detriment of recreational fishermen and to the dismay of conservationists, and I don't ask this question to suggest that anyone is to blame for this. We wrote the law, and NMFS implements it, and Members of this Committee observe it, and members of the conservation community and the fishing community comment on it.

But the fact of the matter is that the process involving those two provisions of this law provided for the development of utilization or utilization of various fisheries around the coastal United States in a very distinguishing pattern. We encouraged the development of the ground fish fishery in New England, and it collapsed. We encouraged the development of the shark fishery in the Atlantic, and today, the shark population is down to an estimated 80 percent of what it was at one time.

We encouraged the development of the redfish fishery in the Gulf of Mexico, and it collapsed, and then, we applauded when it recovered after conservation measures were taken. I am not as familiar with the West Coast, but my understanding is the same thing happened with the sea urchin fishery, and of course, I am very familiar with the international problems involved in the salmon fishery on the West Coast, all of which involve activities by the Congress as well as regulators, the Department of Commerce in particular, on all of these fisheries.

And so, I guess my question is wouldn't it be a worthy goal for us to try to find a different way to spell out the purposes of this bill in such a way that we would get to the point where the objectives of the Sustainable Fisheries Act are carried out more effectively by this law and help us create a more comfortable situation, a more economically feasible situation for the commercial fishery and all of the other discomfort that we create unwantingly for all

of us who are involved either from the lawmaking, regulatory or participation directly in the fishery.

Dr. Hogarth, would you like to comment particularly on these two provisions and the purposes?

Dr. HOGARTH. Well, I think part of the problem is in the way we manage fisheries. Over the years, I think we have reacted to situations rather than proacted. And if we have a problem in a fishery we are not managing as a group, we switch the fishery from one fishery to another. We don't tailor the capacity to sustainability. We look for a way to transfer the fleet as a whole. And I think we just need to do a better job of tailoring capacity to the sustainability of the fishery, and we need to be proactive and look at how we are managing the group as a whole rather than snapper grouper complex. We may manage one species and the fishery has 80 species in it. And what happens is that, in my opinion, is that you do tremendous damage to one fishery, and then, you have to find a way to switch over to another fishery.

We have put people on underutilized species, and we have caused an increase in effort, and that is what we hear. And as a Government, you told me to go fish for sharks, and now, you are telling me that I can't. And so, you financed us to get into the business; now, I feel you ought to help finance us to get out of the business. So I think we have to look at what our real goal is in fishery management in the U.S., and what do we want it to be 5 years from now and 10 years from now. What type of fishery do the citizens of this country want? And then, we have to bite the bullet and do what is necessary both recreationally and commercially.

Mr. SAXTON. Mr. Crockett?

Mr. CROCKETT. I think we agree with you that there are cross-purposes in the act and within the agency. The predecessor of the National Marine Fisheries Service (NMFS) was the Bureau of Commercial Fisheries, and for a long time, the purpose of the Magnuson Act was to promote U.S. fishing. It was to phase out foreign fishing and promote U.S. fishing. There were a number of programs, for example, loan guarantee programs and other sorts of subsidies, programs to identify underutilized species and promote them, designed to promote U.S. fishing.

The SFA, for the first time, shifted that focus from one of promoting fishing to conserving fish. That has been a painful transition, and we think it needs to continue forwards. Perhaps changing the purpose of the law will help. The fact of the matter is that if you don't have fish, you don't have fishermen. So we think you need to put fish first; conserve fish so there are fish for fishermen to catch. It is as simple as that.

Mr. SAXTON. Thank you. I am sorry. I wish I could—I am going to have to leave at this vote, and I won't be able to return. So let me just get my second question on the record. I guess it is Section 97-453 of the act, Section 303(b) has a section entitled discretionary provisions which are essentially, the way I interpret it, tools that may be used to help to carry out a fishery management plan. One is to require permits, not to require permits but the council or the Secretary may require permits; may designate zones where and periods when fishing may be limited; three is to establish specific limitations where necessary; four is to permit limit condition or re-

quire the use of specified types and quantities of fishing gear. Five is to incorporate, consistent with the national standards and other provisions of this act and any other applicable law the relevant fishery conservation and management measures of the coastal United States nearest to the fishery and so on.

Seems to me that that is a lengthy list, and I won't go on. It goes through 12 tools that can be used to help adequately manage a fishery. And yet, in respect to the highly migratory species fishery, the population levels continue to be down an estimated 70 percent for some species such as marlin; higher levels, still in the seventies, for species such as sailfish; up in the 80 percent for coastal sharks, and yet, NMFS has these tools to use, and it is hard for me to understand why NMFS has heretofore been hesitant, to be kind, to use these tools to provide for the necessary regulations to help bring these fisheries back.

Now, I know there have been some steps taken. I am very familiar with the South Atlantic and the Gulf closures, but yet, most of the scientists if not all of the scientists that I have talked to do not believe that the measures that we have taken heretofore are sufficient to provide for the Americans' share of the rebuilding of these species. Can you give me some guidance?

Dr. HOGARTH. Congressman, one of the real problems with managing highly migratory species is that basically, the U.S. is such a small player in the management of all of the highly migratory stocks. You look at that industry, it has probably less than 5 percent of the impact on most of these species. We have to manage it through the international arena, particularly through the ICCAT, International Convention for the Conservation of Atlantic Tunas.

Mr. SAXTON. Excuse me; did you do the closures through the international arena?

Dr. HOGARTH. No, what I am saying is that whatever we do in this country makes a small dent in what happens overall.

Mr. SAXTON. That is right; the United States is 5 percent of the world's population, and my understanding is that we catch 5 percent of the fish.

Dr. HOGARTH. But when you have countries that are ignoring the quotas that are set through the international arena, they exceed their quota by 100 times sometimes. And what I am saying is the impact from foreign countries is much greater than the impact of the U.S. We could shut an entire fishery down and have little impact on some of these species, and that is the problem. Even though we have closures and size limits, and this year, we will have 250 marlin, for example, that we can kill totally, there are severe restrictions.

But unless we can get international cooperation, we have a tough time.

Mr. SAXTON. I understand that we have a tough time, and I appreciate that, but the first provision in the purposes of the Magnuson Act is to conserve species.

Dr. HOGARTH. That is correct.

Mr. SAXTON. And yet, these species are down the percentages that I indicated unless you disagree with that, and yet, we don't seem to be taking any steps to alleviate those problems.

Dr. HOGARTH. Well, I think the question is we are trying to, but through the international arena is where we are not getting the cooperation. And we, as the U.S., yes, white marlin is 18 percent of its optimal yield. Blue marlin is about 29 percent. We are extremely concerned about white marlin, you know, whether we can bring it back? And what we have got to do is get countries like Spain, Japan, Honduras and these other countries, Honduras that fish on these species to practice conservation as well as we are.

We are trying to do that through compliance. We are trying to do that through embargoes, but that is a tough issue.

Mr. GILCHREST. Dr. Hogarth, we are going to have to continue this when we come back from the vote.

Dr. HOGARTH. Okay.

Mr. GILCHREST. Because we are down to about 4 minutes now. I am going to race Mr. Saxton over there and see who wins.

[Laughter.]

Mr. GILCHREST. And I apologize, because it is probable that we won't be back here for a half an hour because there are three votes. Is there anybody who can't wait until 3:30? Okay; we will have a half-hour recess.

[Recess.]

Mr. GILCHREST. Welcome back. I appreciate your patience. It was a little bit longer than we thought, but we will try to—I don't know how long this is going to go. I know that statement scares you a little bit, but let us say certainly no later than 5.

I would like to start with, I guess, Mr. LeBlanc and Mister, I think, Gilford. My train of thought has been interrupted, so I am going to try to get it back. We have discussed a number of things dealing with essential fish habitat, ecosystem management and things of that nature. A very small section of the Chesapeake Bay, although a beautiful estuary, tidal estuary, known as the Sassafras River a few years ago was potentially going to be developed with about 600 houses on about 1,000 acres, and it was a fishing area for mostly catfish but a significant number of rockfish.

An area similar to that some miles south was developed, and the fishing in that region pretty much disappeared. This area with 1,000 acres was put into a conservation easement and a number of other things were done to protect the shoreline. And there was a plan pretty much developed by the Department of Natural Resources for Maryland with the Department of Agriculture to create a better habitat for the fish and for the wildlife on the land.

Well, to make a long story short, as a result of that conservation plan, with an understanding of what the ecosystem might be like or should be, there are a lot more catfish there, and rockfish are now spawning where they didn't spawn before—in some of the tidal ponds adjacent to that estuary. So I mentioned that to somebody recently, and they said that anecdotal stories are good, but they don't tell the whole picture, upon which my reply was I have observed that little area there for more than 20 years. Part of the scientific method is observation, so the observation of that small area—if you put everything together, it was about 1,500 acres—was that you can restore someplace to its natural habitat; have conservation; have management, and the end result is more fish.

So I guess the question is—and this is a question posed because I would like your honest perspective on it so we can mix it with other opinions dealing with the essential fish habitat. What do you see as the problems with the way it is dealt with by NMFS, the way the provisions are put into the Magnuson Act, and how would you like to see them changed?

Mr. LeBlanc?

Mr. LEBLANC. Thank you, Mr. Chairman. I think that your example of this situation with the Sassafras River is a classic example of what NMFS has tried to address with their habitat areas of particular concern. You have got concrete evidence that this is a discrete unit of habitat that is sort of definable in space that makes an important contribution to fisheries productivity, and there are activities that threaten the viability of that habitat, and you can use the EFH provisions and the consultation process that the agency is required to go through to attempt to prevent the degradation of that kind of habitat, and I think with regard to the impacts of fishing activities that that is the appropriate scope is in those kinds of areas, habitat areas of particular concern.

From a commercial seafood industry's perspective, the way the councils and the agency have defined essential fish habitat is so broad that essentially the entire exclusive economic zone has been defined in one way, shape or form as essential fish habitat, and that spreads out the effort to the point that you can't implement effective measures other than to shut down all fishing in the EEZ, which I don't believe is the intent of the act.

We have not seen the councils move that kind of activity under the EFH provision, but the potential is certainly there, and of course, in the absence of taking that action, the threat of lawsuits for the failure to protect EFH as defined as the entire EEZ is a looming threat that greatly concerns us.

Mr. GILCHREST. Dr. Hogarth, can you respond to Mr. LeBlanc's concerns?

Dr. HOGARTH. It is no doubt that the essential fish habitat is pretty extensive, but what you are dealing with is over 700 species of fish that we are managing, and you are dealing with two to four life stages of each species. And so, you do have somewhat of an overlap when you look at species; if you put a mosaic, you have got quite a bit. But they have different ecological requirements, and so, essential fish habitat for croaker is somewhat different from, say, spot, but they both utilize it.

If we look at it, the essential fish habitat for most species, is now probably about 50 to 70 percent of the habitat, but it is not all bottom. Some of it is water surface. But it is pretty extensive. Now, what we are trying to do is to refine that. We have an interim rule out now on essential fish habitat, and we have had many hearings in 270 days of public comment period, and have received lots of comments.

And so, now, we are trying to work with the councils and refine it. That final rule will probably be out sometime in the next couple months, we hope, but we are trying to refine it and to then take a look at for example, what kind of activities affect the various types of bottom habitat. But essential fish habitat is really the essential areas, as it says, to support these fish populations. You

have to protect spawning areas, and you may have a different area for the juveniles and different life stages.

So when you have 700 species, two to four life stages and the different—

Mr. GILCHREST. I see. It is pretty complex.

Dr. HOGARTH. It is pretty complex.

Mr. GILCHREST. Dr. Gilford, you mention in your testimony that you would like to modify the definition of essential fish habitat. How would you like to modify it?

Mr. GILFORD. I don't think it is so much a question of modifying it as making it a little bit more definite. What is it we are trying to accomplish with the essential fish habitat? And what the councils—

Mr. GILCHREST. Could I stop you there just for a second? And I am not going to be too long, Walter. I know you have some questions. Could you respond just to that part of the statement, Dr. Hogarth, what do you want to accomplish with essential fish habitat?

Dr. HOGARTH. We want to determine the areas that are, like I said, essential to the growth and reproduction of the marine species that we are trying to manage. I think that is what we are trying to protect. Some, we do know are more sensitive than others, such as coral reefs and some others that are more sensitive, so they are the habitat areas of particular concern that takes EFH a step further.

Mr. GILCHREST. I see.

I am sorry, Dr. Gilford. I didn't mean to interrupt you.

Mr. GILFORD. What the council chairs were concerned about was having a more definitive set of guidelines to help them designate, define and designate essential fish habitat, and that was basically the essence of the comment I was making. Certainly, we recognize there is a need for a habitat for spawning; that spawning grounds are necessary; that there is habitat for nursery areas; that there is habitat for the movement back and forth for migration, but when you are looking at such a tremendous area, without some more firm guidance as to what is anticipated and expected, it is difficult for the councils basically to respond.

There is no question that the issues that have been raised before, I find it hard to believe that water is not an essential fish habitat; they don't do very well out of water.

[Laughter.]

Mr. GILFORD. And so, you know, consequently, to run that kind of wide, broad opportunity to interpret, and what the councils were looking for was a tighter set of guidelines so that they could direct their efforts to accomplish what the legislation really intended to get at.

Mr. GILCHREST. Thank you, Dr. Gilford.

I yield to Mr. Jones for any questions he might have.

Mr. JONES. Mr. Chairman, thank you, and I just have two or three, and I first of all want to thank you for your leadership. You have certainly been one of those in the Congress for the years that I have been here, which is beginning the seventh year; you have certainly been a leader on this issue, and I want to thank you personally and in front of this group today.

Dr. Hogarth, tell me what year you were director in North Carolina. I was looking at your resume, and I know they were exciting times for you, and I just want to remember the year.

[Laughter.]

Dr. HOGARTH. 1986 to 1994.

Mr. JONES. Okay; I mention that because obviously, being from North Carolina, and I truly thought you did a great job. You were under a lot of political heat, and I think you handled it very well, and you did what you thought was right for the stock. So I want to compliment you at this time as I did the Chairman.

What I would like to ask, you know my district well, and you know that commercial as well as recreational fishing is extremely important to the Third District of North Carolina. And it seems like every so often, like dealing with the striped bass, which I think is a great success story about how the stocks have come back, but I wonder, because questions are asked of me: when the stocks reach the quota that you have established to make sure that the stocks will be protected for years ahead, why the fishermen seem to always have to be challenging National Marine Fisheries as to when you are going to open it back up.

For example, and please correct me if I am wrong, but I understand that striped bass can be fished in the state waters, but they cannot be fished in the Federal waters; is that correct?

Dr. HOGARTH. That is correct.

Mr. JONES. Would you tell me why it is that way?

Dr. HOGARTH. Okay; first of all, thank you for your kind comments. North Carolina was an interesting place. Still is.

[Laughter.]

Dr. HOGARTH. I enjoyed almost 9 years there.

Probably the striped bass is a success story, and it was done not under the Magnuson, but it was done under the Atlantic Striped Bass Conservation Act, and basically, the lead for that was the Atlantic States Marine Fisheries Commission (ASMFC), and it has been the lead for recovery. When doing the recovery, we were asked to close the exclusive economy zone (EEZ) as part of the management, because there were different management schemes from state to state, and it was very difficult to enforce or to manage having the EEZ open.

To be honest with you, as I have always tried to be honest, we did try to open the EEZ when I first came up here in 1994 or 1995, and pretty much, we were told by Congress if you open it, we will close it. I think it has pretty much been left where it is right now, to be honest with you. And it is somewhat because there are a lot of the large fish, a lot of your bigger spawners offshore, and it is very difficult when the states are managing with different size limits from state to state, and different seasons. It is very difficult to enforce when you have got the EEZ open, where size limits are something different.

One way to do that, I think, is to let the states manage it totally from a landing law and if the EEZ is open, they could have a landing law; we would not be involved. It is an issue that I think could be looked at. We are not opposed to how you manage striped bass. I mean, we will cooperate with the ASMFC and manage it.

Mr. JONES. Would you suggest to this Committee that in the rewrite, they look for a legislative fix to this dilemma?

Dr. HOGARTH. Congressman, I hate to see Congress manage fisheries. I think we should do the job, and I think it is probably up to us to get with the ASMFC and put this on the agenda, and, if we need to have scoping meetings or public hearings, look at the issue up and down the coast to find out what is the will of the people. I really think we could do that. But if you want to legislate it, we will carry it out.

Mr. JONES. No, I would rather not have more laws, but let me also—did you not recently, the National Marine Fisheries Service, reach some satisfactory conclusion to the issue dealing with summer flounder? I think there was a lawsuit filed over that issue.

Dr. HOGARTH. Yes, sir. Yesterday, we had a meeting with the plaintiffs in the lawsuit and with the Atlantic States Marine Fisheries Commission, and we now have reached agreement. The plaintiffs are dropping the lawsuit. We have a comparable regulation from the council to the ASMFC. We are setting up through the Heinz Center here in this area a facilitative process to look further at how to manage summer flounder, particularly when you have a joint plan with the ASMFC, which is the only commission that has regulatory authority through the Atlantic Coastal Act and then the councils.

There are some differences of standards and guidelines that have to be met, but we are going to get together and bring the recreational, commercial and environmental groups to the ASMFC and the Federal people in a facilitated hearing as quickly as we can do it to look at the process to prevent this from happening again.

Mr. JONES. You are a brave person.

Dr. HOGARTH. We can do it.

Mr. JONES. Mr. Chairman, I know my time is up. I want to ask one more question.

Dr. Hogarth, why do you feel that there has been such a proliferation of lawsuits since the Sustainable Fisheries Act passed? You know, I have been on several—I was on the Small Business Committee at one time up here and then on the Resources Committee the 7 years I have been here, and I realize the responsibilities that you and others at this panel have, but it seems like too many times—and I appreciate what you said just a moment ago about the resolution to the lawsuit dealing with the summer flounder, but it seems like too many times that the only way there is a resolution is because somebody has filed a lawsuit, and that costs a lot of money.

And I am always concerned, whether it be an environmental group or a commercial fishing group; it does not matter whether they are liberal or conservative, whatever, that to get a resolution that I feel should be able to be worked out without a lawsuit between the agencies and the people or the agencies and the group. And when I think about the number of lawsuits, I think my staff has told me that approximately 110 current cases since the Sustainable Fisheries Act passed, and I just think that might indicate that maybe there is not that willingness when you can work out a satisfactory solution—sometimes, you cannot, because you have got to enforce the law as you see it.

Dr. HOGARTH. Congressman, I think the reason for the lawsuits is somewhat complex, but I think it is not just the Sustainable Fisheries Act. I think one of the biggest ones right now is the Endangered Species Act. What has happened now, I think there are people who would like to see things done or things protected to a large extent. There are others who think we have done too much, and I think what has happened in this process is it is very easy to get a judge to listen to these types of cases when you have not done enough to protect sea turtles, or the flip side if you do a biological opinion, and you say you have got to shut down the swordfish fishery; you have the commercial industry that, has a great impact, and so, you get lawsuits.

I do not know how we stop that from the Endangered Species Act standpoint. Regulatory effects have caused some problems. The Magnuson-Stevens Act, I think, has about 34 lawsuits. Concerning the Marine Mammal Protection Act, there are some things in there that we get lawsuits on, such as the impact on right whales. Also, we have porpoises in Florida that people are feeding, and we have had children bitten, so you have to enforce that.

So I think it is a sign of the times, but I do think we have to try to figure a way to negotiate when we get some of these lawsuits and see if we can settle them. It is tough. It costs us a lot of money as an agency. It costs a lot of time, and I am not sure that it is helping to rebuild fish population or even the endangered species.

I am firmly convinced that we are making progress right now rebuilding fisheries, but we are getting tied up in knots with the Endangered Species Act, particularly with Pacific sea turtles and East Coast sea turtles. In the next two to 3 years, in my opinion, this is going to be a major issue, but when you get your largest fishery in the world shut down for stellar sea lions and the whole State of Hawaii shut down for sea turtles, it just brings about lawsuits. I don't know how you stop that.

Mr. JONES. I don't either, and I guess that there are many of us in the Congress on both sides of the political fence that would like to see a rewrite of the Endangered Species Act and use more of sound science, so to speak, as it deals with some of the species that maybe at one time were endangered but now are not, and in my district and throughout the south, the piping plover has created a lot of interest and, in many cases, a lot of problems for the citizen, but Mr. Chairman, with that, I have got two or three other questions I would like to submit, and if they could—Dr. Gilford and Dr. Hogarth could answer, I would appreciate it at that time.

Mr. GILCHREST. Do you want to ask some more questions?

Mr. JONES. I have got to go to an MWR, Morale, Welfare and Recreation panel hearing.

Mr. GILCHREST. Oh, do you want to ask your questions now, Walter, or do you want to submit them for the record?

Mr. JONES. I am just going to submit them if that is okay.

Mr. GILCHREST. That is fine, Walter.

Mr. JONES. Thank you.

Mr. GILCHREST. And I appreciate the gentleman from North Carolina coming, and we have piping plovers in Maryland also, and we are trying to protect those little critters as you are also. And

we will submit those questions for the record, Mr. Jones, and try to get some answers back as quick as we can.

I just have a few more questions. I would like to continue on the line of thinking of essential fish habitat and ask Dr. Houde if you would comment on your perspective of the need to establish some type of—whether it is a definition or a guideline—for essential fish habitat that would be useful for a council to implement. And do you see any connection between the concept of essential fish habitat and marine protected areas?

Mr. HOUDE. Yes; thank you, Mr. Chairman. I go back to your earlier comment about the area that you are familiar with on the Chesapeake Bay, and you noted that taking the right measures to protect the shoreline and to protect the estuary from development resulted in higher fish productivity and better fishing. If we go into freshwater habitats, I think we find it even easier to define those particular areas that are critical for particular life activities of fishes.

As we move out onto the continental shelf, where the SFA is applied in the economic zone, 3 to 200 miles, it becomes increasingly more difficult to define what areas are critical to species. Species have larger ranges. They can use more habitat. There are areas that are preferred over others, but these species can adapt, in many cases, to a wide range of habitats.

Nevertheless, there are some areas, particularly hard bottom areas, coral reef areas, the kinds of areas that are required as nurseries, for instance, for young groundfish that can be identified. I think specific guidelines could be written into the SFA or documents that would support it that would define particular kinds of habitats for particular species groups that are related to important life activities like the spawning habitats that are required; nursery habitats that are required; that this probably could be done; probably would be desirable.

As I have read the SFA, I don't think that there are any prescribed actions associated with the EFH right now, and that, to me, is where there has been a lack of attention. I think that some of the councils and the NMFS staff have put together some quite good comprehensive documents that define habitat for particular species or species groups or in a generic way in this, but they don't seem to lead to any actions. They don't have any prescriptions to do anything.

I am sorry, sir?

Mr. GILCHREST. No, go ahead.

Mr. HOUDE. I was going to say something about MPAs. I think that marine protected areas, you know, can be set up for a variety of reasons. Some that we addressed in our study were related more to protecting marine biodiversity; to protecting unique features and habitats in the sea, but certainly, to promote fishing was one of the big reasons that one would want to establish MPAs, and there were a few aspects of setting up MPAs that would seem to be particularly effective to link them to essential fish habitat, and these are to identify those areas that are nursery areas for fish, areas where you could protect young fish and clearly show that you would protect fish when they are growing fast to give bigger yields and to promote and restore fisheries; that this would be one kind of link-

age between essential fish habitat and setting up MPAs that should be, I think, very effective in many cases.

Areas where you would want to protect spawning stock biomass for those fishes that are very much overfished; for sedentary fishes, those that tend to be long-lived like Pacific rockfishes, defining essential fish habitat and creating MPAs perhaps in networks, but in the case of rockfishes, there are some 60 or 80 species of them. No one protected area or small, defined habitat is going to protect them all. It would have to be a network that was constructed; could be effective.

Mr. GILCHREST. Dr. Houde, if I could just interrupt for a second, and then, I want to come back to you: Dr. Gilford, you mentioned in your proposed reforms or changes for the councils to modify or to come up with some specific guidance for essential fish habitat. Do you think there is enough information? Does the Mid-Atlantic Council have access to the kind of information that could establish nursery areas, spawning stock biomass areas that are overfished in coordination with a marine protected area and understanding the concept of essential fish habitat? Does the council have access to that kind of information where you could then—the council itself could define, or maybe they have defined, what is essential fish habitat and then what might be a useful marine protected area?

Mr. GILFORD. The basic problem with the essential fish habitat from my point of view—I can't speak for all of the council chairmen, because I am sure they have different concerns—the major concern that the council chairmen had was some clear guidelines, some tighter guidelines as to what was to constitute essential fish habitat. From my perspective, the problem that I see with it is the interpretation of the data that is available to us.

Let us take nursery areas. Do we identify each nursery area as essential fish habitat? And then, having done that, what is it we are going to do with that? Now, there is no question that that is an advantage to us. Our council has used information of that type in working with the Corps of Engineers in the Chesapeake Bay to prevent the permitting of a pier and dock that was going to be put right in an area which was an essential nursery area.

Mr. GILCHREST. Where was that?

Mr. GILFORD. In the Chesapeake Bay, near the—I don't recall exactly which location it was, but it was in the Chesapeake Bay. The problem that we have is that you have data that is incomplete. How do you use it? How do you interpret it? Do you interpret it in a risk-averse fashion, or do you say we won't do anything with that until we have more information?

So we were looking for guidelines to tell us to what extent we would pursue identifying and defining areas as being essential fish habitat. It is a question of trying to satisfy the intent of the legislation and to satisfy the interpretation that the National Marine Fisheries Service put on that legislation. It is not a problem of being concerned about essential fish habitat. That is almost, if you excuse the expression, a no-brainer. But yes, the essential fish habitat is just that: it is essential. The fish have to have certain requirements for growth, spawning, breeding, migration.

The issue comes down to is every piece of aquatic habitat that is used for spawning and breeding and growing, maturing and feed-

ing, going to be identified as essential fish habitat, and what are we going to do with that essential fish habitat, having identified it as such?

Mr. GILCHREST. Well, Dr. Gilford, would you like to see the Congress set specific essential fish habitat guidelines in the reauthorization, or would you like to see us give direction to Dr. Hogarth to establish specific guidelines?

Mr. GILFORD. I think that my preference would be to see specific guidance given to the National Marine Fisheries Service to establish that, yes.

Mr. GILCHREST. Mr. Crockett?

Mr. CROCKETT. Thank you, Mr. Chairman. I think you know in a past life I worked for NMFS on an essential fish habitat. I helped draft the regulations. And one of the things that we found during that process was that there isn't a great deal of knowledge on the habitat requirements of many of these fish species. Dr. Hogarth mentioned how many there are and how many life stages there are. There also isn't a great deal of data, especially on the locations of the habitat when you get in Federal waters.

And so, what we tried to do was provide councils with flexibility that recognized that there was lots of different species with different habitat requirements in different areas. We tried to provide guidance that was flexible enough to allow the identification for all of those species, given the fact that there isn't great data out there. And what the councils chose to do was to use it in a precautionary manner.

I will give you an example. In Dr. Gilford's council, that council was provided information from the Northeast Fisheries Science Center that would have enabled them to identify only 50 percent of the habitat for many of these managed species as essential habitat. They are fortunate in that they were in one of the locations in the country where there is a long data set from the Northeast Fisheries Science Center.

That council had alternatives: 50 percent, 75 percent and 90 percent, and it chose to identify 90 percent of the habitat as essential. I find it kind of interesting now that the council chairs are asking for further guidance when they had opportunities initially to identify much narrower areas as essential fish habitat. I will give you another example on the West Coast. That council was provided with a recommendation by the National Marine Fisheries Service that salmon EFH shouldn't extend past 60 kilometers offshore, which is about 37 miles. The council decided to identify salmon EFH all the way out to the boundaries of the EEZ.

So again, another example where they chose to identify broader areas.

Mr. GILCHREST. Are you saying the council had the option to identify a much more narrow scope—

Mr. CROCKETT. Yes.

Mr. GILCHREST. —of essential fish habitat.

Mr. CROCKETT. And they chose to identify it in a broader manner, because as I understand their concerns, and my organization feels this is appropriate because habitat alterations are often irreversible. If you build a dock, or you build a breakwater, or you de-

stroy a coral reef or something like that, it is going to be very difficult if not impossible to reverse that alteration.

And so, we think it is appropriate to be cautious. In my view, what the councils did by identifying broader areas initially was that they were being precautionary. How do you decide which of all the spawning habitat you can sacrifice? I would attest that you cannot make that decision right now, so the appropriate move is to be precautionary; identify a larger area and then narrow it over time, as the data becomes available. That is what the NMFS guidelines allow for.

Mr. GILCHREST. Dr. Gilford?

Mr. GILFORD. Well, there is no question we were encouraged to use a precautionary approach, and I don't have a problem with the precautionary approach within reason. I think that the thing that was a problem to us was we were virtually living—in submitting our material to the service for approval were virtually living in a situation where we will know it when we see it. No one had a feeling for really what was the appropriate, adequate, reasonable amount to do. And yes, people did go, and they were urged to interpret the data in a precautionary fashion.

So consequently, you had a lot of habitat labeled as essential fish habitat which, in fact, may not be essential fish habitat. Admittedly, we had a great deal of help in our council through the service and through the lab in New Jersey to identify essential fish habitat based upon data that was available to us. But when it comes right down to it, you may have a tremendous amount of data out there, of habitat out there labeled essential fish habitat which, in fact, may not be that, and at some point in time, that may come back to help you.

Mr. GILCHREST. I just have one more question, and then, I will yield to the gentleman from Guam.

I'll have some other questions after the gentleman from Guam is done, but Dr. Hogarth, do you see the nature of the disagreement about essential fish habitat, and do you feel that there needs to be more—do you feel that the language in the SFA is sufficient, or do you see the need for more specific guidance on this issue to the councils?

Dr. HOGARTH. I think we see a need for more specific advice to the councils, and we are in the process of doing that. This has been a very controversial issue, and right now, with the new Administration, we do not have all of the people in place, and I think until we get NOAA people in place, I am not sure you will see additional guidance. It is a controversial issue, and I think it needs to be aired. I think the agency has discussed it, and we know that further guidance needs to be done.

And I do think one thing: it was easy, when you said essential fish habitat, and it had no regulation attached with it. I think it was somewhat easier to designate expanded areas, so to speak. Now, we are initiating studies to look at the gear effects, for example, does a long line have effect on a various habitat? Does a trawler have effects?

And we are trying to now look at specific effects of gear on various types of habitat. Once some of that work is done, I think you will be able to refine some of your essential fish habitat issues. So

I think we are capable of doing it, and I think it is up to us to give further guidance to the councils and work with them.

Mr. GILCHREST. Thank you, Dr. Hogarth.

I yield now to Mr. Underwood.

Mr. UNDERWOOD. Thank you, Mr. Chairman.

I have a list of 15 questions, but I know it has been a long day, so I will just enter them for the record.

Mr. GILCHREST. All right; is that it?

Mr. UNDERWOOD. That is it.

Mr. GILCHREST. You are easier than I am.

I just have—well, I was going to sit back for a few minutes. Now, I wasn't able to ponder, Mr. Underwood.

[Laughter.]

Mr. UNDERWOOD. Well, let us ponder together.

Mr. GILCHREST. All right; we will ponder together.

Let's turn to marine protected areas, Dr. Houde. In a recent study that you were participating in with the National Research Council, the suggestion was made to protect 20 percent of the potential fishing areas; providing worthwhile reference point for future consideration and emphasizing the importance of greatly expanding the areas currently protected. Can you tell us how you arrived at protecting 20 percent as opposed to 30 or 15? Is that a specific scientific calculation?

Mr. HOUDE. You know, we discussed that 20 percent figure a lot. It is one that is seen in a lot of literature on marine protected areas as a number that has a bit of support in this scientific literature, perhaps more historically than at present. And for the record, our Committee did not recommend it. We talk about it in the text as being a number that is frequently mentioned, but we say that marine protected areas, that each area has to be considered on its own merits and needs and that some areas much smaller than 20 percent in some ecosystems would probably be effective; in some ecosystems, maybe more than 20 percent.

The history of it is that it comes from a conference that was held about 1990 by some fishery scientists. At that time, we thought that if you could protect 20 percent of the so-called virgin spawning stock biomass of a species that this would be protective of the future reproductive capacity of the stock, and the reasoning was that for those fish that don't move much as adults, that on average, by setting aside 20 percent of the area that the fish lived in that you would protect 20 percent of the spawning stock biomass.

That might be effective for some fish like coral reef fishes; those that are associated with hard bottom, but it might not be effective for others. Subsequently, we also know that the 20 percent protection figure for spawning stock biomass is not necessarily correct or right for many species. It could be more or less.

Mr. GILCHREST. Could you identify species that the 20 percent figure would be beneficial to, and then, identify those areas where the species that benefit from it—for instance, the areas that are their spawning areas that could be set aside? I guess can you identify where that 20 percent figure would apply in the coastal areas?

Mr. HOUDE. I don't know that I could personally, but I think there are people who for particular fishes—again, I will cite the example of Pacific rockfishes—who could do this. I think that the 20

percent figure for Pacific rockfishes, if you were using the spawning stock biomass criteria might not be high enough. For some of your relatively short-lived fishes, things like the croakers and spot and things that Dr. Hogarth mentioned, protecting 20 percent of the spawning stock biomass probably certainly would be sufficient.

For some crustacean fisheries like the shrimp that Mr. LeBlanc mentioned, protecting an even smaller part of the spawning stock biomass would be sufficient. So fish with short lives and high fecundities, you can conserve with relatively small areas to conserve spawning stock biomass. For those that are like cod and haddock that are in trouble, the 20 percent might in fact be low. We might want to think of 30 percent or 40 percent if you were going to just use a protected area to manage this stock.

But I don't think using protected areas alone is the way one would want to manage these stocks. You have to use all of the other tools that fishery scientists and managers have developed to control fishing effort and fishing mortality and to set the quotas and things that we normally do.

Mr. GILCHREST. Dr. Hogarth, how many marine protected areas are there now?

Dr. HOGARTH. Congressman, that is one of the things we are trying to look at overall, because, you know, the sanctuary program has sanctuaries in some refuges that the Department of Interior has. As far as marine protected areas (MPAs), as far as the council process and NMFS, we have about 37 or so that have been designated for various purposes across the country, and these are, like I said, maybe to protect spawning or—

Mr. GILCHREST. So each individual council establishes its own marine protected areas?

Dr. HOGARTH. Yes, sir. So far, we have used it for about 20 or 25 years. It has been a process that we have used as one of the tools, a very effective tool.

Mr. GILCHREST. Do they remain protected once designated, or does that designation change?

Dr. HOGARTH. Some of them have changed, and some of them are put in place for a specific time frame. They may not be all year or forever. They may be for a spawning season like the Gulf gag grouper was closed, the entire Gulf of Mexico was closed for 1 month to protect the spawnings of gag. We have time area closures. We have 228 acres in the Gulf that is set aside for the snapper grouper.

Mr. GILCHREST. 228 acres?

Dr. HOGARTH. Square miles; I am sorry, 228 square miles.

Mr. GILCHREST. I was going to say; that is not a real big—228 square acres.

Dr. HOGARTH. That was set aside with a sunset clause of, I think, 5 years to take a look at how effective it is. We are doing work on the effectiveness of marine protected areas. We have even used some areas that have been set aside for military purposes to look at what has happened there and compare that to other areas that you have activity. Marine protected areas are not new, and it is a very effective tool, and we feel like it is one we need to have in the fishery management area.

Mr. GILCHREST. Thank you.

Do you have a question, Robert?

I would like to ask a general question and get a relatively short answer from each witness if that is okay. The Magnuson Act deals with a myriad of things, and what I would like to do now is see if I can get some prioritization as to what, as you see it, some of the major problems are. And I guess we can start from Mr. LeBlanc and work our way from left to right: overfishing, overcapitalization, insufficient data, inappropriate management structures, ecosystem impacts of fishing. I will just read those one more time. Pick out two or three that you think are the major problems that need most attention: overfishing, overcapitalization, insufficient data, inappropriate management structures, ecosystem impacts of fishing. Which one of those areas would you like to see the Subcommittee spend more time on over the next five or 6 weeks?

Mr. LEBLANC. Thank you, Mr. Chairman. That is always a challenging question when the list has got legitimate issues across the board that I think ultimately need to be addressed. I think from the list you just presented, one of the most important things I think we need to address is overfishing and rebuilding programs and our concepts of what constitutes an overfished fishery and what constitutes a legitimate rebuilding program.

We are beginning to increase our understanding of the relationship between fisheries and ecosystems and environmental conditions, and in many cases, we are attempting to rebuild fisheries to levels that may not be achievable. There are rebuilding programs that have been implemented, for example, in the scup fishery in the Mid-Atlantic region. The rebuilding target is extremely high. There is 30-year relative abundancy data on scup, and over that 30-year average, the average relative abundance has been about three-quarters of a kilogram per tow on a relative abundance index, and the rebuilding program is 2.27 kilograms per tow. It is three times higher than the long-term average.

Mr. GILCHREST. Now, when you say long-term average, what is the—

Mr. LEBLANC. Thirty years. The data runs from 1969 to 1998, I believe. If you take the average relative abundance over that 30-year span for scup, it is about 0.78, and there are 3 years right after the passage of the Fishery Conservation and Management Act, the years 1977, 1978 and 1979, the average of those 3 years is 2.27, three times higher than the long-term average, and we selected that as the rebuilding goal. It is unlikely that we could achieve those levels of abundance even if we ceased all fishing for scup.

And so, we have to ask ourselves questions about what our rebuilding targets are; are they realistic, and are they based on good data and sound science, and even when they are, are we making the right decisions about those targets, and are we recognizing that as environmental conditions change, so does the possible and potential abundance of fisheries, and if our concepts of overfishing or rebuilding don't take that variability into account, we are going to impose rebuilding programs on fisheries that don't need them, and we will restrict unnecessarily fishing activities and won't end up getting the benefit of those restrictions.

Mr. GILCHREST. Thank you.

Dr. Gilford?

Mr. GILFORD. From my point of view, I have three major concerns. One is the insufficient data. Fisheries management is just so data-intensive, and we do not have good data. We have the best available but not what we need. We don't get the observer coverage we need. Secondly, the managing of recovering stocks is something that we need to improve. The problem is that as the stocks recover, according to the management plans, fishermen see more fish. When they see more fish, they can't understand why they can't catch them.

When we get these stocks recovered, there are going to be more fish out there. The fishermen can simply not take all of them to the point where they don't see them anymore, and we are right back where we started. So we are going to have to find a way to manage not only the fish but the fishermen when we are getting into the category of a stock approaching recovery.

Mr. GILCHREST. You say you not only have to manage the fish but the fishermen.

Mr. GILFORD. Certainly, yes, sir.

Mr. GILCHREST. How do you—that is an interesting statement.

Mr. GILFORD. Well, just simply—

Mr. GILCHREST. What can we do to help the councils manage the fishermen?

Mr. GILFORD. It is a matter of education from the standpoint of the councils, an expectation and realization of what is doable and what is not to have a sustainable fishery. When you simply cannot fish the fish down to where you don't see them anymore, you still have a sustainable fishery. And yet, when the stocks begin to recover, it is understandable that the people don't understand why they can't catch them because they can see them.

And when you reach that certain stage in a recovery curve that there are a lot of fish out there, the fishermen catch them; they have to put them back. They are discarded. Some live; most die, and they see that as a waste and rightfully so. We need to find some way to handle that particular problem.

And the last thing that I would say to you from the standpoint of a council member that is so frustrating is the system is so burdened down with paperwork, it is impossible to do anything in a hurry. It is just impossible for us to put through a management plan in any kind of reasonable period of time, given that you have got fish stocks out there that are growing a lot faster than we can move. So if there is anything you can do to reduce the paper load of work that has to be done in developing fisheries management plans and amending them, God bless you.

Mr. GILCHREST. Yes, sir; that is a worthy goal.

[Laughter.]

Mr. GILCHREST. We will take it up as one of our priorities.

Mr. GILFORD. I wish you would.

Mr. GILCHREST. Dr. Hogarth?

Dr. HOGARTH. It is a tough list. It is like the child at Christmas. It is hard to choose what you really want. I would say, though, insufficient data, and that, to me, covers a lot of territory. We need, in the National Marine Fisheries Service, to modernize the agency. When I talk about that, I am talking about stock assessments, re-

search vessels to collect the data and cooperative research with the fishing industry. That is a great program that Congress has funded the last couple of years. We need to expand that and to learn how to calibrate the fishery industry data with the kind of data we collect, and it is a great problem.

So I think the answer is insufficient data would be my number one. But I do think for the long term, we have got to match capacity for the sustainability of the fishery, and I think we are overcapitalized probably both in recreational and commercial. It is a tough issue and will be a tough issue to address, but I think until we address the capacity, we will continue to have the battles that we are facing, because it is very difficult to manage. And also, most plans have limited entry in them, but I think you have to, because as stocks improve, it is a tendency for more people to want to get in; more charter boats want to come in, or more commercial vessels want to come in, and we have to find a way to match the capacity of the two. I think if we could reach that point, we could stop a lot of the controversy that is going on.

Mr. GILCHREST. Thank you, Dr. Hogarth.

Mr. Crockett?

Mr. CROCKETT. Thank you, Mr. Chairman.

Probably I would pick two things as priorities for us: overfishing, I think we take a different viewpoint than Justin LeBlanc at NFI on this issue. The concerns that he is raising, I think, are relative to implementation of the act, not the act itself. Whether or not the targets are inappropriate, and I question if that is, in fact, true. But if they are, that is not a problem with the law. I think that is a problem with implementation.

We see, in the overfishing area, a problem with the NMFS regulations, their national standard guidelines allow for overfishing of a weak stock in a mixed-stock fishery. And by that, I mean if you have a fishery that has 10 or 15 stocks, one or two of those stocks could be in serious trouble. For example, in the grouper fisheries in the South Atlantic and the Gulf, there are four grouper species that are candidate species for listing under the Endangered Species Act.

They are sometimes caught in conjunction with these mixed-stock fisheries. That is allowed under the national standard guidelines. We don't think that is appropriate, those stocks are not going to be rebuilt unless you do something about that.

The other thing, and I will echo what several of the other witnesses have said on data: one of the solutions to the data problem is to implement observer programs for all fisheries. Contrary to what Mr. LeBlanc said, our proposal is not to have universal coverage on all fishing vessels. What we have said is enough observer coverage to provide statistically valid data. We would also recognize that it is not appropriate to have an observer on every vessel because of size and safety reasons, we would suggest that there be exemptions for that.

We think it is absolutely essential that you get observers out on the water, checking what is caught: bycatch, discards, all that sort of data. You are not going to get a handle on bycatch without that information.

Mr. GILCHREST. Thank you, Mr. Crockett.

Dr. Houde?

Mr. HOUDE. Yes; I think that many of the problems that we see today are a reflection of past history: insufficient science, ineffective management, ineffective management institutions that we have tried to, you know, reform and to improve on over the last few years. These have led to what I call the problems of too much effort, overcapacity, which has led to overfishing. And so, the major task that I see for management and the SFA in the future is to rebuild those stocks that are grossly overfished and that we have, you know, abused over the past 50 or 100 years. So that is the major problem.

The second one is the one that everybody has mentioned: the need to improve getting data and better data. The NAS report on fisheries data says that we need to develop a national fisheries information system, and this would, I think, be a big step to improving that data compilation management problem that we now have. And I would say third, in the long term, we have got to begin to face the issues that are related to multispecies management, developing the models and modeling that are required to manage species in the way that—understanding the way that they interact in the ecosystem and moving toward this broader kind of management that is ecosystem sensitive, using the ecosystem approaches of the NMFS panel that the SFA of 1996 mandated has recommended.

Mr. GILCHREST. Dr. Houde, I know there is a principle in science known as the principle of uncertainty, that you take what you have with some tolerance, and you move forward with it. With multispecies management, with an ecosystem approach, do we have sufficient scientific understanding of the marine ecosystem in the ocean to begin implementing that concept as a part of our management? Is it down the road yet?

Mr. HOUDE. I think it is down the road before we are going to use this tool as a primary way to manage fish stocks. We are going to have single species management for a long time. On the other hand, it is very valuable to have multispecies and ecosystems models to run to ask the kinds of what-if questions: what if we fished this species more than that species? What is likely to happen? It is to provide the kind of understanding that we now don't have about how whole ecosystems and communities of fish stocks are likely to respond, not necessarily to use it. Sometimes, the results we get from these models are very non-intuitive.

Mr. GILCHREST. So there are multispecies management models now?

Dr. HOGARTH. Yes, there are.

Mr. GILCHREST. Are they—who are they used by? Does NMFS have them? Do any of the councils have them?

Dr. HOGARTH. Yes, NMFS has some, and the councils have access to them. There certainly are some available in other parts of the world for the North Sea, the Barents Sea. In Australia, there are some available. And a lot of these are used in a conceptual kind of way in which the models are run; the what-if questions are asked; and this information is a part of the decision making process that goes into single species management.

Mr. GILCHREST. That is interesting.

Mr. Underwood?

Mr. UNDERWOOD. Well, thank you again, Mr. Chairman. Just on the issue of data collection, which obviously undergirds much of our perspective on all of these issues, to what extent—I am interested in the response from the Fisheries Service and perhaps some of the council representatives: to what extent could we rely on academic sources, and to what extent should we rely only on in-house capacity to collect data?

Dr. HOGARTH. I think we use all sources. We presently do. We have tens of millions a year that goes out to academics to address issues. I think we have to use all sources: academic, the industry and us. I think it is a combination. I think you want to have the broad base, and you want to have the different types of views to come in.

By the way, we are doing one ecosystem plan, and it is in Hawaii, in the coral reefs, but it is a very difficult one, where we are trying to do a coral reef ecosystem plan, and the council has spent a lot of money in development. It is under review right now, but it is quite an undertaking.

Mr. UNDERWOOD. Dr. Gilford?

Mr. GILFORD. Yes, sir?

Mr. UNDERWOOD. Respond to the issue of data collection and the use of various sources.

Mr. GILFORD. Well, I think Dr. Hogarth essentially pinned it down. I think we do have to depend on all sources. There is some data that is available to us if it is collectible, if there is money available to collect it and put it in a usable form just simply from the fisheries-dependent source. There is information that we need to collect from observer trips, things of that type.

There is also some research that needs to be done that I think goes perhaps beyond what the service should be doing that should be more in the academic area or under the contract of some organizations that are specifically concerned with doing marine research. But I think we do have to use any source that is available to us. But hopefully, the service can be provided with sufficient resources to collect much of the very specific data that the councils need to do the management plans and the management measures, and I think that is what is important to us is we depend upon the service and, in our case, the Northeast Science Center, to provide us with the data and the stock assessment work that we need done, and that, I think, is quite essential to us.

Mr. UNDERWOOD. Thank you.

Would you like to respond to that, Mr. LeBlanc?

Mr. LEBLANC. Thank you, Congressman, if I could. I think the agency has improved its willingness to use outside data, and I want to compliment Dr. Hogarth for that. He has certainly been more open-minded to the provision of academically-generated and cooperative research generated data. That has not always been the case, and I think in particular on some of the East Coast fisheries, there was a lot of hesitancy historically by the agency to take information about the status of stocks generated by outside sources. I am thinking in particular of surf clam and ocean quahog and scallops on the East Coast where the agency had some hesitancy.

They are certainly moving forward with their willingness to accept academic information and information generated through co-

operative research, and I think it is imperative. I think we all agree that there are massive data insufficiencies and data gaps in our assessment of stocks, and the agency should be willing to take quality scientific data from anywhere it can get it, and again, I just want to say that I think they are moving forward and doing a better job of that, but that hasn't always been the case.

Mr. UNDERWOOD. Well, I would surmise that what we are looking for is quality scientific data, peer-reviewed scientific data as well.

Thank you.

Mr. GILCHREST. I just have one more question to Dr. Gilford if you don't mind, sir. What I would like to do is look at a list you have of management issues and administrative matters. Management issues: you make six recommendations for the councils. In the administrative matters, you make eight recommendations and suggestions. What I would like to do, if it is all right with you, is to send a copy of this to each of the witnesses and ask them to respond to it. That would give us a little—I guess we could stay here—we probably should have started the hearing around 8 this morning—

[Laughter.]

Mr. GILCHREST. —and gone to 8 tonight. So I hope you all feel that your time here has been valuable, because it has been valuable to us. We are at the beginning stages of understanding a pretty comprehensive issue. I was asked a week or so ago "do we want to completely reform the Magnuson-Stevens Act, or do we just want to tweak it?" Well, everything is on the table right now. We may end up tweaking it a little bit; we may end up with some major changes, depending on what other Members of the House want to do or what the Senate is going to do.

But we want to know all that there is to know about how it is working so that we do tweak it, and we will tweak it the right way, or if we do make major reforms, they will be positive reforms where we can develop a consensus. So if that is all right, Dr. Gilford, we will send it to the other witnesses.

Mr. GILFORD. The full written statement?

Mr. GILCHREST. No, we don't need to—just actually, you have six recommendations for management issues of the councils, starting with—and we didn't get to the MSY question that I wanted to hear a discussion with a number of you, but the hour is getting late. And dealing with locality pay—

Mr. GILFORD. The only reason I am raising the question, Congressman, is that it may be more helpful to the people to see the full written statement so they have some understanding of what is behind—

Mr. GILCHREST. All right.

Mr. GILFORD. —the specific summary statement.

Mr. GILCHREST. We will do that, then, the full written statement.

Mr. GILFORD. Certainly.

Mr. GILCHREST. But do any of the other witnesses want their full statements sent to any of the other witnesses?

[Laughter.]

Mr. GILCHREST. Dr. Hogarth, Dr. Gilford, Mr. LeBlanc, Mr. Crockett, Dr. Houde, we appreciate your time. Thank you very much.

There is just one other thing. In case you have a question for us, you know, because you may be back a couple more times, don't hesitate to ask us questions. The hearing is adjourned.

[Whereupon, at 4:56 p.m., the Subcommittee was adjourned.]

[Additional material submitted for the record follows:]

[Letter from Daniel T. Furlong, Executive Director, Mid-Atlantic Fishery Management Council, submitted for the record follows:]

MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

James H. Gilford, Ph.D.
Chairman

Robert J. "Dusty" Rhodes
Vice Chairman

ROOM 2115 FEDERAL BUILDING
300 South New Street
Dover, Delaware 19904-6790
302-674-2331
FAX 302-674-5399

Daniel T. Furlong
Executive Director

Christopher M. Moore, Ph.D.
Deputy Director

April 5, 2001

Mr. David Whaley
Subcommittee on Fisheries Conservation,
Wildlife and Oceans
Room H2-187 Ford House Office Building
Washington, DC 20515

Dear Mr. Whaley:

Enclosed is a facsimile document I received from Kitty Simonds (Executive Director, Western Pacific Fishery Management Council) on the day of the Subcommittee on Fisheries Conservation, Wildlife and Oceans' oversight hearing on the Sustainable Fisheries Act (SFA) and the reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act.

Prior to the hearing I had asked my fellow executive directors to review and comment on the written testimony that Dr. Gilford provided to the Subcommittee. Kitty was the lone respondent. I think it is appropriate to include her Council's two concerns as a supplement to yesterday's hearing record. Your positive consideration and inclusion of these items will be appreciated.

Sincerely,

Daniel T. Furlong
Executive Director

DTF/j
Enclosure

cc: J. Gilford
K. Simonds

WESTERN
PACIFIC
REGIONAL
FISHERY
MANAGEMENT
COUNCIL

MEMORANDUM **2 APRIL 2001**

TO: Daniel Furlong
James Gilford

FROM: Kitty M. Simonds

SUBJECT: Magnuson-Stevens Act Changes

Below are two sections of the M-S Act that our Council believes should be amended to continue sustainable fisheries.

First, the Council sees a need to clarify actions resulting from the Secretary's failure to comply with the National Environmental Policy Act (NEPA) in the management of a fishery under the M-S Act. A recent example is NOAA Fisheries non-compliance with NEPA that led to judicial closures of the Hawaii swordfish and tuna longline fisheries. The Council believes that the Secretary's non-compliance should result only in judicial guidance about NEPA compliance and not judicial management of, or injunction against, a fishery. We suggest a new subparagraph be added to Section 305 (see attached).

Second, fisheries are being closed or severely curtailed as a result of governmental decisions, administrative and judicial, claiming to protect the marine environment. The Western Pacific Council believes that Section 312 (a) of M-S Act should be amended to make disaster relief funds available to fisheries that are closed based on claims to protect the marine environment (see attached).

Thank you for including these two items in Mr. Gilford's testimony to the House Subcommittee on Fisheries Conservation, Wildlife and Ocean on Wednesday, April 4, 2001.

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Magnuson Stevens Act Amendments
April 2, 2001

1. **Section 305(f) ... Judicial Review**
Purpose: to clarify that the Secretary's failure to comply with the National Environmental Policy Act (NEPA) in the management of a fishery under the M-S Act should result only in judicial guidance about NEPA compliance rather than judicial management of, or injunction against, a fishery.

Amendment: We suggest the following subparagraph be added to Section 305. Paragraph (f) is amended by redesignating subparagraph (4) as subparagraph (5), and inserting after subparagraph (3) the following:

> (4) If the Secretary has failed to comply with the NEPA, section 4332 of title 42, United States Code, in the management of a fishery under this Act, the exclusive remedy shall be an injunction related to the substance of the environmental analysis or the process for developing such analysis."

2. **Section 312 (a) ... Fisheries Disaster Relief**
Purpose: to make available fishery disaster relief funds for fisheries being closed or severely curtailed as a result of governmental decisions, administrative and judicial, claiming to protect the marine environment.

Amendment: We suggest modifying Section 312 of the Act as follows (new language in bold):

(a)(1) At the discretion of the Secretary or at the request of the Governor of an affected State or a fishing community, the Secretary shall determine whether there is a commercial fishery failure due to a fishery resource disaster **or restrictions imposed to protect the marine environment** as a result of –

(A).....

[Response to questions submitted for the record by Dr. Hogarth follows:]

NMFS RESPONSES TO FOLLOW–UP QUESTIONS

APRIL 4, 2001 HEARING ON MAGNUSON–STEVENS ACT REAUTHORIZATION

A. Questions Concerning Magnuson Act Reauthorization

General Questions.

1. Many factors have been identified as potential problems in US fisheries: overfishing, overcapitalization, insufficient data, inappropriate management structures, ecosystem impacts of fishing. Which of these do you believe is the most pressing problem to be addressed?

Response: NOAA Fisheries is concerned about all of these issues, and, while it is not easy to prioritize them, I believe that insufficient data and overcapacity are the most pressing problems.

Reliable and up-to-date information from the biological and social sciences is critical to all of NOAA Fisheries' missions. Without adequate fisheries science data, we cannot carry out our most fundamental fisheries management tasks. Identifying essential fish habitat and preparing biological opinions under the Endangered Species Act are examples of other major actions that we increasingly carry out which require data from several physical sciences. We also need data from the social sciences to conduct mandatory regulatory assessments and conform with Magnuson–Stevens Act national standards and FMP requirements. NOAA Fisheries has spelled out in greater detail our needs with respect to data from the biological and social sciences in responses to other questions.

I also believe that excess harvesting capacity in our Federally managed fisheries is a fundamental problem that we need to address in order to deal effectively with other needs. With this issue in mind, we set up a task force a few years ago to develop technical definitions and measures of capacity and overcapacity in the fish harvesting sector, and recently completed a qualitative report on harvesting capacity in more than 70 fisheries. This report concludes that overcapacity almost certainly exists in more than half of them. In the last few years, we have taken several actions to better address this problem. As examples, we have

(1) continued to support limited access measures and now have them in practically all Federally managed fisheries;

(2) worked with Congress and industry groups to administer a number of vessel and permit buyouts in various fisheries;

(3) established a performance measure in our strategic plan that calls for a reduction of 20 percent in the number of overcapitalized fisheries by 2005; and

(4) signed on to a 1999 United Nations Food and Agriculture Organization international plan of action on the management of fishing capacity.

2. Can you give examples of previously overexploited Federally managed fisheries that have been successfully recovered over the past 10 years? What species would you expect to add to the success list in 5–10 years? Are there any commonalities that might enhance our chances of success with over exploited species? What have been the major barriers to success?

Response: A number of overfished species are on the road to recovery due to rebuilding efforts and favorable environmental conditions. In the case of New England six years ago, the news about groundfish stocks was grim. Spawning stocks of cod were at dangerously depressed levels and recruitment was at a record low for the third year. Yellowtail flounder populations on Georges Bank were reduced to historical lows. Gulf of Maine haddock was declared commercially extinct. Management measures to rebuild the stocks included year-round closures and drastic reductions in days-at-sea.

These management measures are starting to pay off, and we are beginning to see signs of a recovery. Recent stock assessments indicate there is some good news for many stocks—not necessarily that there are a lot more fish of harvestable size, but that the mortality caused by fishing is lower, or that the fish left in the water are getting larger. In a few cases, there actually has been recruitment success; for instance, there are large numbers of young fish coming into the haddock stock. The 1998 year class was the largest in the past 20 years.

The situation has also improved for Georges Bank cod, where the stock biomass has increased 43 percent above the record low 1995 levels. Yellowtail flounder is improving, with growing populations and decreased fishing mortality for stocks off Georges Bank, Southern New England and Cape Cod. In addition, witch flounder

is well on its way to recovery; we've seen good recruitment and a doubling of spawning stock biomass since 1995.

Sea scallops have grown in size and number in areas closed to fishing to protect groundfish spawning. Benefits to scallop stocks from closing portions of Georges Bank have been significant and, in fact, scallop rebuilding is ahead of the schedule anticipated when the rebuilding program was designed. Two summers ago, scallopers were able to return to a closed area off of Georges Bank, as an initial step in a rotation management strategy. This opening put as much as $40 million into Southeast New England fishing communities, benefits directly attributable to conservation from the closures. The New England Council is developing an amendment to the Scallop FMP that would establish a rotation management strategy for the longer term and Framework 14 was recently approved to open some previously closed areas.

In other regions, we believe that we are making progress in rebuilding overfished stocks. Examples are Gulf group King mackerel in the Southeast, and central Bering Sea Alaska pollock and Pacific ocean perch on the West Coast. We have also begun recently to deal more effectively with some of the highly migratory species in the Atlantic. In the last few years, for example, we have successfully negotiated international rebuilding plans for Atlantic bluefin tuna, Atlantic swordfish, and marlin species.

The above fisheries/stocks all exhibit varying signs of recovery, and we expect some reasonable share of them to be fully recovered in the next 5 to 10 years. More generally, the species we would expect to add to the success list in the next several years include those that are capable of rebuilding within a short time frame, generally short-lived species with good reproductive rates. Favorable environmental conditions as well as management measures in place that protect juveniles (e.g., HMS time-area closures and international cooperation to protect juvenile swordfish) and mature females (spiny dogfish fishery) are other factors that influence rebuilding time periods. Other species such as red snapper are slow-growing and have much longer life spans, and can be expected to rebuild slowly, even in the absence of fishing.

In our latest annual report to Congress, Status of Fisheries of the United States, we report that, in the most recent year alone, the number of stocks experiencing overfishing declined from 77 to 72. In addition, we now have 75 rebuilding plans, of which 44 were approved after passage of the SFA in 1996. Of these 44 approved rebuilding plans, 27 have been implemented as of January 2001. The following fishery stocks are currently managed under rebuilding plans with recovery projected in 10 years or fewer: Atlantic sea scallop; Gulf of Maine cod; Georges Bank haddock; Southern New England yellowtail flounder; Silver hake; red hake; Atlantic halibut; monkfish; Dogfish; Summer flounder; Black sea bass; Vermilion snapper; Yellowtail snapper; Red drum; lingcod; and Bering Sea King and Tanner crab.

3. What are the pros and cons of the "overfishing" and "essential fish habitat" sections of the Sustainable Fisheries Act of 1996? What are the administrative burdens and benefits to Council staff? Can the Councils meet the objectives they are charged with under these sections? Would it be useful to clarify the concept of essential fish habitat, and to provide a clearer mechanism for evaluating the costs and benefits?

Response:

(A) Overfishing

The Sustainable Fisheries Act (SFA) set a new standard for overfishing by establishing the maximum sustainable yield (MSY) as an upper limit on optimum yield, and mandated rebuilding programs for overfished stocks to a level that is consistent with producing the MSY. This new standard sets the foundation for achieving sustainable fishery resources and realizing the many benefits from those resources for the good of the fishing industry dependent communities, and the general public.

Achieving sustainable fisheries, however, will have impacts, particularly in the short run. For many overfished stocks, landings and effort levels have to be reduced to allow the stocks to rebuild. These adjustments will have obvious effects on participants in the fisheries and on dependent communities. Regulations can be designed to minimize those effects as much as possible, but significant impacts will still be imposed on the industry. In the long-term, the benefits of identifying and rebuilding overfished stocks are expected to far outweigh the short- term costs.

The provisions of the SFA impose a greater requirement on the Councils and NMFS to develop more information on the status of stocks (stock assessments), the underlying causes of overfishing, the establishment of criteria or thresholds for determining when the stock size is too low or the fishing rate is too high, and for rebuilding programs. Obviously, this has greatly increased the workload for all parties in the system, and has placed a greater urgency that all information is available

to decision-makers. Staff and other resources needed to develop management programs have become overburdened. We have worked with Congress to supplement our existing resources, and have developed plans and taken actions to meet these needs for better science and analyses that support management. While this strained the Councils and NMFS, significant benefits from the SFA are being realized as stocks rebuild, and jobs and revenues increase. With the help of Congress, we expect further successes and benefits in the future.

(B) Essential Fish Habitat

The essential fish habitat (EFH) provisions of the Sustainable Fisheries Act clarify the importance of habitat conservation for the successful management of sustainable fisheries. The EFH provisions clearly recognize that habitat must be protected throughout the life cycle of managed species, and that EFH may be affected adversely by both fishing and non-fishing activities. The EFH language strikes a workable balance, creating a process to provide important information to enhance decision making by fishery managers and other agencies, yet not imposing prescriptive measures that could be too restrictive.

The principal challenge associated with EFH stems from limited scientific information regarding the habitat requirements of managed species, and the effects of various human activities on those habitats. The Sustainable Fisheries Act required NMFS and Council staff to compile existing habitat information in a very short time frame, and we amended all 40 existing fishery management plans to include EFH provisions. While EFH does impose additional administrative requirements on the Councils, all of the Councils are now considering EFH information in their management decisions, which allows them to make more informed decisions and address potential adverse effects to EFH.

The EFH regulations provide guidance and flexibility for Councils to designate EFH based on existing information, to identify especially valuable or vulnerable portions of EFH as Habitat Areas of Particular Concern, and to comply with the requirement to minimize the effects of fishing on EFH to the extent practicable. If the Councils need further clarification to apply the EFH provisions of the Magnuson–Stevens Act, NMFS is, of course, willing to work with the Councils to develop appropriate guidance.

Finally, I want to emphasize where we go from here. Based on the good direction from the National Research Council's and NOAA Fisheries' reports on the merits of an ecosystem approach to fisheries management, plus lessons learned from the Chesapeake Bay, Bering Sea and the Northeast, I have asked my staff to host a national workshop this fall to begin to develop technical guidelines for implementing ecosystem based fisheries management. Making this an open workshop, which allows the views of all of our constituents, will lead to a better product.

4. Does the time required to promulgate Federal fishery regulations hinder effective management?

Response: Yes, in many cases. The process can take a few years from the time a Council identifies a problem to publication of final implementing regulations. Collecting and analyzing biological, social and economic data, conducting public involvement, developing management alternatives, and reviewing documents for legal compliance are steps that cannot be eliminated. With the myriad of laws that we operate under, and the necessity for balancing regional needs with national priorities and policies, it is simply not possible to significantly shorten the process. However, we are looking at every possible way to streamline the process, including the greater use of programmatic environmental impact statements that annual measures can be tiered to, and the use of multi-year total allowable catch (TAC) setting.

Management Options:

1. In your opinion, what is the primary benefit and the primary drawback of the existing system of Regional Fishery Management councils? What changes might lead to more successful management?

Response: The Councils perform a very important role in preparing fishery management plans and plan amendments for fisheries and fisheries resources in Federal waters; making necessary in- season adjustments; holding public hearings and meetings and considering public input in taking final actions; and submitting recommendations to NOAA Fisheries for review, approval, and implementation. By convening local and regional stakeholders, the Councils bring necessary perspectives to Federal decision making. However, Council members, nominated by state governors and appointed by the Secretary, cannot always represent the views of all of the participants in the fishery. Some have advocated a more balanced representation on the Councils of non-users, such as environmental groups, and users of the fishery resources, including harvesters/processors, recreational, non-consumptive operators and various gear types representatives.

2. How might the Magnuson–Stevens Act be amended to address the problem of frequent industry opposition to strong conservation and management measures? Should fishermen be given more or less influence over the management measures adopted?

Response: The Administration is currently developing a proposal to amend the Magnuson- Stevens Act and therefore does not have a current position on this or other questions related to amending the Act.

3. Should the blanket moratorium on individual fishing quota programs (IFQs or ITQs) be lifted? If no, what is your main reason for opposing these programs under all circumstances? If yes, should there be nationwide standards for quota programs?

Response: The Administration is currently examining the issue of IFQs and does not currently have a position on extending the moratorium in Section 303(d). That said, NMFS does not oppose IFQ programs under all circumstances. As the Congressionally mandated study of IFQs, Sharing the Fish, showed, NMFS believes that IFQs have been effective management tools, provided that certain safeguards or conditions are applied to their administration. Naturally, we are prepared to exchange views with Congress on the need for national standards for IFQ programs.

4. Current management practices address species independently, attempting to achieve a maximum sustainable yield for each species. Is this realistic? Can all species be exploited at MSY levels simultaneously?

Response: Our goal as set out in the Magnuson–Stevens Act is to manage at the MSY level whether the fishery management plan is single- or multispecies-focused or takes an ecosystem-based approach. While the goal is attainable for many species, we recognize the inherent difficulty in achieving this goal for all species simultaneously. The Act provides ample flexibility in meeting this goal.

5. Moves toward more decentralized fisheries management in the Maine lobster fishery, and in other fisheries here and abroad, have shown some successes in terms of conservation and social and economic outcomes. Is more decentralization of management desirable in some of our fisheries? If so, should the Magnuson–Stevens Act be amended to encourage experiments with decentralized approaches to fisheries management?

Response: The Administration is currently developing a proposal to amend the Magnuson- Stevens Act and therefore does not have a current position on this or other questions related to amending the Act.

6. Are there changes needed to influence how Councils meet NEPA requirements in developing and amending fishery management plans?

Response: The Administration is currently developing a proposal to amend the Magnuson- Stevens Act and therefore does not have a current position on this or other questions related to amending the Act. At the same time, it should be noted that the agency has initiated a project, with an initial grant from the NOAA Administrator's Fund, to review and improve the way NMFS and the Councils work together to comply with all applicable laws, including NEPA.

7. Would it be better to assign a single council staff person to be responsible for the entire process of data collection, scientific assessment, and provision of management advice for each fishery?

Response: It would not be possible to have a single council staff person to be responsible for the entire management process. For the most part, data collection and scientific assessment of the resources are conducted by the National Marine Fisheries Service (NMFS), and it would be inappropriate for council staff to direct NMFS programs. However, NMFS and Council staff work very closely on the specific needs for data and stock assessments, and activities, priorities, and timing of the work in this area are based on those joint discussions. In terms of the development of management plans or amendments, often a single council staff is assigned to coordinate all the necessary activities involved with developing management alternatives, analytical documents and descriptions of the stocks or fishery. In some cases, multi-discipline plan development teams coordinate and prepare the necessary documentation, but these groups are often headed by council staff.

Enforcement and Compliance:

1. The vast area of our EEZ, the hundreds of fishing ports and tens of thousands of fishing craft make monitoring, control, and surveillance extremely difficult. How might the Magnuson–Stevens Act be amended to encourage the use of alternative methods for strengthening compliance with regulations? Should non-governmental bodies be allowed to supplement existing enforcement resources?

Response: The Administration is currently developing a proposal to amend the Magnuson- Stevens Act and therefore does not have a current position on this or other questions related to amending the Act.

2. The US spends $600 million annually on fisheries management, mostly for enforcement of the Magnuson–Stevens Act. Other fishing nations, for example, Australia, Canada, and New Zealand, have implemented user charges to recover the costs of fishery management services. Should the Magnuson–Stevens Act be amended to require that some of the costs of management be recovered from users of our marine fisheries resources? If so, what principles should govern a cost-recovery program for US fisheries?

Response: The Administration is currently developing a proposal to amend the Magnuson- Stevens Act and therefore does not have a current position on this or other questions related to amending the Act.

Social Science and Fishing Community Concerns:

1. How could we improve opportunities for collaboration in research and management between fishermen and regulators?

Response: NOAA Fisheries is working to expand the opportunities in cooperative and collaborative research by sharing the successes reached in areas such as the Northeast and will continue its efforts to build upon these efforts in the future. There is a strong history of collaboration in several regions of the country, particularly in the Northeast where scientists and managers have been working for years to develop the mechanisms required and the close collaborative relationship with industry and other constituents to identify and fund cooperative research. On the West Coast, long standing efforts will continue to support commercial vessels for data collection and a new thrust is focused on developing a coast-wide grants program that will be available for constituent identified research, information sharing and gear improvement. Planning efforts are underway on both Coasts to develop game plans for the involvement of constituents in the design and implementation of research surveys.We are also working to improve the coordination of regional cooperative research programs. The communication of lessons learned, and the development of scientifically valid protocols are areas that we will be working to enhance. In addition, support is required across the country for the participation of NMFS scientists in the development of surveys for data collection on important species, as well as in the expansion, review, and refinement of programs in collaboration with stakeholders. We are working to secure the necessary resources to support these efforts.

2. What is the significance of National Standard 8 on fishing communities? What, if anything, could be changed in the Magnuson–Stevens Act or its implementation to better protect coastal fishing communities?

Response: By creating a national standard which requires consideration of the impacts of proposed management measures on fishing communities, Congress has empowered Councils and NMFS to fully incorporate social and economic factors in fishery management decisions. Not all communities involved in marine fisheries qualify as fishing communities, but in identifying those that do, the fishery impact statement required by the Magnuson–Stevens Act is strengthened. For the communities that do qualify as fishing communities under the Act, consideration of community sustainability and any necessary economic mitigation measures serves to further improve the analyses and decision criteria for the Councils and NMFS. Therefore, we believe that the current provisions in the Magnuson–Stevens Act are sufficient for the consideration of, and mitigation of impacts, on dependent fishing communities.

3. Some observers have noted that fishermen frequently oppose conservation and management measures because they have little assurance that current sacrifices will be rewarded in the future. How can the Magnuson–Stevens Act be amended to improve the prospects that fishermen's sacrifices will be perceived as worthwhile, and thus improve compliance with regulations?

Response: The Administration is currently developing a proposal to amend the Magnuson- Stevens Act and therefore does not have a current position on this or other questions related to amending the Act.

Science and Data Needs:

1. The current process for determining data collection and research priorities is driven primarily by line items in the budget and other centralized political decisions. Would this process and management outcomes, be im-

proved if managers within each fishery were given greater authority and leeway to determine appropriate data collection and research programs?

Response: Yes, the process and management outcomes could be improved if NMFS scientists and managers determined the data collection and research programs needed to manage the fisheries. The partnership between NOAA Fisheries managers and scientists is one of the strengths of the agency. Fishery managers and scientists work together to identify the key management issues for each fishery, but the science is carried out independently by the scientists. This process results in science that is focused on the management needs, yet carried out by scientists who are removed from the management decisions. NOAA Fisheries also works with constituents to include their input on management and information needs and collaborative research. Greater reliance on this planning process and determination of data and research needs would provide better information for conservation and use of our fishery resources.

2. Are the data currently available for estimating fish stocks adequate to support the decisions that Federal fishery managers must take?

Response: Although NMFS suffers from a shortage of staff to conduct assessments and related activities, the most important hurdle we face is an overall paucity of adequate data on which to base stock assessments. Neither NMFS alone, nor the agency in combination with other relevant Federal agencies, state agencies, universities and private foundations, has accomplished the basic objective of "adequate baseline monitoring of all managed species." The foremost need, as emphasized in the National Research Council's report on "Improving Fish Stock Assessments," is to obtain fishery-independent estimates of stock abundance using reliable research vessels as platforms. Other important data deficiencies include observer coverage in fisheries not subject to Marine Mammal Protection Act observer requirements to monitor bycatch and discards, and the quality and completeness of commercial and recreational catch and effort statistics. A secondary, but increasingly serious, hurdle is the demand being placed on NMFS scientists to produce more and better assessments on more species, at greater frequency, with fewer resources and, in many cases, eroding databases.

B. Questions for Dr. William Hogarth, Subcommittee on Fisheries Conservation, Wildlife and Oceans, Magnuson Reauthorization Hearing

1. Dr. Hogarth, in your testimony you mention that all 40 existing fishery management plans have been amended to identify and describe essential fish habitat. Is it true that some of the Councils did this amending as an omnibus amendment to all of the plans under their jurisdiction? Why was it done in this manner? Was it a lack of information or were the statutory timetables too tight?

Response: Each Council chose what it believed was the most efficient means of addressing the Sustainable Fisheries Act requirements. Most Councils completed single omnibus EFH amendments for all of their FMPs, while some Councils chose to do separate amendments for each FMP. Regardless of which approach was used, the net effect is that each FMP was amended to include EFH information that is specific to that FMP. In other words, handling EFH through an omnibus FMP amendment did not result in generic EFH designations for the species managed under those FMPs. The statutory deadline limited the Councils' ability to conduct extensive analyses of available data before identifying EFH, but omnibus FMP amendments were used for administrative efficiency, not as a surrogate for FMP-specific EFH designations.

2. Dr. Hogarth, your statement says "the future health of the nation's fisheries is anything but bleak...". Some of the statements and press releases from interest groups have sounded much less optimistic. Can you expand on why the agency feels optimistic about the status of our fishery resources?

Response: As I noted in my testimony, we have made substantial progress in establishing the foundation for improvements in our fisheries. We have 75 rebuilding plans in place and more will come on line this year. We have seen significant increases in many of our stocks. For example, the stock size for Northeast scallops and haddock have increased, and king mackerel in the Southeast has fully recovered. In the past year, 9 stocks were declared to be no longer overfished. In my testimony, I also noted that we have more work to do, particularly since 92 stocks remain overfished. Nevertheless, through a continuing partnership with the Councils and the industry, we expect our recent success to continue and expand as rebuilding programs achieve their goals. I would point out that even though rebuilding programs are in place it may take many years before an overfished stock can be rebuilt, particularly for the slow growing, late to mature species.

3. In its April 2000 report to Congress, the General Accounting Office noted that although NMFS reported that it did not know the status of 75 percent of the species (and 30 percent of the stocks) that they manage, the 25 percent that it did know the status of represented about 90 percent of the total weight or volume of all species in U.S. waters. Is this an accurate statement? If this is true, then NMFS knows the status of 90 percent of the fisheries resources in the U.S. Why isn't this made clear in the annual Status of Fisheries Report?

Response: It is true that we do know status of the majority of the most economically important stocks (defined as any stock with more than 200,000 pounds landed). In fact, NMFS know the status of nearly two thirds of those stocks. Virtually all of the these major stocks are currently managed under an Federal fisheries management plan or under a management plan prepared by the fishery management commissions. The statement that we do not know the status of 75 percent of the stocks that we manage is incorrect because we do not actively manage most of those species whose status is unknown. Furthermore, it is not true that we know the status of 90 percent of the fisheries resources in the U.S. as indicated in the question. There are some 660 stocks whose status is either unknown or undefined. Most of these stocks are not managed, but they occur in the geographical jurisdiction of the Councils and must be included in the annual report to Congress. In addition, most of the unknown stocks have an exceedingly small biomass, and have little economic value at this time. Of course, all of these small stocks are part of the ecosystem and are important in that sense. However, they are often so dispersed or infrequently found that they do not justify the expenditure of finite monetary or personnel resources to assess their status at this time.

4. In the rebuilding of overfished stocks, some have argued that unreasonable rebuilding targets have been set by either the agency or the councils. How are these rebuilding targets established? If the complaint is correct that unreasonable targets are being set, is this a problem with the Act or with the implementing guidance from the agency?

Response: Rebuilding targets established in fishery management plans are reasonable and in line with the goals of the Magnuson–Stevens Act, particularly if we, as a Nation, continue to seek to rebuild stocks to relatively high level in order to realize the many benefits that the resources offer. Rebuilding targets are established in accordance with the national standards and other provisions of the Magnuson–Stevens Act, which allows adjustment in certain circumstances. Specific targets are developed for each species, based on each species biology and other such factors, including the need to minimize economic and social impacts on participants and dependent communities.

5. Some Members of Congress have argued that the identification of EFH by the Councils was far too broad and too sweeping in its implementation. The agency is now urging Councils to identify Habitat Areas of Particular Concern (HAPS) which are more discrete areas. Isn't this what Congress actually wanted NMFS to do in the first place? Do we need to create a new designation to accomplish what was originally intended?

Response: Over 700 species are managed under the Magnuson–Stevens Act, and the aggregate of the EFH designations for those species is indeed broad. In most cases the Councils identified EFH separately for several life stages of each species, since different species and life stages may have different ecological requirements. For individual species or life stages, EFH generally is a distinct subset (often 50 to 70%) of the total available habitat within the species' range, and only includes a portion of the water column (e.g., only bottom habitats or only surface waters). However, when individual EFH designations for all life stages of all managed species are overlaid, the designations encompass most of the coastal waters and exclusive economic zone. NMFS is continuing to work with the Councils to revise and refine EFH designations as additional information becomes available.

It is entirely appropriate to designate as EFH the areas that provide necessary environments for managed species to feed, reproduce, and seek shelter from predators. These areas constitute a sizeable portion of the managed species' geographic range. HAPS, on the other hand, are localized areas of extreme vulnerability or ecological importance. For instance, HAPC designation may be warranted for areas that play a vital role in the reproductive cycle of a managed species, or areas that contain a rare habitat type that may be sensitive to disturbance from fishing or other human activities. The designation of HAPS is a valuable way to acknowledge areas where we have especially detailed information on ecological function and habitat vulnerability that allows us to highlight priority areas for conservation and management. Healthy populations of fish require not only these relatively small habitats, but also other suitable areas that serve the necessary habitat functions to sup-

port larger numbers of fish. HAPS can highlight valuable and/or vulnerable habitats, but alone they do not comprise the areas necessary to support healthy stocks of fish.

Given the definition of EFH in the Sustainable Fisheries Act, NMFS interpreted Congress' intent to encompass the habitats that are necessary for managed species throughout their full life cycle. However, NMFS recognized that focusing on smaller areas may be useful for management purposes, so our regulations encourage Councils to identify HAPS within EFH.

6. Last Congress, this Subcommittee held a hearing on essential fish habitat issues. At that time, one of the concerns raised by the agency was that there was not adequate funding available to fund research into habitat issues. If funding is scarce, does it make sense to look first at the habitat needs of those commercially important species?

Response: Limitations on available funding definitely constrain our ability to identify EFH more precisely and document the effects of various human activities on EFH. The Magnuson–Stevens Act addresses species that are valued by commercial and recreational fisheries, both of which are important to the economy and to fishing communities. In general, NMFS prioritizes its habitat research around pressing management needs, so our work studying habitat requirements of a species or understanding the effects of habitat disturbance often responds to the need to make more informed decisions on a particular issue to manage the fisheries effectively. Those management priorities often reflect socioeconomic concerns associated with the commercial or recreational sectors of the industry, but biological considerations (such as understanding habitat usage patterns to help minimize bycatch) also have a major influence on our research priorities.

7. One area of concern that has been identified by a number of reviewers of Federal fisheries management is that the adequacy of scientific data on which management decisions are made. A second concern is that the regulated community does not have confidence in the scientific information generated by the agency. How can we get better data and get better buy-in by the regulated communities?

Response: NMFS is taking a number of actions to improve the quality and quantity of fisheries science. Five essential elements to using the best available science for conservation and management measures are: (1) obtaining adequate quantities of data; (2) obtaining data of adequate quality; (3) proper interpretation of these data; (4) peer review of this process; and (5) placing greater emphasis on cooperative research.

NOAA Fisheries is actively engaged in improving the science upon which the resource management decisions are based through the implementation of the Stock Assessment Improvement Plan (SAIP). The SAIP seeks to improve the comprehensiveness, timeliness, quality, and communication of NMFS stock assessments; mine existing databases to evaluate status determination criteria for species of "unknown" status; conduct adequate baseline monitoring for all Federally managed species; upgrade assessments for FMP core species; and develop next-generation assessment models that explicitly incorporate ecosystem considerations.

Specific activities include:

- Develop new stock assessment methods - Expand the pool of senior level scientists doing cutting-edge methods development. Point of contacts in each Center will coordinate methods research, with a concurrent emphasis on augmenting university partnerships to develop future assessment scientists.
- National Stock Assessment Toolbox - When completed, this standardized package of tested, peer-reviewed, and approved analytical tools and assessment models will allow better, more reliable and repeatable assessments to be made.
- NMFS-university partnerships and graduate stock assessment fellowships - Science Centers will collaborate with Sea Grant Universities to enhance stock assessment and population dynamics study programs and research capabilities. NMFS/OAR stock assessment fellowships will increase in number and in scope, and focus on new projects that address the agency's highest priorities. Another important element is modernization of NOAA's fleet of fisheries research vessels (FRVs).
- A contract has just been signed for the construction of the first of a series of state-of-the-art, acoustically quiet FRVs to conduct fisheries monitoring and research surveys.
- The FRVs are an essential part of NOAA's plan to meet the rapidly growing demand for high quality at-sea data, and to maintain the integrity of existing data series.
- Meeting those demands also depends on significant growth in the number of days-at-sea aboard chartered academic and industry vessels.

NMFS is also striving to apply more advanced technology in research surveys.

- NOAA Fisheries is exploring fisheries applications for advanced technologies that would improve the efficiency of and effectiveness of stock assessment surveys.
- Advances in airborne and satellite remote sensing, hydro-acoustic survey, and signal processing technologies hold great promise for fisheries applications by adding information not presently available and providing alternative sources of survey information for some species and their habitats.

Regarding buy-in, a major priority of NMFS is to continue to improve the effectiveness of external partnerships with fishers, managers, scientists, conservationists, and other interested groups. These partnerships will increase the credibility of NMFS scientific efforts and build a balanced approach to gathering and analyzing data. As addressed in the NMFS Strategic Plan for Fisheries Research 1998, NMFS will continue to:

- Promote a cooperative network of partners in the coordination of fisheries research;
- Develop the infrastructure for long-term, continuous working relationships with partners to address fishery research issues;
- Sponsor symposia and conferences for partners to exchange information and identify major fisheries research initiatives.
- Solicit partners' views on fisheries research needs.

8. We have seen a number of cooperative research survey initiatives that were cosponsored by industry in the last few years. How does the agency use the information from these cooperative surveys, in addition to their own survey information, to determine stock size and total allowable catch levels?

Response: Last year, the Southeast Fisheries Science center received a grant from the National Fish and Wildlife Foundation (Shell Funds) for $100K to do research on Nassau Grouper. The SEFSC also works with State agencies, i.e., Florida Department of Environmental Protection for joint south Florida restoration projects. We accept the funds through reimbursable agreements.

For the Alaska Fisheries Science Center, funding from environmental groups tends to be limited, but some work has been done through contributions by groups such as the "Suzuki Foundation". An example is the salmon stock assessment project for southeast Alaska conducted jointly by ADF&G, NMFS, and sponsored by the American Fisheries Society. The Alaska Fisheries Science Center has established MOUs with fishing industry associations to conduct cooperative research. The associations contracted for fishing vessels to serve as research vessels for our use in conducting resource surveys.

9. Dr. Hogarth, since fisheries stock survey information is critical to better fisheries management, why has the Administration not included funding for new fishery research vessels in its budget?

Response: The Administration has decided to defer funding for the second research vessel to fiscal year 2003. However, this program remains a high priority for NOAA and NMFS. The Fisheries Research Vessel 40 construction contract includes options for three additional vessels. A commitment at this time of next year's Fisheries Research Vessel budget is not possible. This coming summer and fall, NMFS will be working with the Office of Management and Budget, and the White House on Fisheries Research Vessels along with other out-year budgets as part of the Administration's growth scenario and mission requirements.

10. The Act currently has been interpreted to prohibit the gathering of economic data from processors. Why was this restriction put in place and should this issue be re- examined? Are there ways of gathering this proprietary data and ensuring its confidentiality?

Response: This restriction was put into place to address data confidentiality concerns by owners of fish operations and fish processing operations in 1990. Given the level of economic data on business practices, profits, and losses that was proposed to be collected, business owners became concerned that proprietary financial information would be made available to their competitors, some of whom were fishery management council members. As a result, the collection of economic data from processors and fish operations was precluded in sections 301, 303, 401, and 402.

However, a re-examination of this issue is necessary for a number of reasons. First, the Executive branch of the government has issued an executive order that requires the determination of costs and benefits of proposed management regulations as well as the estimation of the impact of regulations on the national economy. The Congress has passed a number of laws that require regulatory agencies to take into account the costs and benefits or impacts of proposed regulations on the econ-

omy and specifically on small entities. Executive Order 12866 requires that in "Deciding whether and how to regulate, agencies should assess all costs and benefits of available regulatory alternatives" to determine if the rule is a significant regulatory action. The Regulatory Flexibility Act requires agencies to estimate the impacts of proposed regulations to determine if small entities are disproportionately affected. The National Environmental Policy Act requires a report on any Federal action significantly affecting the quality of the human environment. The Unfunded Mandates Reform Act of 1995, Congressional Review of Agency Rulemaking, and the Endangered Species Act require economic analysis to determine the economic impacts of regulations, compliance with E.O. 12866, and economic analysis of critical habitat designation, respectively. Most importantly for fisheries management, the Magnuson–Stevens Fishery Conservation and Management Act (MSFCMA) requires NMFS to increase benefits to the nation from fishing, to provide assessments and descriptions of the economic and social impacts of proposed action on participants in the fishery, and many of the national standards require or imply the need for economic analysis; e.g., cannot discriminate in allocating fishery resources between members of different states, determination of optimum yield, consider efficiency, minimize costs, and minimize adverse economic impacts on fishing communities. The prohibition on collecting economic data in Sections 301, 303, 401, and 402 makes compliance with the MSFCMA and other laws and executive orders difficult.

Second, regulations promulgated for fisheries managed as common property, open access, or regulated open access resources can and often do have significant impacts on fish processors and dealers; many of whom are often fishers themselves. This is especially true for fisheries in transition from common property to rights based fisheries such as wreck fish, halibut/sable fish, surf clam, tuna, and pollock managed under the American Fisheries Act. The transition of the halibut fishery from a derby fishery as a regulated open access fishery to a A "year round" fishery under IFQs providing products to the fresh fish market resulted in significant economic and financial impacts to fish processors that could not be quantified because of the prohibitions in the MSFCMA.

Third, specialized surveys traditionally used by NMFS to collect economic data are expensive, usually have low response rates resulting in sampling biases, are conducted after regulations have been proposed to solve a problem in a fishery, are not comprehensive in covering all fishing activity of a fishing firm or fleet of fishing vessels and boats, and do not include the processing sector of a fishery. Continuous and in some cases mandatory data collection for fisheries would provide the necessary economic data needed to address the requirements of the national standards in the MSFCMA, the Regulatory Flexibility Act, Executive Order 12866, etc. with information collected over time before and after a regulation is imposed on a group of fishers and their associated processors. Combining this economic data collection program with the existing biological data collection infrastructure would result in a significant improvement in the quality of the data being collected at a fraction of the cost of collecting it as a randomly sampled, voluntary program for all Federally managed fisheries.

Fourth, the economic information needed to comply with Congressional mandates and executive orders to determine costs and benefits and economic impacts of proposed or adopted fishery management regulations does not require detailed proprietary financial information from processors, dealers, or fishing operations. The limited, proprietary, financial information that is needed can be protected as confidential data by the strict practices and protocols presently used by NMFS. Precluding the disclosure of this information about individual fishing operation or fish processing operations to the general public can prevent competitors from accessing each others information.

To re-examine this issue, the MSFCMA can be amended to require the collection and use of economic and socio-cultural data to monitor the economic status of the fisheries, to eliminate any existing MSFCMA restrictions on the collection of such data, and to eliminate or reduce the OMB obstacles to collecting such data that is necessary to meeting the Congressional mandates and Executive requirements provided that it is not disclosed to the public. The explicit inclusion of economic and socio-cultural data in the definition of "best scientific information" in National Standard 2 will improve the information available to fishery managers upon which they can base their decisions and set policies concerning the nations living marine resources. Removing language such as "(other than economic information)" in the MSFCMA will also strengthen the ability of the NMFS to collect data from processors and harvesters of fishery resources. The ability of NMFS to accurately predict the impact of proposed fishery management regulations would be improved while continuing to protect confidential data under existing provisions of the law. In addi-

tion, it would eliminate the appearance of a contradiction in the law requiring economic analysis without allowing the collection of the necessary data.

11. The Magnuson Act requires Fishery Management Plans "to minimize to the extent practicable adverse effects on such habitat cause by fishing...". Since the Councils have identified almost the entire EEZ as EFH, this will mean that the agency must collect data on gear impacts for the entire EEZ. Should the Act be amended to apply the minimization requirement only to the HAPC areas?

Response: The Administration is currently developing a proposal to amend the Magnuson- Stevens Act and therefore does not have a current position on this or other questions related to amending the Act.

12. NMFS is currently facing 102 lawsuits and this number seems to have grown substantially since the passage of the 1996 amendments. Are there certain provisions within the 1996 amendments that are causing this increase in lawsuits and if so, what actions should Congress take to lessen this increase in lawsuits?

Response: There is no particular provision in the 1996 amendments that is causing these lawsuits. Rather, the Sustainable Fisheries Act established new conservation standards for fisheries management, and imposed new requirements on the Councils and NMFS to meet those standards. In particular, Congress amended the Act to greatly strengthened the conservation standards by requiring that any overfished fishery must be rebuilt to levels consistent with producing the maximum sustainable yield in that fishery. Congress also added new national standards regarding bycatch, dependent communities, essential fish habitat, and safety at sea. The new provisions required adjustments in all fishery management plans, which necessitated the imposition of impacts on the industry to meet the new requirements. Although the Councils and NMFS make every effort to mitigate impacts, the industry sometimes reacts by bringing lawsuits to have the management programs, and their associated impacts, reduced by the courts. On the other hand, some lawsuits are brought by environmental interests who believe that our management programs are not sufficient to meet the conservation requirements of the Act. To a certain extent, these lawsuits are inevitable because fisheries management has become very controversial, and it is very difficult to please all interests in the development of a management program. The Councils and NMFS attempt to involve all interests, including the public, in the FMP development process in an effort to incorporate all views and avoid misunderstanding that can lead to lawsuits. In some instances, this is not sufficient to avoid a lawsuit.

The Administration is currently developing a proposal to amend the Magnuson–Stevens Act, and therefore, does not have a current position on actions necessary to amend the Act.

13. The Act currently has been interpreted to prohibit the gathering of economic data from processors. Why was this restriction put in place and should this issue be re- examined? Are there ways of gathering this proprietary data and ensuring its confidentiality?

Response: The Administration is currently developing a proposal to amend the Magnuson- Stevens Act and therefore does not have a current position on this or other questions related to amending the Act.

14. Several of the witnesses have noted that the use of MSY is problematic. Should Congress look at this term and, if so, what target should be used in terms of rebuilding plans?

Response: The Administration is currently developing a proposal to amend the Magnuson- Stevens Act and therefore does not have a current position on this or other questions related to amending the Act. Having said that, NMFS is continuing to work with the concept of MSY, including the use of proxies in data-poor situations.

Magnuson–Stevens Act Hearing #1, Questions for the Committee Record

1. We have been told by National Marine Fisheries service (NMFS) representatives in the past that striped bass is the single greatest fisheries management success story since passage of the Magnuson Act. If this is in fact the case, why does the entire Exclusive Economic Zone remain closed to fishing for this not-incredibly abundant species? Does science support the opening of this fishery? While Congress told NMFS in 1994 it would close the fishery if it were reopened, will NMFS revisit this issue?

Response: Approximately six years ago, when NMFS proposed repeal of the moratorium on fishing for striped bass in the EEZ following the Atlantic States Marine Fisheries Commission's (ASMFC) declaration that the stock had "fully recovered," there was, initially, nearly unanimous support from all member states of the

ASMFC. However, strong opposition to the proposal from the recreational fishing sector soon developed and NMFS subsequently lost the support of the states, the ASMFC, and the USFWS, and our "management partners" under the Interstate Fisheries Management Plan. The recreational sector's concerns/arguments were largely threefold:

1) The Atlantic Striped Bass Conservation Act (ASBCA) requires, among other things, that any regulations promulgated in the EEZ by the Secretary must "ensure the effectiveness of State regulations on fishing for Atlantic striped bass within the coastal waters of a coastal state" (Section 9 (a) (3)). The recreational fishing sector argued that NMFS's regulatory proposal for the EEZ did not meet this standard because it could not totally guarantee the prevention of striped bass harvested commercially in the EEZ from being landed in certain states (or other jurisdictions) that have few or no regulations, and/or lax enforcement, pertaining to striped bass.

2) They objected to the potential scenario of "non-resident" commercial trawlers being allowed to fish for striped bass in the EEZ just seaward (>3 miles) of the jurisdiction of a state in which striped bass were prohibited from either being taken with that gear (e.g., MA), or prohibited from being taken commercially with any gear (e.g., NJ).

3) They argued that the EEZ should remain a "sanctuary" for striped bass. Because of the strong opposition from the recreational sector noted above, and because there has been concern shared by all interests in recent years about excessive (i.e., over-target) fishing mortality on the stock (which now seems to have been allayed by more recent data), NMFS has been less than motivated to pursue removal of the EEZ moratorium. Nevertheless, NMFS has just recently been requested by the ASMFC to "initiate a legal and policy analysis regarding removing the moratorium in the territorial sea (3–12 miles) and require fish that are harvested in Federal waters be landed in accordance with state landing regulations." Therefore, the issue is about to be revisited.

2. We are having very serious problems with summer flounder in the Mid–Atlantic region. Why are we having such problems enforcing the quotas of these species and what can we do to remedy that problem?

How can it be that we have the highest historical summer flounder abundance and yet the fishery remains categorically overfished and significantly below the target abundance level set for this resource?

What are the agency's and council's plans to rectify this situation?

Response: Summer flounder occurs along the Atlantic Coast mainly from Maine through North Carolina and is managed cooperatively by the Mid–Atlantic Fishery Management Council (Council), the Atlantic States Marine Fisheries Commission (ASMFC), the states from Maine through North Carolina, and NOAA Fisheries. The Federal fishery in the exclusive economic zone (EEZ) is managed under the Summer Flounder, Black Sea Bass and Scup Fishery Management Plan developed by the Council and implemented by NOAA Fisheries. The states implement management measures developed by the ASMFC under its Interstate Fishery Management Plan for Summer Flounder. State regulations apply to vessels fishing in state waters, with the exception of vessels issued the Federal permits necessary to fish in the EEZ. A condition of the Federal permit requires those vessels to comply with Federal management measures even when fishing in state waters. As a result, if the states and NOAA Fisheries implement differing regulations, the restrictions on vessels depend upon their permit status. This complicates enforcement greatly, and can result in two vessels fishing side by side and subject to different requirements.

As defined in the FMP, the summer flounder stock is considered to be overfished because the biomass is not at the level required by the Magnuson–Stevens Act. Overfishing is also occurring, which means that the mortality caused by fishing (referred to as the fishing mortality rate) is too high. However, the current management program, which was established in 1993, has succeeded in rebuilding biomass and reducing the fishing mortality rate. The FMP rebuilding program established two important milestones. When the stock reaches the level of 53,222 mt, it will no longer be considered overfished, and when it reaches 106,444 mt it will be considered rebuilt. The total biomass in 1998 reached 38,600 mt, a considerable improvement over the low point of 16,000 mt in 1989, and approaching the point where it would no longer be considered overfished.

Since 1993, the MAFMC and ASMFC have met jointly to develop annual fishing measures that are then implemented by NOAA Fisheries and the states. This year, however, NOAA Fisheries issued a final rule for the summer flounder fishery that established total allowable landings (TAL) consistent with the biomass target specified in the settlement agreement with the Natural Resources Defense Council. The ASMFC originally did not set a TAL consistent with the biomass target specified in the settlement agreement, but with the fishing mortality target in its fishery

management plan. As a result, the initial ASMFC TAL was approximately 12 percent higher than the Federal TAL. The ASMFC later decided it would revise its TAL to be consistent with the Federal measure. To help remedy this year's situation and longstanding problems in the fishery, stakeholders (including plaintiffs from both industry and environmental groups) in the summer flounder fishery met in May to discuss a number of issues including:

- Determining better ways to manage the recreational fishery
- Developing complementary management objectives and methodologies for summer flounder
- Establishing management measures that recognize the limitations of the data collections
- Improving biological information available for use in the stock assessments
- Re-evaluating approaches to management for a rebuilding and rebuilt stock
- Developing better communication and working relationships among NOAA Fisheries, Council, ASMFC and stakeholders

The agency hopes that more stakeholder workshops can be held in the future to work on long- term approaches for this complex and often contentious fishery.

3. I understand we are seeing a separation, if you will, of state and Federal fisheries management programs for the same species, such as summer flounder and monkfish, to name two. What are the ramifications of these inconsistencies?

Response: Since 1993, the ASMFC and MAFMC have managed summer flounder cooperatively, and coordinated their management measures for many years. However, as was demonstrated this year by the differing TAL recommendations, there is no legal obligation for them to manage cooperatively. The two entities are not subject to the same legal requirements, and the ASMFC management process can enact management changes more quickly than the Magnuson–Stevens Act process. The ramifications range from trying to enforce a fishery where two vessels are fishing side by side under differing regulations to delays in setting the annual specifications because of differing goals and realities of the ASMFC, MAFMC and NOAA Fisheries, to costly lawsuits from all sides. As in all fisheries where the States and Federal Government share responsibility for management, inconsistencies in the various statutes and in fisheries management philosophies have to worked out over time.

4. I am hearing very positive reports on the agency's efforts with respect to cooperative research in the mid–Atlantic and Northeast regions. I believe all parties benefit from this type of joint science-based effort. What is your opinion of cooperative research and can we expect your support for more of this across all the regions?

Response: Recent recommendations from "An Independent Assessment of the Resource Requirements for the National Marine Fisheries Service" (the Ray Kammer Report) and the Marine Fisheries Advisory Committee (MAFAC) Report "A Perspective on the National Marine Fisheries Service: Issues and Recommendations" have highlighted the need for improved communication with and involvement of NMFS stakeholders in the operations of NOAA Fisheries. To address the need for more constituent involvement and to build improved working relations with stakeholders, NOAA Fisheries will continue to develop and expand cooperative and collaborative research programs with constituents in order to improve data collection and analysis, fishing methods and gear technology.

The Northeast Region's programs on monkfish and Illex Squid are examples of the type of collaboration NOAA Fisheries is working to expand in other regions. Scoping meetings with industry and other constituent groups are being planned in the Southeast, Southwest and Northwest Regions. Program support for NOAA Fisheries scientists to participate in the planning and execution of research surveys is being carved out of current base funding and additional support is being sought in the out years. NOAA Fisheries is strongly committed to improving and expanding communication with its stakeholders and the cooperative and collaboration research approach only strengthens our success in this area. It remains a top priority as we work toward better understanding of our marine resources and their effective management.

5. It appears the implementation of the essential fish habitat provision of the Sustainable Fisheries Act has resulted in some unintended consequences such as overly broad essential habitat designations and even litigation. I am concerned that as it is currently being interpreted, essential fish habitat protection seems to be totally disconnected from the health of the fish stock using the habitat. Considering the overarching goal of the Magnuson–Stevens Act for rebuilding and maintaining fish stocks, why

shouldn't habitat protection be linked to the actual health of our fish stocks?

Response: The EFH regulations do make connections between habitat protection and the status of the stocks. The regulations state that if a species is overfished, and habitat loss or degradation may be contributing to the species being identified as overfished, all habitats currently used by the species should be considered essential in addition to certain historic habitats that are necessary to support rebuilding the fishery and for which restoration is technologically and economically feasible. Once the fishery is no longer overfished, the regulations state that the EFH designation should be reviewed and amended, if appropriate. The regulations also note that where a stock is considered to be healthy, EFH for the species should be a subset of all existing habitat for the species.

[Dr. Hogarth's response to questions from the Honorable Robert Underwood follows:]

NMFS RESPONSES TO MAGNUSON–STEVENS ACT WRITTEN QUESTIONS

Questions from Mr. Underwood

1. There are more than 100 stocks that are considered to be overfished, yet rebuilding plans have been developed for only about 75 of them. Of the remaining 25, how many have been categorized as overfished for more than a year? If there are any, why has NMFS not stepped in, such as in the case of Atlantic tilefish, and developed its own rebuilding plans as the law requires?

The January 2001 Report to Congress on the Status of Fisheries of the United States finds that 92 stocks are considered to be overfished, and that there are 75 rebuilding programs. Of the remaining 17 stocks, four were declared to be overfished prior to 2000: tilefish, ocean pout, North Atlantic albacore and scup. The rebuilding program for tilefish is currently under Secretarial review. The rebuilding program for ocean pout is being developed in amendment 13 to the Multispecies FMP. North Atlantic albacore was declared to be overfished in 1999 but rebuilding programs must be developed with the International Commission for the Conservation of Atlantic Tunas (ICCAT). NOAA Fisheries was able to obtain agreement on an international quota that would aid rebuilding but that quota expired after one year. We continue to work to achieve a long-term rebuilding program for this stock. Finally, a rebuilding program for scup was disapproved, and the Council has not submitted a revised program yet. NOAA Fisheries works through the Councils and the industry whenever possible to develop rebuilding plans or other management actions. The Councils have been quite responsive in working on rebuilding programs, and NOAA Fisheries has not deemed it necessary to interfere with that process. In addition, although these stocks do not have formal rebuilding programs, management measures are in place to conserve the resource and serve to rebuild the stocks.

We would also point out that rebuilding plans have recently been approved for two of the 17 stocks mentioned above that do not have rebuilding plans. These are St. Matthew's Island blue king crab and Bering Sea snow crab. Therefore, there are now just 15 stocks that do not have approved rebuilding plans. Finally, it should be noted that two other stocks, Atlantic sturgeon and Atlantic croaker, are managed by the Atlantic States Marine Fisheries Commission, and do not fall under the responsibility of the Councils.

2. Do we have any idea how many and what kinds of seabirds are killed annually by commercial fishing activities? While the Magnuson–Stevens Act does not mandate the reduction of seabird bycatch, doesn't the US still have a responsibility to address this problem under the FAO Plan of Action to Reduce Seabird Mortality and the ESA? When do you plan to implement your National Plan of Action to deal with this problem and meet our obligations?

While NMFS does not have comprehensive data on seabird mortality in all federally managed fisheries, the agency has made considerable efforts in recent years to improve its knowledge of seabird bycatch. However, we have some data on seabird mortality in federally managed fisheries in both the Atlantic and Pacific. The information is most complete for Pacific longline fisheries, in particular the longline fisheries in Alaska and around the Hawaiian Islands. In the Alaska longline fisheries, we have estimates for the 1993–1999 period for the Bering Sea and Aleutian Islands (approximately 14,500 birds annually) and for the Gulf of Alaska (approximately 2,300 birds annually), and both figures include species breakouts among fulmars, gulls, shearwaters, and albatrosses. Reasonably reliable mortality data is also avail-

able for two albatross species incidentally caught in the Hawaiian longline fisheries. Available 1998 data give the following annual estimated numbers of albatross species taken in the Hawaii-based pelagic longline fisheries: black-footed albatross (1,963), and Laysan's albatross (1,479).

NMFS agrees that the FAO International Plan of Action for the Reduction of Incidental Catch of Seabirds in Longline Fisheries (IPOA on seabirds) has generated a responsibility for the United States to address this problem. While the FAO agreement is voluntary and creates no binding obligations, the United States actively promoted this instrument and accepts responsibility to implement its provisions. Finally, seabird mortality in fishing operations may, depending on the circumstances and species involved, trigger mandatory responsibilities under the ESA and other laws.

In conformity with the FAO IPOA on seabirds, NMFS and U.S. Fish and Wildlife Service (FWS) jointly developed a national plan of action (NPOA/seabirds), and NMFS formally submitted this document to FAO at the last biennial meeting of the Committee on Fisheries in February 2001. NMFS and FWS believe that the United States can ultimately achieve significant reductions in seabird mortality in longline fisheries in federally managed waters through a policy that combines: (1) the U.S. national plan of action that implements the FAO IPOA on seabirds; (2) adherence to the FAO Code of Conduct for Responsible Fisheries; (3) specific provisions of certain FMPs and FMP amendments; and (4) the guidelines proposed in a June 1998 NMFS document, Managing the Nation's Bycatch. Clearly, this is a partnership effort among NMFS, FWS, the Councils, the owners and operators of longline fishing vessels, and conservation organizations.

Implementation of the U.S. national plan of action will be carried out mainly on a regional FMP-by–FMP basis. In some federally managed fisheries, such as the longline fisheries for groundfish in Alaska and pelagic species around the Hawaiian Islands, we have sufficient information to effectively move forward with plan implementation. In other federally managed longline fisheries, however, assessments of seabird bycatch still need to be conducted before specific measures can be developed.

The initial process for NPOA/seabirds implementation will occur over the course of the next four years. Assessments of all U.S. longline fisheries will be completed within two years. In those fisheries where a seabird bycatch problem is found to exist, a mitigation program will be developed within three years and implemented within four years. In all longline fisheries where an initial determination is made that no seabird bycatch problem exists, a re-assessment will be conducted within four years of such a determination. Finally, it must be noted that NMFS will have to determine what resources, including staff and specific funding levels, can be assigned to implement the NPOA/seabirds in light of all our other commitments.

The status of implementation of the NPOA/seabirds varies among Council jurisdictional areas and longline fisheries. Some Councils need to start or complete seabird bycatch assessments for the longline fisheries within their jurisdictional area, and each fishery may require individually tailored seabird management measures. The NPOA/seabirds provides the Councils with flexibility to develop effective seabird mitigation measures for individual longline fisheries. In U.S. longline fisheries where seabird bycatch problems are already known to exist, including Alaska demersal groundfish and Hawaii pelagic longline fisheries, regulations are already in place or under development to mitigate seabird bycatch. The North Pacific and Western Pacific Fishery Management Councils are well positioned to develop seabird bycatch reduction programs needed to implement the NPOA/seabirds because they have already conducted seabird bycatch assessments and developed regulations to implement seabird bycatch reduction measures.

3. Why is NMFS only preparing Environmental Impact Statements on most FMPs and their Essential Fish Habitat requirements and not on all of them? How are the specific FMPs chosen over others?

In addressing the new requirements of section 303(a)(7) of the Magnuson–Stevens Act, the Councils generally prepared Environmental Assessments on the FMP amendments that described and identified essential fish habitat, addressed adverse effects on such habitat caused by fishing, and identified other actions to encourage conservation of such habitat.

On September 14, 2000, the U.S. District Court for the District of Columbia issued a decision in a lawsuit filed by seven environmental organizations and two fishermen's associations. The suit challenged whether NMFS and the Councils had adequately evaluated and minimized the effects of fishing on EFH as required by the Magnuson–Stevens Act and NEPA. The court upheld NMFS' actions under the Magnuson–Stevens Act, but ordered NMFS to conduct new and more thorough NEPA analyses to evaluate a wider range of alternatives. A total of 22 FMPs prepared by the New England, Caribbean, Gulf of Mexico, Pacific, and North Pacific

Councils are affected by the court order. In carrying out the Court order, NMFS has decided that EISs should be developed for the EFH amendments that were the subject of the lawsuit.

Negotiations with the plaintiffs in the above lawsuit began in September 2000, and a settlement is expected soon. EISs will have to be completed within 24 months after the date of the lawsuit's settlement, or in mid–2003.

The Mid-Atlantic Council plans to prepare EISs for the EFH provisions of four of its FMPs when it resubmits sections that were disapproved by NMFS when they were submitted for Secretarial review in 1999.

4. It appears the Councils have developed few, if any, measures to minimize the damage to habitat that is caused by different types of fishing gear as required by the SFA. What information is needed to ensure better compliance with this requirement? Why are these plans being approved?

The Councils and the agency have made considerable efforts to mitigate the adverse effects of fishing activities on EFH. Most of the FMP regulations in place that in any way restrict fishing activities also have some collateral benefits for EFH. For example, the North Pacific Council established areas closed to groundfish trawling and scallop dredging in the Bering Sea and Gulf of Alaska to reduce potential adverse effects to crab habitat. The New England Council established year round closures to all bottom-tending mobile fishing gear within areas of Georges Bank and banned the use of "streetsweeper" trawl gear (a modification to trawls that covers the footrope with bristles similar to a streetsweeper) because of its increased contact with bottom habitat. To reduce damage to coral reef and live bottom communities, the South Atlantic Council prohibits the use of pots in the snapper/grouper fishery, and the Western Pacific Council prohibits the use of bottom trawls, bottom-set nets, explosives and poisons.

NMFS and the Councils need more information on the habitat effects of certain gear types to help us understand how fishing activities influence habitat functions for managed species, which will enable us to determine whether additional measures are warranted. We are conducting some of that research now, and the President's budget includes a request for funding to expand those efforts.

NMFS approved EFH FMP amendments that did not contain new protective measures because the agency determined that the FMP met the requirement to minimize to the extent practicable the adverse effects of fishing on EFH. The Court ruling mentioned above in our response to question 3 upheld those approvals under the Magnuson–Stevens Act. However, as explained above, the EISs being prepared in accordance with the Court order will evaluate a wider range of alternatives for minimizing the effects of fishing on EFH.

5. Can you please clarify what you meant in your testimony about a lack of flexibility in overfishing definitions and measures? How do you make a definition flexible and yet make it standard to all fisheries? Isn't Maximum Sustainable Yield (MSY), the standard used to define overfishing, generally a range and not a precise number? If so, then why is there not flexibility?

In our written testimony on Magnuson–Stevens Act reauthorization before the House Subcommittee on April 4, we explained that "(s)ome are concerned about a perceived lack of flexibility in developing these definitions (of overfishing) and associated management measures." However, the same testimony stated that "(s)ince issuing national standard guidelines in May, 1998, NOAA Fisheries scientists have been helping the Councils find the needed flexibility to create overfishing definitions within the scope of the law and our guidelines." Essentially, our view is that there is ample flexibility in the current guidelines relating to overfishing determinations, and no need for exact uniformity among fisheries with very different characteristics.

The National Standard 1 guidelines, and the more detailed technical Guidance on this issue, were developed to provide flexibility within the boundaries set down by the Magnuson–Stevens Act. A great many acceptable variations on harvest control rules have been devised and implemented since 1996.

MSY is indeed a range. When MSY-based reference points cannot be calculated or are deemed too unreliable, proxies (simpler reference points that are believed to give similar answers to MSY-based reference points) can be used instead. Such proxies may not require information on stock-recruitment relationships or MSY-related reference points. For example, ratios of catch per unit of effort (CPUE) from research vessels or commercial or recreational vessels can be used as a substitute for Biomass/Maximum Sustainable Yield estimates, and the status of the fishery relative to this reference point. As a last resort, estimated commercial or recreational catches combined with anecdotal information on catch rates can be used as a proxy for MSY.

6. In his testimony, Mr. Crockett spoke extensively about the NMFS "mixed stock exception" to the prohibition on overfishing and the fact that

these species only receive protection when they are threatened with extinction under the ESA. While many have questioned the legal authority for this exception and the logic of waiting until a species is approaching extinction before protecting it, if this is the policy, then why is your agency not addressing the overfishing of grouper species on the ESA candidate list that are being harvested in the Gulf?

It is not NMFS' policy to postpone protective measures for overfished stocks in multispecies fisheries until those stocks are threatened with extinction. According to the National Standard Guidelines, overfishing may be tolerated only in certain limited circumstances. Such exceptional overfishing may continue only after three tests are applied:

- the FMP establishing the exception must demonstrate that it will generate long-term net benefits to the Nation;
- other mitigating measures have been considered and rejected; and
- the resulting rate of fishing mortality will not place the species in danger of requiring protection under the ESA.

The question also addresses actions to address overfishing of grouper species in the Gulf of Mexico that have been placed on the ESA candidate list. The NMFS candidate species list highlights species for which NMFS has concerns but does not have the information needed to determine whether ESA listing is warranted. By placing a species on this list, NMFS hopes that more research and conservation efforts will be directed at this species. The NMFS candidate species list does not, however, have regulatory implications.

NMFS added Nassau grouper and jewfish (recently renamed goliath grouper) to its candidate species list in 1991. We have funded research over the years on Nassau grouper and goliath grouper, and are in the process of compiling available information to complete an ESA status review. Once the status review is complete, the NMFS Southeast Region will make a recommendation on whether either of these species needs to be listed as threatened or endangered under the ESA, after taking into account ongoing conservation efforts for these species.

All harvests of goliath grouper have been prohibited in the Gulf of Mexico and South Atlantic federal waters since 1990 (and in the Caribbean since 1993). Harvests of Nassau grouper were banned in 1990 by the Caribbean Fishery Management Council in the FMP for the Reef Fish Fishery of Puerto Rico and the U.S. Virgin Islands; in 1992 by the South Atlantic Fishery Management Council in the FMP for the Snapper–Grouper Fishery of the South Atlantic Region; and, most recently, in 1997 by the Gulf of Mexico Fishery Management Council in the FMP for Reef Fish Resources of the Gulf of Mexico. Therefore, there is no targeted fishery for these two species.

Warsaw grouper and speckled hind were added to the NMFS candidate species list in 1997. The Gulf Reef Fish FMP limits recreational fishing for groupers to five groupers per vessel per day, and only one of these five can be a speckled hind and one can be a warsaw grouper. The commercial fishery for the deep-water grouper complex, which includes both of these species, is limited to 1.6 million lbs. (round weight) per year.

In addition, the NMFS Southeast Region is planning to make a motion for a rebuilding program under the Magnuson–Stevens Act for groupers at the Gulf of Mexico Fishery Management Council. This program would provide for rebuilding of Nassau grouper in 20–30 years, and goliath grouper in 30–35 years. These long rebuilding periods are necessary because these species do not become sexually mature until as much as 8 to 9 years.

In summary, NMFS is making progress in protecting and rebuilding these grouper stocks under the Magnuson–Stevens Act. As Mr. Crockett states, it is not logical to wait until a species is approaching extinction before protecting it. NMFS has implemented protective measures for these species.

7. How difficult has it been for the Councils to meet the deadlines required to comply with the new requirements imposed by the SFA? What tools do the Councils need to better comply with the new requirements?

This is a difficult question to answer because the situation varies from Council to Council and from fishery to fishery. NMFS believes that the Councils have in fact been largely successful in meeting the large majority of SFA-mandated deadlines. At the same time, it is also true that the Councils have had difficulties meeting some of the deadlines in the 1996 SFA amendments to the MSA. As a general comment, the major reasons for these delays are, first, the unavailability of sufficient biological and socio-economic data, and, second, the absence in some cases of sufficient human resources to complete all the documents by the required deadlines. NMFS would like to take this opportunity to point out that the President's Budget

proposes increases in certain budget lines that should make these tasks easier in the future.

8. Would closer cooperation between the Councils and NMFS during FMP development speed the approval process and ensure regulations promulgated by NMFS to implement the new FMP or amendment? Might this also create a reduction in the delay time between when an amendment is given to NMFS for evaluation and when the final publishing of it takes place?

NMFS supports good working relations and close cooperation between the agency and the Councils in FMP development and the approval process. NMFS staff attend many Council meetings, participate on numerous Council plan teams, and prepare many of the analyses of plan regulations. The agency also regularly meets with Council Chairs and Executive Directors to review, among other things, the working relationship between NMFS and the Councils.

At the same time, the FMP development and approval process can be somewhat slow. NMFS acknowledges that delays could be reduced, and decisionmaking improved, by spending more time on analysis of the effects of various alternatives earlier in the FMP process, before the Council votes on an FMP or amendment.

Toward those ends, as we stated in our April 4, 2001 testimony, NMFS continues to support a re-coupling of, first, the FMP and plan amendment review process and, second, the review and approval of implementing regulations. The two processes were inadvertently de-coupled in the 1996 SFA amendments to the Magnuson–Stevens Act, with the result that NMFS could possibly have to approve an FMP or plan amendment before and without the benefit of considering public comments on the implementing regulations. Effectively, NMFS supports a return to the procedures in place before 1996.

We also support reinstating the initial Secretarial review. If this authority is restored, the Secretary can then return an unacceptable plan immediately to the Council, who in turn can make the changes necessary to have the plan approved in a timely fashion.

With these and perhaps other changes, we hope we can maintain and strengthen our good relations with the Councils, and reduce the delays in FMP and plan amendment approval.

9. Other than the North Pacific Council which had a specific mandate in the SFA to reduce bycatch in the fisheries it manages, have any of the Councils adopted NEW measures intended to reduce bycatch or the mortality of bycatch as they were required to do by the SFA? If not, why not?

The 1996 SFA amendments to the Magnuson–Stevens Act mandate reductions of bycatch in all federally managed fisheries through National Standard 9. Bycatch mitigation is a national policy, under the Magnuson–Stevens Act and other statutes that protect species caught incidentally in marine fisheries. Largely for that reason, the agency launched a review of this issue in early 1996, just before the SFA amendments to the Magnuson–Stevens Act were passed by Congress, and issued its findings in June 1998 in a report: Managing the Nation's Bycatch. NMFS intended this report to serve as a national plan, which would provide guidance to the Councils on how to deal with this complicated issue. A number of other federally managed fisheries besides those in the North Pacific have adopted measures to reduce the incidental catch of seabirds, sea turtles, and a number of fish species.

10. If the Councils are lacking data on bycatch, why have they not adopted the "standardized reporting methodologies to assess the amount and type of bycatch occurring" in these fisheries, to provide them with the data they need to reduce bycatch? Obviously, existing methodologies must be inadequate, or the data would be available.

Obtaining reliable and useful data on bycatch in federally managed fisheries is often a difficult task; the practical obstacles vary significantly from fishery to fishery. As a result, the Councils have had to deal with this issue on a case-by-case basis.

In some fisheries, data on bycatch amounts and rates remains inadequate, in spite of the Councils' and NMFS' efforts to improve this information. Different fisheries use different methodologies, depending on fleet size and composition. Observer coverage is not uniform in all federally managed fisheries, and could be improved in most of them. We do not interpret the Act as requiring the same methodologies in all fisheries, but rather as requiring reports that produce standardized data within a fishery.

Again, the President's Budget proposes increases for observer coverage and assessments which, if enacted, should improve the amount and quality of bycatch data.

11. For those fisheries for which bycatch has been reported to have been reduced, is it the case that fishermen are actually minimizing the amount

of bycatch species that they catch, and reducing the mortality of those they do catch, or are they simply retaining the same levels of bycatch and implementing some sort of full utilization system, such as turning it into fish meal?

The answer to this question is complex, and depends on the fishery and its specific circumstances. In the Alaska groundfish fishery, as one example, there are regulations mandating full utilization, pursuant to a report mandated by the 1996 SFA amendments in section 313(i). In other fisheries, for example in the Gulf of Mexico, reductions in bycatch have been achieved through the mandatory use of more selective fishing gear, i.e., Turtle Excluder Devices and Bycatch Reduction Devices. In still other fisheries, bycatch has been contributed to charitable organizations, also pursuant to a SFA-mandated study.

It should be noted that the definition of "bycatch" in section 3(2) does not address how fish are utilized. Processing it into fish meal excludes a fish from being categorized as "bycatch" under the Act.

12. The latest report to Congress on "Status of Fisheries of the United States" indicates that there are more than 650 stocks for which the biomass is unknown or undefined, making it impossible to determine if they are overfished. Should we, as stewards of the resource, be concerned about this?

NMFS is concerned about the status of our scientific knowledge of fisheries resources under federal jurisdiction, and, for that reason, is striving to improve and update our understanding of the state of these stocks. That said, it is also true that the large majority of the "unknown" 650 stocks are relatively minor stocks, with minimal landings. In fact, in the latest report to Congress on the status of fisheries, the agency explicitly distinguished major and minor stocks. "Minor" stocks are those with landings below 200,000 pounds (about 100 metric tons). It is noteworthy that, in the report to Congress for 2000, these "minor" stocks accounted for 83 percent of the stocks whose status was either unknown or undefined.

There is no intent by the agency to minimize the importance of the unknown stocks to their ecosystems; we simply wanted to place the information in the Congressional report in a more meaningful perspective. Alternatively, it should be noted that NMFS has considerable information on most of the stocks classified as "major." Given limited funding, NMFS must prioritize the use of its resources and, in so doing, has focused on the more commercially and recreationally important stocks. Looking ahead, as the agency and the Councils move toward ecosystem-based management plans, we will place progressively more emphasis on research on these "minor" stocks.

13. The Magnuson–Stevens Act, as does most laws, requires that management decisions be made using the best scientific information available. Yet, the fishing industry has frequently expressed frustration that this means that many fisheries are managed with data that is outdated or inadequate, triggering restrictions that they believe may be unnecessary. At the same time, some in the environmental community believe that inadequate data results in too little protection for many fish stocks. What can be done to improve the fisheries data we use to make management decisions? More importantly, what can be done to restore confidence in these biological assessments?

NMFS is taking a number of actions to improve the quality and quantity of fisheries science.

In addition, the President's Budget requests $13.3 million over fiscal year 2001 enacted levels for stock assessments. Four essential elements to using the best available science for conservation and management measures are (1) obtaining adequate quantities of data; (2) obtaining data of adequate quality; (3) proper interpretation of these data; (4) peer review of this process; and (5) placing greater emphasis on cooperative research.

NOAA Fisheries is actively engaged in improving the science upon which resource management decisions are based through implementation of the Stock Assessment Improvement Plan (SAIP).

The SAIP seeks to improve the comprehensiveness, timeliness, quality, and communication of NMFS stock assessments; mine existing databases to evaluate status determination criteria for species of "unknown" status; conduct adequate baseline monitoring for all federally managed species; upgrade assessments for FMP core species; and develop next-generation assessment models that explicitly incorporate ecosystem considerations.

Specific activities include:

- New Stock Assessment Methods - Expand the pool of senior level scientists doing cutting-edge methods development. Point of contacts in each Center will

coordinate methods research, with a concurrent emphasis on augmenting university partnerships to develop future assessment scientists.

- National Stock Assessment Toolbox - When completed, this standardized package of tested, peer-reviewed and approved analytical tools and assessment models will allow better, more reliable, and repeatable assessments to be made.
- NMFS–University Partnerships and Graduate Stock Assessment Fellowships - Science Centers will collaborate with Sea Grant universities to enhance stock assessment and population dynamics study programs and research capabilities. NMFS/OAR stock assessment fellowships will increase in number and scope, and focus on new projects that address the agency's highest priorities.

Another important element is modernization of NOAA's fleet of fisheries research vessels.

- A contract has just been signed for the construction of a state-of-the-art, acoustically quiet FRV to conduct fisheries monitoring and research surveys.
- The FRV is an essential part of NOAA's plan to meet the rapidly growing demand for high-quality at-sea data, and to maintain the integrity of existing data series.
- Meeting those demands also depends on significant growth in the number of days at sea aboard chartered academic and industry vessels.

NMFS is also striving to apply more advanced technology in research surveys.

- NOAA Fisheries is exploring fisheries applications for advanced technologies that would improve the efficiency and effectiveness of stock assessment surveys.
- Advances in airborne and satellite remote sensing, hydroacoustic survey, and signal processing technologies hold great promise for fisheries applications by adding information presently not available and providing alternative sources of survey information for some species and their habitats.

[Response to questions submitted for the record by Mr. Gilford follows:]

MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

James H. Gilford, Ph.D.
Chairman

Robert J. "Dusty" Rhodes
Vice Chairman

ROOM 2115 FEDERAL BUILDING
300 South New Street
Dover, Delaware 19904-6790
302-674-2331
FAX 302-674-5399

Daniel T. Furlong
Executive Director

Christopher M. Moore, Ph.D.
Deputy Director

May 2, 2001

The Honorable Wayne T. Gilchrest, Chairman
Subcommittee on Fisheries Conservation,
Wildlife & Oceans
US House of Representatives
Washington, DC 20515

Dear Chairman Gilchrest:

On behalf of the chairmen of the eight Regional Fishery Management Councils, I thank you for the opportunity to appear before the Subcommittee on Fisheries Conservation, Wildlife and Oceans to present testimony on their behalf concerning reauthorization of the Magnuson-Stevens Act and the implementation of the Sustainable Fisheries Act.

Except as noted in my statement, the testimony I presented is the consensus of the eight council chairmen developed at the annual council chairmen's meeting in May, 1999 and 2000. Following my appearance before the subcommittee, I have been asked to respond to five sets of questions which members of the Subcommittee did not have time to ask during the hearing. I am doing so at this time by means of the material accompanying this letter.

Please understand that answers provided here to the five sets of questions represent my personal opinions and judgements based on my eight years as a member of the Mid-Atlantic Fishery Management Council and are not necessarily consistent with those of the other Council Chairmen or other members the Mid-Atlantic Fishery Management Council of which I am the chairman. I have taken the liberty of sharing the Subcommittee's question with the other council chairmen so that at the annual council chairmen's meeting later this month, they may, if they wish and if it pleases the Subcommittee, prepare a response to the Subcommittee's questions.

Again, on behalf of the Fishery Management Council Chairmen, I thank you and the members of your Subcommittee for the opportunity to appear before the Subcommittee as it takes up the important matter of reauthorization of the Magnuson-Stevens Act and the implementation of the Sustainable Fisheries Act.

Sincerely,

James H. Gilford
Chairman

Enclosures
cc: Chairmen, Regional Fishery Management Councils

Answers to Questions From Subcommittee on Fisheries, Conservation, Wildlife and Oceans, Magnuson Reauthorization Hearing to Dr. James H. Gilford

I have been asked to respond to the following questions resulting from my appearance before the Subcommittee on Thursday, April 5, 2001. The testimony I submitted at that time was presented on behalf of the eight Fishery Management Council Chairmen and represents the consensus of the Council Chairmen which was developed at the 1999 and 2000 annual Council Chairmen's meetings. In the following, I offer my personal response to the Subcommittee's questions. Please understand that it does not represent the position of the other Council Chairmen or the Mid–Atlantic Fishery Management Council of which I am a member. I have taken the liberty of sharing the questions with the other Council Chairmen so at their annual meeting later this month they may, if they so choose, offer a response to the Subcommittee's questions.

In the rebuilding of overfished stocks, some have argued that unreasonable rebuilding targets have been set by either the Agency or the Councils. How are these rebuilding targets established? If the complaint is correct that unreasonable targets are being set, is this a problem with the Act or with the implementing guidance from the agency?

Rebuilding targets are based on the population dynamics of each species of concern. Councils are required to use the best scientific information available in developing conservation and management measures. Rebuilding targets based on the best available scientific information are not unreasonable management goals. Some problems with specific targets may occur in instances involving multispecies interactions or in situations in which there is less scientific information available on the population dynamics of a species but the Sustainable Fisheries Act (SFA) addresses those possibilities.

In its April 2000 report to Congress, the General Accounting Office noted that although NMFS reported that it did not know the status of 75 percent of the species (and 30 percent of the stocks) that they manage, the 25 percent that it did know the status of represented about 90 percent of the total weight or volume of all species in U.S. waters. Do you feel this is an accurate statement? Could you comment further on this?

I do not know if the statement is accurate or not, but I suspect that, without some qualification, it is not accurate. If the statement really is intended to apply to all species-in U.S. waters, how is it possible to know that 25 percent of the species in U.S. waters represent 90 percent of the total weight of all species since the status of the other 75 percent is unknown? If the statement is referring to landings by species, it probably is accurate.

Some members of Congress have argued that the identification of EFH by the Councils was far too broad and too sweeping in its implementation. The Agency is now urging Councils to identify Habitat Areas of Particular Concern (HAPC) which are more discrete areas. Isn't that what Congress actually wanted NMFS to do in the ,first place? Do we need to create a new designation to accomplish what was originally intended?

The initial EFH guidance received by the Councils from NMFS did suggest a broad rather than a discrete designation of EFH as intended by Congress. In my opinion, the agency has failed to provide consistent and rationale guidance to the Councils on EFH implementation. A new designation probably is not necessary since the use of HAPC designations now allows the Councils to identify discrete areas of EFH which are more in line with the intent of Congress. However, NMFS should immediately publish the EFH guidelines in final form.

Last Congress, this Subcommittee held a hearing on Essential Fish Habitat issues. At that time, one of the concerns raised by the Agency was that there was not adequate funding available to fund research into habitat issues. If funding is scarce, does it make sense to look first at the habitat needs of those commercially important species?

Yes, but it makes even better sense to look first at the habitat needs of species which are economically important to both commercial and recreational fishermen.

One area of concern that has been identified by a number of reviewers of Federal fisheries management is that of the adequacy of scientific data on which management decisions are made. A second concern is that the

regulated community does not have confidence in the scientific information generated by the Agency. How can we get better data and get buy-in by the regulated communities?

There are a number of ways to get better data, such as mandatory reporting of relevant data by commercial fishermen, dealers and party/charter operators, for example. Significant increases in funding for observer coverage specific to commercial fisheries and for increasing the collection of fishery dependent and independent data also would help significantly in that regard. Cooperative programs in which industry is a partner in the collection of fisheries data are a help in achieving acceptance of those data by the regulated community. To be of value, these programs must be designed and implemented in such a way that they meet the basic requirements for scientific validity. In the recreational sector, additional funding for the Marine Recreational Fishery Statistics Survey (MRFSS) coupled with more public education and outreach is needed to build public confidence in the MRFSS data.

We have seen a number of cooperative research survey initiatives that were cosponsored by industry in the last few years. How does the Agency use the information from these cooperative surveys, in addition to their own survey information, to determine stocks size and total allowable catch levels?

In the specific instance with which I- am familiar (clam industry/NMFS surfclam and ocean quahog survey), information collected was incorporated into the assessment of stock status and into management decisions for the fishery. That project was planned and implemented cooperatively by scientists and fishermen to produce scientifically sound and useful data for stock assessment and management decisions. Industry funded their portion of the research also.

Are there other sources of funds that should be considered to gather better data? Have any of the environmental groups funded this type of research?

Yes. Quota set-asides which are provided for in the Sustainable Fisheries Act is a source of funding support for collecting fisheries specific data. If the prohibition on collecting fees beyond administrative costs is removed from the Act, permits and user fees are another potential source of funds for species specific data collection. There may be, but I am not aware of any instance in which an environmental group has funded the collection of fisheries management data on marine fish.

The Magnuson Act requires Fishery Management Plans to "minimize" to the extent practicable adverse effects on such habitat caused by fishing..." Since the Councils have identified the entire EEZ as EFH, this will mean that the Agency must collect data on gear impacts for the entire EEZ (approximately 3.4 million square miles). Should the Act be amended to apply the minimization requirement only to the HAPC areas?

Yes, the minimization requirement should be applied only to the HAPCs. It makes more sense given the importance of the HAPCs and it's more realistic given the relative size of the areas involved, the limited information currently available on gear impacts and the magnitude of the staffing effort required.

The Act currently has been interpreted to prohibit the gathering of economic data from processors. Why was this restriction put in place and should this issue be re-examined? Are there ways of gathering this proprietary data and ensuring confidentiality?

There is some confusion about the prohibition on collecting economic data from processors and the issue should be re-examined. Economic information is essential in the preparation of fisheries management plans and amendments as required by the SFA. The Act gives the Councils discretionary authority to require fish processors who first receive fish subject to a fishery management plan to submit data which are necessary for the conservation and management of the fishery (other than economic data). [303 (b)(7)]. The Act also allows the Councils to request the Secretary to implement an information collection program for the collection of information about a fishery other than information that would disclose proprietary or confidential commercial or financial information regarding fishing operations or fish processing operations. [402 (a)]. The wording of the discretionary authority [303(b)(7)] is in conflict with the requirements for preparing fisheries management plans and is in conflict with section 402(a). Yes, there are ways of gathering economic data and ensuring confidentiality. An effective process I am familiar with, as an example, was implemented under the Toxic Substances Control Act.

You recommend lifting the moratorium on the implementation of IFQ management systems; however, you are silent on the need for statutory guidelines or criteria. Can you expand on your interest in using this type of management system and the need for guidance in the statute?

I believe IFQ and ITQ management systems can be useful and effective management tools for some fisheries under certain conditions but not necessarily in a one-size-fits-all mode. I believe the Councils should have IFQ and ITQ systems available as management options. Statutory guidelines should include provisions for fees and for auctioning of harvest rights and limitations on the accumulation of harvest rights.

You recommend that the Councils be authorized to charge fees for observer programs. Have any Councils developed observer programs that are hindered by the lack of this authority? Would the Councils object to being required to submit specific requests to Congress to gain this?

The Council of which I am a member has not developed an observer program. Instead, the Council is dependent on the NMFS to provide observer data but, unfortunately, the Agency's program is limited by funding which is dedicated to providing observers for marine mammals and protected species coverage rather than observer programs for specific finfish/shellfish fisheries. The North Pacific Council has an observer program funded by industry participants through an amendment to the Act. The same provision should also be available to other Councils. Submitting specific requests to Congress would be less desirable than having authority established in the Act allowing the Councils to charge fees for observer programs.

Several of the witnesses have noted that the use of MSY is problematic. Should Congress look at this term and, if so, what target should (Congress look at) in terms of rebuilding plans?

Congress should re-examine the requirement to use MSY for all species. In those instance for which there is sufficient information, the biomass which produces MSY should be considered as the target for rebuilding. However, information needed to establish a reliable MSY is not always available. In addition, MSY for a species may change as a result of changes in such things as fishing practices, available habitat or habitat carrying capacity. Over-estimating MSY can result in rebuilding schedules more restrictive than necessary to fishing communities.

QUESTIONS CONCERNING MAGNUSON ACT REAUTHORIZATION

Many factors have been identified as potential problems in US fisheries: overfishing, overcapitalization, insufficient data, inappropriate management structures, ecosystem impacts of fishing. Which of these do you believe is the most pressing problem to be addressed?

Overcapitalization because of its direct cause and effect relationship to overfishing; insufficient data is the second most pressing problem.

Can you give examples of previously overexploited federally managed species that have successfully recovered over the past 10 years? What species would you expect to add to the success list in 5–10 years? Are there any commonalities that might enhance our chances of success with other overexploited species? What have been the major barriers to success?

Surfclam is an example of a previously overexploited federally managed species which has successfully recovered in the past 10 years and summer flounder is very nearly recovered. All of the other species managed by the Mid–Atlantic Fishery Management Council are expected realistically to be recovered within the next 10 years or sooner. The application of hard quotas, limits on participation, and keeping management plans in place long enough for them to work are commonalities which will enhance the chance of success in achieving recovery of other overexploited species. Major barriers to success are: the lack of sufficient fisheries data including adequate sea sampling data, Congressional constraints on available management tools, law suits and court mandated changes affecting the way specific species are managed. Another barrier is the lack of a mandate requiring that a species which is managed by the Atlantic States Marine Fisheries Commission in state waters and by the Mid-Atlantic, South Atlantic, or New England Fishery Management Councils in the EEZ be managed as one stock under one management plan.

What are the pros and cons of the "overfishing" and "essential fish habitat" sections of the Sustainable Fisheries Act of 1996? What are the administrative burdens and benefits to Council staff? Can the Council meet the

objectives they are charged with under these sections? Would it be useful to clarify the concept of essential fish habitat and to provide a clearer mechanism for evaluating costs and benefits?

The overfishing section provides guidelines for establishing standards or goals which allow for stocks to rebuild and those are appropriate and constructive contributions to the management process. The recognition of the importance of habitat to sustainable fisheries in the EFH section is likewise an appropriate and constructive contribution. However, I believe the same section also allowed for the development of guidelines for designating EFH that, at least initially, exceeded the intent of Congress. Those guidelines have undergone several revisions and still have not been published in final form. Guidance to Council staff has changed frequently which has created an unnecessary burden on staff resources. Yes, it would be useful to clarify the concept of EFH and to have a clearer mechanism for evaluating costs and benefits.

Does the time required to promulgate federal fishery regulations hinder effective management?

The lengthy technical and legal reviews often hinder timely implementation of management measures and recommendations.

MANAGEMENT OPTIONS

In your opinion, what is the primary benefit and the primary drawback of the existing system of Regional Fishery Management Councils? What changes might lead to more successful management?

Opportunity for direct involvement in the management process by affected user groups and fishing communities is the primary benefit of regional management. The drawback is that the action of one Council may conflict with or otherwise affect the operation of another Council based, for example, on regional adherence to national standards. Providing new funding to the Councils commensurate with the additional staff effort and resources needed to meet the new requirements mandated by the SFA would enhance management efforts.

How might the Magnuson–Stevens Act be amended to address the problem of frequent industry opposition to strong conservation and management measures? Should fishermen be given more or less influence over the management measures adopted?

I don't believe the Act should be amended simply because of frequent industry opposition to strong conservation and management measures. Industry opposition should and can be addressed under existing provisions, and management measures can be modified if a change is appropriate and consistent with management goals. Fishermen should be involved in an advisory capacity in identifying possible management options and in meeting rebuilding requirements and alternative approaches to management. I believe that fishermen already have a reasonable and sufficient opportunity through membership on Councils, on advisory committees and through the public participation process to influence management measures.

Should the blanket moratorium on individual fishing quota programs (IFQs or ITQs) be lifted? If no, what is your main reason for opposing those programs under all circumstances? If yes, should there be nationwide standards for quota programs?

The blanket moratorium on IFQs and ITQs should be lifted and the Councils should have those measures available as possible management options. IFQs and ITQs provide fishery managers an option for assuring stakeholders long term benefits of rebuilding programs. There should be minimal national standards on transferability and the ability to charge fees but Councils should have the flexibility to develop IFQ or ITQ programs which recognize the unique characteristics of specific fisheries.

Current management practices address species independently, attempting to achieve maximum sustainable yield for each species. Is this realistic? Can all species be exploited at maximum sustainable yield levels simultaneously?

It probably is neither feasible nor realistic to attempt to attain MSY for all species or all species in a fishery complex simultaneously. The management objective should be to achieve optimum yield (OY) for each managed species; OY accounts for all relevant economic, social and ecological factors.

Moves toward more decentralized fisheries management in the Maine lobster fishery, and in other fisheries here and abroad have shown some success in terms of conservation and social and economic outcomes. Is more decentralization of management desirable in some of our fisheries? If so, should the Magnuson–Stevens Act be amended to encourage experiments with decentralized approaches to fisheries management?

Management decisions should remain at the Council level. The development of fishery cooperatives might be encouraged to provide a means for allocating the allowable landings to affected user groups. However, the act should not be amended to encourage decentralization of fisheries management.

Are there changes needed to influence how Councils meet NEPA requirements in developing and amending fishery management plans?

The Councils should not have to address NEPA requirements in the development of fishery management plans or in amending plans since Magnuson–Stevens already requires that social, economic and ecological issues be addressed.

Would it be better to assign a single council staff person to be responsible for the entire process of data collection, scientific assessment, and provisions of management advice for each fishery?

No. Assigning responsibility for the entire process is not a feasible option.

ENFORCEMENT AND COMPLIANCE CONCERNS

The vast area of our EEZ, the hundreds of fishing ports and tens of thousands of fishing craft make monitoring, control and surveillance extremely difficult. How might the Magnuson–Stevens Act be amended to encourage the use of alternative methods for strengthening compliance with regulations? Should non-governmental bodies be allowed to supplement existing enforcement resources?

Some approaches to consider are: encourage more use of vessel tracking systems; require all recreational and commercial fishermen to have permits which are revokable in the event of illegal acts; implement a gear certification program in all fisheries where gear regulations exist (legal would be certified); encourage the use where appropriate of ITQ programs (the ITQs in the clam fisheries have increased compliance with regulations). Non-governmental bodies should not be used for enforcement.

The U.S. spends $660 million annually on fisheries management, mostly enforcement of the Magnuson–Stevens Act. Other fishing nations, for example, Australia, Canada and New Zealand, have implemented user charges to recover the costs of fishery management services. Should the Magnuson-Stevens Act be amended to require that some of the costs of management be recovered from users of our marine fisheries resources? If so, what principles should govern a cost-recovery program for U.S. fisheries?

Yes, user fees should be implemented. Funds derived from those fees should be allocated directly to fisheries management and enforcement and the fees should be proportional in the case of commercial fishermen to the harvest quantity and the enforcement effort required to assure compliance. License fees should also be required of recreational fishermen.

SOCIAL SCIENCE AND FISHING CONMMUNITY CONCERNS

How could we improve opportunities for collaboration in research and management between fishermen and regulators?

Councils and the NMFS have a number of opportunities to promote collaboration in research and management with fishermen. The Mid–Atlantic Council is implementing a quota set aside program to provide species-specific funding for cooperative research with fishermen. The NMFS is engaged currently in a number of industry initiated research projects. The Act does not have to be amended to allow for such collaborative effort.

What is the significance of National Standard 8 on fishing communities? What, if anything, could be changed in the Magnuson–Stevens Act or its implementation to better protect coastal fishing communities?

National Standard 8 requires that conservation and management measures take into account the importance of fishery resources to fishing communities in order to provide for sustained participation of those communities and, to the extent practicable, minimize adverse economic impacts on such communities consistent with

the conservation requirements of the Act as mandated under National Standard 1. Coastal communities will benefit most by management measures which prevent overfishing of existing stocks and from rebuilding of overfished fish stocks to a biomass which will provide optimum yield.

Some observers have noted that fishermen frequently oppose conservation and management measures because they have little assurance that current sacrifices will be rewarded in the future. How can the Magnuson–Stevens Act be amended to improve the prospects that fishermen's sacrifices will be perceived as worthwhile, and thus improve compliance with regulations?

Ending the moratorium on IFQ and ITQ systems to give the Councils the opportunity, where appropriate, to use such systems for that purpose is one action that can be taken. Providing Councils with other tools for identifying and limiting participation in fisheries in order to achieve a compatible balance between sustainable fish stocks and harvest capacity may also result in improved compliance.

SCIENCE AND DATA NEEDS

The current process for determining data collection and research priorities is driven primarily by line items in the budget and other centralized political decisions. Would this process and management outcomes be improved if managers within each fishery were given greater authority and leeway to determine appropriate data collection and research programs?

I believe that to be so. The Councils should work cooperatively with the NMFS regional offices and science centers to determine data needs, collection requirements and priorities.

Are the data currently available for estimating fish stocks adequate to support the decisions that federal fishery managers must make?

In general, fisheries management decisions are based on the best available data. The data currently available are better in some instances than in others. Effective fisheries management and the appropriate decisions leading to effective management is data intensive. More and better data will allow managers to make better and more effective management decisions.

Responses to Magnuson-Stevens Act Questions
From Congressman Robert Underwood

1. **Other than the North Pacific Council, which had a specific mandate in the SFA to reduce bycatch in the fisheries it manages, have any of the Councils adopted NEW measures intended to reduce bycatch or the mortality of bycatch as they were required to do so by the SFA. If not, why not.**

The NEFMC has adopted larger twine tops in scallop dredges, larger mesh size in trawl nets and hard quotas on groundfish bycatch in the special scallop dredge limited access fishery in New England groundfish closed areas. Also, the NEFMC has adopted larger mesh in the directed monkfish fishery, the directed whiting fishery, and several new closed areas in the Gulf of Maine and Georges Bank cod fisheries.

The MAFMC has adopted gear restrictions at certain times and certain places to remove small mesh gear (less than 4 and ½ inches) from such fisheries, e.g., illex and loligo squid, New England groundfish, that would otherwise have the potential to incidentally take juvenile demersal species, especially juvenile scup. Mesh sizes have also been increased in some fisheries, e.g., summer flounder, so that regulatory discards are avoided.

The SAFMC has addressed bycatch management as follows:

Shrimp FMP –

Penaeid shrimp - Certified bycatch reduction devices (BRDs) are required in all penaeid shrimp trawls in the South Atlantic EEZ. A framework has been established for BRD certification, which specifies BRD certification criteria and testing protocol. The species of fish (weakfish and Spanish mackerel) specified in the criteria represent two groups (pelagic and benthic) that encompass the vast majority of species that would constitute bycatch in the shrimp trawl fishery. Thus the BRD requirement minimizes bycatch to the greatest extent practicable.

Rock shrimp - If the Council receives information that there is more than minimal bycatch and that BRDs are not being used, the Council will move to extend the BRD requirement to the rock shrimp fishery. In addition, trawling for rock shrimp is prohibited in areas where coral resources may be impacted, thus bycatch of coral is minimized and coral habitat is protected.

Red Drum FMP –

All harvest of red drum in the EEZ is prohibited. Since there is no fishery, there is no bycatch of other species.

Snapper Grouper FMP –

Snapper grouper species complex - The Council has prohibited the use of trawl gear and fish traps to harvest snapper grouper species, required black sea bass pots to have escape vents and

panels, and prohibited the use of bottom longlines inside of 50 fathoms. All of these measures effectively reduce bycatch in the fishery. The Council created an experimental closed area to study the benefits of marine reserves and is currently examining the potential for using marine reserves as a management tool for the snapper grouper fishery.

Coastal Migratory Pelagics FMP –

The Council has prohibited the use of drift gill nets in the coastal pelagics fishery and the use of purse seines and run-around gill nets for the overfished groups of mackerels. Where gill nets are used to target coastal migratory species minimum mesh sizes are required.

Golden Crab FMP –

Golden crab - The Council has required that golden crab traps have escape gaps and degradable panels which effectively eliminates regulatory discard bycatch and any bycatch associated with lost traps continuing to fish. Due to the areas golden crab traps are fished there is no other bycatch in the fishery.

Spiny Lobster FMP –

Spiny lobster and slipper lobster - The Council has required that lobster traps have degradable panels which effectively eliminates any bycatch of lobsters associated with lost traps continuing to fish. The Council examined the issue of finfish bycatch in lobster traps, especially traps constructed of wire, and determined from the information available that finfish bycatch is minimal and additional regulations are not warranted.

Coral and Coral Reefs and Live/Hard Bottom Habitat FMP –

Due to the very limited and selective nature of the harvest allowed in this fishery there is no associated bycatch.

The Western Pacific Council completed a framework adjustment to the Pelagics Fishery Management Plan in 1998 to reduce albatross interactions with the Hawaii longline fishery by up to 90%. The success of the measures is founded on the education and cooperation of fishermen through mandatory attendance at annual protected species workshops for longline vessel owners and skippers, and a requirement for fishermen to handle all incidentally caught seabirds in a manner to ensure their long term survival. This action was preempted by a November 2000 Section 7 Biological Opinion by US Fish and Wildlife Service for the short-tailed albatross. The BO mimics these provisions, but mandates mitigation measures to fishermen instead of allowing them to determine which suite of measures works best for their style of fishing. The Council's framework measure, which addresses all seabirds, and not only the short-tailed albatross, has yet to be approved by NMFS. The Council agreed in February 2001 to modify its Pelagics FMP framework adjustment so that it implemented the USFWS measures and sent the revised document to NMFS in March 2001 for review and approval.

The Western Pacific Council is also close to finalizing a Coral Reef Ecosystem Fishery

Management Plan. Several gears are banned for use on reefs in Federal waters due to bycatch concerns. In December 1999 measures were adopted and forwarded to the Secretary to allow only selective gear to harvest precious corals in the Western Pacific EEZ.

2. How difficult has it been for the councils to meet the deadlines required to comply with the new requirements imposed by the SFA? What tools do the Councils need to better comply with the new requirements?

It has been very difficult for the Councils to meet these deadlines. Congress provided huge mandates but insufficient funds, particularly in light of tighter deadlines for submitting additional work. NMFS allocated additional funds from its budget in 1997 for MSA implementation, but the funding for this purpose has not been sufficient. SFA did not create just a "one-time-only" workload. It created long-term, ever growing responsibilities such as rebuilding time frames that required Councils to bring more fisheries under FMP restrictions sooner and essential fish habitat designation and protection measures.

Complying with the SFA has pushed the council's resources to the breaking point. However, it has been the lack of data that has made it most difficult, if not impossible, for the councils to comply with the SFA. Also, NMFS' inability to meet the statutory deadlines for reviewing documents has created major problems as management actions move at a snails pace through the system.

In terms of tools to better comply, "data, data, data". We do not have the necessary bycatch and biological data to conduct accurate stock assessments or sufficient social and economic data to do meaningful Social Impact Assessments or Regulatory Impact Reviews. Having these data would allow Councils to address these requirements of the SFA.

Difficult and painful are understatements in describing the process the Western Pacific Council endured to address the SFA requirements. The primary obstacle in addressing the SFA requirements was NMFS lack of guidance, response and support throughout the amendment development process. NMFS Headquarters was woefully late in providing any guidance needed to prepare the amendments. When guidelines were finally provided, they were done in stages (initial and final) and with last minute changes. This created an environment where the "game rules" were in constant flux.

The level of NMFS technical support in preparing the amendments was not consistent between regions. Some requirements of the SFA are unrealistic in terms of time, staff and funding resources available and the volume and quality of scientific information that is required. In particular, MSY and EFH are extremely difficult to address. These provisions were heavily supported by conservation and environmental NGOs who did not fully understand the inadequacy of using an outdated and discredited concept such as MSY as an index of overfishing, or the quality and volume of information needed to address EFH requirements. As evidence, NMFS is attempting to hold workshops on how best to apply MSY and modifying the EFH provision is one the primary issues discussed in current M-S Act reauthorization hearings.

3. Overly broad identification of essential fish habitat have made it difficult for the

Councils to identify specific areas that need to be protected. What specific measures need to be taken to better aid the Councils in identifying and protecting EFH? What action should Councils be taking for themselves? We realize that this question was discussed at the hearing, but if you would care to elaborate please do so.

The identification of EFH was broad to the appropriate degree. The main problem has been the lack of information available on all areas that might be considered for protection. The designation of Habitat Areas of Particular Concern (HAPC) provides a definite mechanism for the Councils to identify specific areas in need of protection, when the information available to the Councils supports this type of designation. Any area currently identified as EFH can be further designated as an HAPC.

To enable the Councils to better identify and protect EFH, they need to address two parts of the issue. First is the improved identification of EFH. In the Interim Final Rule to implement the EFH portions of the SFA, NMFS identified four levels of information available to be used in the identification of EFH. The higher the level of information, the more refined and definite the EFH identification could be. At this point in time, most Councils are working almost entirely with Level 1 and 2 information. In order to better identify EFH, we would need to have access to Level 3 and 4 information. To get higher levels of information, NMFS and other federal agencies must develop and implement a large scale and comprehensive data collection program that involves basic and directed research on the links between habitat quality and fish production. This type of research and data collection program can only be implemented if significant additional funding is provided to NMFS and other agencies such as the USGS, NURP, and NOS. The second aspect of this is protection. To protect the most EFH, the Councils need to address both fishing and non-fishing related impacts. The Councils may take action to reduce the threat of some types of fishing activity (the Councils cannot control state-based fishing activities), but they need the cooperation of other agencies and jurisdictions to deal with the many non-fishing related activities, which can also adversely affect EFH. It must be recognized, however, that in many cases, we do not know what the effects of various human activities are on EFH, nor what the long-term implications for fishery resource species are from these activities, in fact some may be beneficial to habitat while others may be viewed as detrimental. To understand these impacts, NMFS and others must develop and implement a series of long-term research projects targeting activities believed to reduce the potential for habitats to contribute to fish production. This research program will require additional funding over many years. To manage the effects, not only must fishing-related activities be considered but also non-fishing activities. Currently, NMFS and the Councils can only provide comment (consult) on activities that might adversely affect EFH. This leaves a very large gap in the Councils' ability to protect EFH. For the most part, the problem leading to the appearance of inaction is the lack of information necessary on which to base sound management decisions.

EFH guidelines ask for massive amounts of detailed habitat and life-history/biological data (e.g., current and historic stock size, geographic range, habitat requirements, distribution and characteristics of habitats) for each management unit species (MUS) by life stage (eggs, larvae, juvenile, adult) so as to refine EFH/HAPC designations. The goal is to have as much information as possible in order to have the most accurate designation. However, for most MUS typically little data exist beyond the first level (presence/absence). The final conclusion in

designating EFH boundaries would probably differ very little. Huge volumes of additional data, at great cost, not only would be difficult to collect, analyze and summarize, but would probably change the resultant designation boundaries insignificantly.

The NMFS Guidelines on EFH should be relaxed, and made more practicable. NMFS' data requirements are unrealistic, not cost-effective and produce little benefit. NMFS, or Congress, should consider a more narrow designation of EFH where EFH is confined to habitat areas shown to generate the highest known levels of production, based on observed habitat utilization patterns. However, other information may still be needed to identify sufficient habitat to sustain long-term productivity.

To more specifically identify EFH, the Councils need additional funding for research contracts to obtain detailed information on the following: 1) distribution of early life history stages (eggs and larvae) of MUS by habitat; 2) juvenile habitat (including physical, chemical, and biological features that determine suitable juvenile habitat); 3) food habits (feeding depth, major prey species etc.); 4) habitat-related densities for all MUS life history stages; 5) habitat utilization patterns for different life history stages of MUS; and 6) growth, reproduction and survival rates for MUS within habitats.

3. It appears the Councils have developed few, if any, measures to minimize damage to habitat that is caused by different types of fishing gear as required by the SFA. What information is needed in order to ensure better compliance with this requirement? Why are these plans being approved?

We respectfully disagree. The NEFMC has adopted a number of measures to minimize damage to habitat due to fishing. Restrictions on fishing time (DAS), roller gear size in the inshore Gulf of Maine and year-round and seasonal closures all contribute to minimizing impact on bottom habitat. The New England Council has not, however, been articulate in stating the habitat benefit of measures adopted for multiple reasons. More funding for research would provide better information for EFH management.

The SAFMC has taken the following actions: management measures adopted in Amendment 7 to the Snapper - Grouper FMP have significantly reduced the impact of the fishery on essential habitat by prohibiting use of poisons and explosives, prohibiting use of fish traps and entanglement nets in the EEZ, defining allowable gear, banning use of bottom trawls on live/hard bottom habitat north of Cape Canaveral, Florida, restricting use of bottom longlines to depths greater than 50 fathoms north of St. Lucie Inlet, Florida and prohibiting bottom longline use south of St. Lucie, Inlet, and only for species other than wreckfish, and prohibiting the use of black sea bass pots south of Cape Canaveral, Florida. These gear restrictions have significantly reduced the impact of the fishery on coral and live/hard bottom habitat in the South Atlantic region.
In addition, Amendment 7 defines allowable gear in the directed snapper grouper fishery. Allowable gear does not include net gear; provision is made for allowing possession of sink nets on multi-gear trips only off North Carolina, however, sink nets may not be used to harvest snapper grouper species.

Management measures proposed in Amendment 8 include limiting the number of commercial fishermen which will protect habitat by reducing the quantity of gear used in the fishery. Additional measures proposed in Amendment 9 include further restricting bottom longlines to retention of only deepwater species which will protect habitat by making existing regulations more enforceable. In addition, the requirement that black sea bass pots have escape vents and escape panels with degradable fasteners will reduce catch of undersized fish and ensure that the pot, if lost, will not continue to "ghost" fish.

Measures adopted in the coral plan and shrimp plan have also protected essential snapper grouper habitat including the designation of the Oculina Bank Habitat Area of Particular Concern and the rock shrimp closed area.

In the Golden Crab FMP the Council limited allowable gear to traps, limited trap size, established depth limitations, and limited the number of vessels all of which reduce impacts of fishing gear on habitat.

Under the Coral FMP the Council prohibits taking except under permit. Some limited harvest of octocorals is allowed. The original Coral FMP established a 92 square mile Oculina HAPC within which no bottom tending gear could be used and fishing vessels may not anchor. Under the Comprehensive Habitat Amendment the Oculina HAPC was expanded to measures 60 nautical miles long by about 5 nautical miles wide. Two additional satellite Oculina HAPC areas were established. These actions significantly reduced the impacts of bottom trawls on habitat.

The EFH guidelines direct Councils to describe and minimize, to the extent practicable, adverse effects on habitat caused by fishing. The predominant fishing gear types—hook-and-line, longline, troll, traps—used in the fisheries managed by the Western Pacific Fishery Council cause few fishing-related impacts to the benthic habitat of bottomfish, crustaceans and precious corals. The current management regime prohibits the use of bottom trawls, bottom-set nets, explosives and poisons. The use of non-selective gear to harvest precious corals in the Main Hawaiian Islands (MHI) is prohibited. The proposed Coral Reef Ecosystem FMP includes a list of allowable gear based on minimizing impact to habitat.

Funding is needed to contract research studies to more fully assess fishing activities and fishing gears relative to identifying and evaluating actual and potentially adverse effects on EFH. Contractual work to be considered for EFH and fishing gear impacts include improving GIS maps of the region, impacts of existing fisheries on deep-reef ecosystems, assessment of actual gear selectivity, impact of lobster traps on reef habitat, and determining indicator species to assess ecosystem health.

3. If the Councils are lacking data on bycatch why have they not adopted the "standardized reporting methodologies" to assess the amount and type of bycatch occurring in these fisheries, to provide them with the data they need to reduce bycatch? Obviously existing methodologies must be inadequate, or the data would be available.

In the Northeast, the Councils and NMFS have developed "standardized reporting methodologies" to include the amount and type of bycatch. One of these is the Fishing Vessel

Trip Record provided by the vessel captain for every fishing trip. The problem with this system is that fishermen must form their own subjective conclusions about how much fish was not landed. As a result, it does not provide a consistent, independent determination of bycatch. Additionally the reporting could be biased if the people providing the information choose to skew it to their personal benefit.

Under SFA Amendments the SAFMC specified that bycatch data are needed and adopted the ACCSP program as the mechanism for obtaining these data. The SAFMC's snapper grouper logbook used to record bycatch but this was eliminated by NMFS. The Council has been actively campaigning to have this restored on the logbook, and it now appears that NMFS is now currently finalizing a supplemental bycatch logbook. The Council has requested observer coverage through NMFS but it has not had sufficient funding to honor our request.

If Congress were to fund appropriate levels of observer coverage in all fisheries in which substantive levels of bycatch are believed to occur, then this data deficiency would be no more. Importantly, this cost should not be borne by the fishermen. If more data is required to manage bycatch, then there needs to be additional appropriated funding of regional efforts to monitor bycatch levels since society at large has expressed the need for bycatch reductions. With more reliable data, Councils can then determine how to better manage bycatch levels.

Guidance from NMFS indicated that creel surveys, logbooks and observers could all be regarded as "standardized reporting methodologies." Hence, we do not accept the premise in the question that it is the methodologies that are inadequate. What is inadequate is a fully integrated and operating standardized bycatch data base management system. As a minimum, such a system would include bycatch data collection, data processing, and data storage and handling features accessible to all fishery scientists, managers and affected stakeholders.

3. **For those fisheries where bycatch has been reported to have been reduced, is it the case that fishermen are actually minimizing the amount of non-target species that they catch and reducing the mortality of those they do catch, or are they simply retaining the same level of bycatch and implementing some sort of full utilization system, such as turning it into fish meal.**

Through larger mesh sizes, roller gear limitations, and closed areas, the New England and Mid-Atlantic Councils are minimizing the amount of non-target species caught, and reducing the discard mortality of target species as well. Leaving the fish "on the bottom" (large mesh and roller gear) and preventing incidental contact (closed areas) minimizes both retention of bycatch and incentives to misreport bycatch. In Atlantic Coast Council-managed fisheries, there is no production of fishmeal.

We do not have any data with which to evaluate the reduction in bycatch from devices like the BRDs in the South Atlantic shrimp fishery. It is the South Atlantic Council's opinion that these devices are in fact reducing the bycatch by 30-40%. There is no effort underway to convert bycatch into fish meal in the SAFMC's area.

The main bycatch issue in Western Pacific Regional fisheries is with endangered and protected species caught in longline fisheries. There is no retention and landing for fish meal. Most effort

is put into ensuring the long term survival of endangered and protected species caught by longline vessels. Bycatch in other Council fisheries is minimal and the Council determined that there are no incentives to make fishermen reduce these further.

3. The Magnuson Stevens Act, as do most laws, requires that management decisions be made using the best scientific information available. Yet, fishing industry has frequently expressed frustration that this means many fisheries are managed with data that is outdated or inadequate, triggering restrictions they believe may be unnecessary. At the same time, some in the environmental community believe that inadequate data results in too little protection for many fish stocks. What can be done to improve the fisheries data we use to make management decisions? More importantly, what can be done to restore confidence in these biological assessments?

Managers need more timely and accurate information so that it corresponds to the fishermen's understanding and perspective of current resource conditions. There are, however, many different types of data needed and more detailed recommendations should be developed through a process specifically designed to address this question.

The best way to build confidence in biological assessments is through cooperative assessments and research to ensure that scientists and fishermen are at least evaluating the same information. Cooperative assessments and research, when correctly conducted, can also build understanding and trust between these groups.

There is nothing wrong with requiring the Councils to use the best available data. What is wrong is that the data are not getting better over time. Limited resources and an unwillingness to reprogram have prevented the NMFS from providing the necessary data. Specific steps to improve this situation are as follows:

(a) Fully implement the FIS/VRS outlined in the 1999 report to Congress responding to Section 401(a)(5) of the SFA. This would cost $22 million for the Atlantic and a total of $52 million nationwide.

(b) Provide the resources necessary for NMFS to produce annual SAFE reports.

(c) Provide a source of programmatic funding to the Councils to address short-term needs.

Having the necessary data and having annual SAFE reports (including assessments that are open to the public) will improve the public's confidence in biological assessments. Other factors that impinge directly on the answer to this question include the following perspectives:

(a) System is overburdened to supply needed data –

Fisheries science is the study of the dynamics of populations, and requires a huge volume of data to provide meaningful results. The SFA massively upped the ante in terms of data requirements because of EFH requirements and the shift to a MSY/biomass based overfishing definition. This overloaded an already overloaded research agency. Added to this mix of demands is an aggressive anti-fishing agenda driven by the environmental community constantly bringing law

suits with the concomitant need for NMFS scientists to be reacting to the latest legal challenge or crisis. Lastly, it appears that agency management is easily bullied by the environmental lobby and makes decisions apparently based on political expediency not science.

(a) Massaging the results –

Having the stock assessment responsibility and management authority in the same agency also involves risks. NMFS political leadership may effectively put pressure on scientists or technical staff to arrive at conclusions not supported by the "best available science." This alienates and marginalizes further the scientific staff within the agency. In attempts to reduce this conflict of interest, the Councils have petitioned on many occasions for stock assessments to be conducted or reviewed by an independent panel of experts.

(a) Whose precautionary approach?

The precautionary approach which is suppose to guide fishery management and avoid management paralysis in data-poor situations is perceived differently by fishery biologists and environmentalists. The fisheries science perspective of the precautionary approach is to fish the stock with some cautionary limit with the fishery performance indicators feeding back into the management process. The environmentalist perspective of the precautionary approach is that no fishing should proceed until enough research has been done to determine what the effects of fishing will be. Clearly this is a conundrum.

(a) Magnuson- Stevens Act sidelined –

The environmental community have realized that the Magnuson-Stevens Act and Council process can be bypassed and marginalized through the use of Executive Orders, Endangered Species Act, Marine Mammal Protection Act and National Environmental Policy Act. The Department of the Interior now wants to extend the Migratory Bird Treaty Act (MBTA) which would give the environmental community another route to bypass Magnuson. Once these acts are used to bring law suits the "best available science" becomes irrelevant particularly under ESA where jeopardy opinions are a subjective judgement call and the cumulative impacts on listed species beyond the USA are irrelevant as the purpose of the act is to reduce impacts of federal action and not to effect recovery. This trend also removes the regional aspect and public input of fishery management, a trend the Councils find extremely disconcerting. The Councils have and will continue to work with those stake holders most knowledgeable with the issues, but will fight to keep fishery management out of the courts.

(a) Unlevel playing field –

The environmental community uses the democratic process, e.g., FOIA, in its litigation with NMFS to access all the data and documents it wishes, and then uses them selectively to spin its own stories. In the courts, this has led to fisheries being shut down as a direct consequence of the amount and level of detail cooperatively gained from NMFS, i.e., the agency provides the environmental community the very information it needs (at little or no cost) to thwart NMFS'

management actions based on Council recommendations. This is the source of much industry frustration. Also, the ESA directly inhibits fishermen participation in data gathering by not allowing them to handle protected species, place tags, collect specimens or return dead individuals to port for analysis. Yet cases are filed under this legislation based on the premise that NMFS should "do no harm" (the precautionary principle) as it does not have enough data or information to make an informed decision. It's a Catch 22 dilemma and by combining resource ignorance with the precautionary approach national environmental organizations are destroying the economy of small fishing communities, one-by-one, throughout coastal America.

[Response to questions submitted for the record by Mr. LeBlanc follows:]

Questions for Justin LeBlanc
Subcommittee on Fisheries Conservation, Wildlife and Oceans
Magnuson Reauthorization Hearing

- *In the rebuilding of overfished stocks, some have argued that unreasonable rebuilding targets have been set by either the agency or the councils. How are these rebuilding targets established? If the complaint is correct that unreasonable targets are being set, is this a problem with the Act or with the implementing guidance from the agency?*

Rebuilding targets are established according to a set of standards established by legislation that have been further interpreted by the National Marine Fisheries Service. Because the two (legislation and regulation) are securely linked, solving problems will involve changes in both - it is not an either / or situation.
A diverse coalition of commercial and recreational groups provided the Congress with suggestions on changing the overfishing requirements last year. These changes ere designed to address the worst cases of legal obfuscation while maintaining a commitment to rebuild truly overfished stocks. A copy of that proposal is attached.

- *In its April 2000 report to Congress, the General Accounting Office noted that although NMFS reported that is did not know the status of 75 percent of the species (and 30 percent of the stocks) that they manage, the 25 percent that it did know the status of, represented about 90 percent of the total weight or volume of all species in U.S. waters. Do you feel this is an accurate statement? Could you comment further on this?*

Yes, the NMFS does know the status of approximately 90% of the commercially valuable fisheries by weight or volume. Do suggest that the agency knows nothing about 75% of the fish stocks as some failure of the agency is a misportrayal of the situation. In a world of limited financial resources, it is appropriate that the agency focus its scientific research on commercially important fisheries. If 75% of the stocks under NMFS management only account for 10% of the landings, spending millions of dollars on research on these stocks would not be a good use of financial resources.

- *Some members of Congress have argued that the identification of EFH by the Councils was far too broad and too sweeping in its implementation. The agency is now urging councils to identify Habitat Areas of Particular Concern (HAPC) which are more discrete areas. Isn't this what Congress actually wanted NMFS to do in the first place? Do we need to create a new designation to accomplish what was originally intended?*

Yes, as a congressional staffer during the consideration of the Sustainable Fisheries Act in 1996, I can say with confidence that I believe Congress wanted EFH to be considered by the NMFS in a manner currently being addressed by the HACP concept. During this reauthorization, Congress should redefine EFH so that the

NMFS implements the provisions to apply only to what is now called HAPC or limit the application of regulatory authority to HAPCs instead of EFH.

- *Last Congress, this Subcommittee held a hearing on Essential Fish Habitat issues. At this time, one of the concerns raised by the agency was that there was not adequate funding available to fund research into habitat issues. If funding is scarce, does it not make sense to look first at the habitat needs of those commercially important species?*

Yes, as with the status of fish stocks issue, limited financial resources should be focused on commercially-important species in order to derive the most benefit to the general public from the use of federal dollars.

- *One area of concern that has been identified by a number of reviewers of Federal fisheries management is that of the adequacy of scientific data on which management decisions are made. A second concern is that the regulated community does not have confidence in the scientific information generated by the agency. How can we get better data and get better buy-in by the regulated communities?*

As I stated in my written testimony, I believe there are three steps that would dramatically improve the quality of scientific data upon which fishery management decisions are made and the confidence of the regulated community:

1. Initiate cooperative research projects of meaningful scope and scale
2. Require truly independent peer review of NMFS stock assessments
3. Incorporate the knowledge and understanding of fishermen into the management process, that is, consider anectodal information provided by fishermen and processors.

- *We have seen a number of cooperative research survey initiatives that were cosponsored by industry in the last few years. How does the agency use the information from these cooperative surveys, in addition to their own survey information, to determine stock sizes and total allowable catch levels?*

The cooperative research efforts are relatively new and we are still evaluating the NMFS response to the data generated. In the case of George's Bank scallops, the agency initially resisted considering the data generated by outside sources by eventually took it into consideration. With regard to scup and monkfish cooperative research, the agency appears to be incorporating the data generated. However, with regard to summer flounder, the agency appears to be resisting the data generated by industry research. One means of getting better cooperation over cooperative research would be to require the agency to engage it, ensuring that they are participants from the very beginning and cannot later raise objections to sampling protocols, sampling stations, or other aspects of the research.

- *Are there other sources of funds that should be considered to gather better data? Have any of the environmental groups funded this type of research?*

None of the environmental groups have funded basis fisheries research to my knowledge. Two areas of potential funding for cooperative research are the Saltonstall-Kennedy (S-K) grant program and the Capital Construction Fund (CCF). The American Fisheries Promotion Act (AFPA) of 1980 authorized the S-K grant program. 30 percent of the duties imposed on imported "fishery" products are transferred to the National Marine Fisheries Service from the Department of Agriculture. For Fiscal Year 2001, this transfer is estimated at $69.9 million. Of this amount, only $1.9 million will be used for S-K grants. The remainder of the funds are used to offset operational, research, and facilities expenses of the National Marine Fisheries Service. Even if 1/3 of the monies collected were committed to the S-K program, considerably greater cooperative research could be conducted. In addition, many vessel owners are sitting on millions of dollars in CCF funds. Allowing these funds to be used for industry-funded cooperative research without a tax penalty could also prove beneficial.

- *The Magnuson Act requires Fishery Management Plans to "...minimize, to the extent practicable, adverse effects on such habitat caused by fishing...". Since the Councils have identified almost the entire EEZ as EFH, this will mean that the agency must collect data on gear impacts for the entire EEZ (approximately 3.4 million square miles). Should the Act be amended to apply the minimization requirement only to the HAPC areas?*

Absolutely. Congress did not intend the requirement to minimize fishing impacts on habitat to apply to the entire EEZ. HAPCs are much more consistent with the scale and scope of the habitat protections Congress was seeking in 1996.

- *The Act currently has been interpreted to prohibit the gathering of economic data from processors. Why was this restriction put in place and should this issue be re-examined? Are there ways of gathering this proprietary data and insuring its confidentiality?*

The Act specifies that economic data cannot be collected from processors. This requirement was originally included to prevent a federal agency from collecting a wide variety of proprietary information of the sort collected (and maintained under stricter standards of confidentiality) by the Internal Revenue Service. Given the highly competitive nature of seafood processing and the small profit margins typically available, release of such data could have significant adverse economic effects on individual processing companies.

Since the time that the original sweeping prohibition was put in effect, there has been recognition that some more general economic information would be useful to fisheries managers, especially in light of the requirement to consider community impacts of management measures. However, the general social and economic data needed does not include proprietary business data.

Our preliminary suggestion would be to delete "economic data" in the parenthetical in section 303(b)(7) and substitute "proprietary business data". This should allow managers to collect gross figures on such things as employment (number and type of personnel, wages) and costs, but would preclude individual salaries and specific sales figures.

- *Witnesses have recommended that the Councils be authorized to charge fees for observer programs. Have any Councils developed observer programs that are hindered by this lack of authority? Should the Councils be required to submit specific requests to Congress to gain this authority on a case-by-case basis?*

I am not aware of any cases where development of an observer program was hindered by this lack of authority. Councils have mandated observer coverage in some fisheries, leaving it up to the vessel owner to determine how a qualified observer would be obtained. In other fisheries (Pacific groundfish, for example), development of an observer program has been stymied because vessels cannot afford observers and - until the current fiscal year - no funding was available to provide them.

We do believe it is important that observer costs be shared equitably and that a rational program be put in place before observers are required. For this reason, we recommended language in the last Congress to accomplish these objectives. A copy of the language is attached. If adequate safeguards are attached to observer programs, there should be no need to revisit Congress every time a program is suggested.

- *Several of the witnesses have noted that the use of MSY in problematic. Should Congress look at this term and, if so, what target should we use in terms of rebuilding plans?*

The problem is not with the use of MSY per se. Rather, it is a problem with our conception of MSY as a static level that does not change. Our definition of MSY needs to be amended to clarify that as environmental conditions change, so to does MSY. Our management system must be able to accept that an abundance level present 10-20 years may not be achievable today because of climatic changes, marine pollution, coastal development, and other factors that change the carrying capacity of the marine environment for a certain fishery. MSY must be adaptable so that our management system is not shooting for unrealistic and unattainable targets under rebuilding plans for overfished fisheries, or so it can avoid defining as overfished a fishery that is not.

Questions Concerning Magnuson Act Reauthorization
April 4, 2001

<u>*General Questions*</u>

1. *Many factors have been identified as potential problems in U.S. fisheries: over-fishing, overcapitalization, insufficient data, inappropriate management structures, and ecosystem impacts of fishing. Which of these do you believe is the most pressing problem to be addressed?*

Insufficient data. While these are all real issues that need to be addressed, none of them can be effectively addressed with the current data limitations.

2. *Can you give examples of previously over-exploited federally-managed species that have successfully recovered over the past 10 years? What species would you expect to add to the success list in 5-10 years? Are there any commonalities that might enhance our chances of success with other over-exploited species? What have been the major barriers to success?*

Unfortunately, the annual NMFS Status of Fisheries of the United States Report to Congress does not report on rebuilt or rebuilding U.S. fisheries although NMFS should be able to definitively answer this question. Perhaps Congress should require NMFS to include such information in future reports. However, we do know that George's Bank scallops were successfully rebuilt as was Atlantic Striped Bass. In addition, several species in the New England groundfish fishery are showing promising signs of recovery. I believe the majority of stocks classified as overfished can be "restored" within 5-10 years, particularly if we amend the overfishing and rebuilding programs as proposed by the Seafood Coalition to set realistic rebuilding targets that take environmental variability into account.

Some commonalities among rebuilt and rebuilding fisheries is quality scientific data. Whether provided by the agency or through cooperative research, fisheries with successful rebuilding plans generally have a solid scientific database underlying the Fishery Management Plan.

A lack of sound science and a lack of stakeholder confidence in such data are, I think, the most significant hurdles to successful rebuildings. In addition, I think unrealistic rebuilding goals such as is the case in scup and summer flounder result in defeats before there is a chance for success.

3. *What are the pros and cons of the "over-fishing" and "essential fish habitat" sections of the Sustainable Fisheries Act of 1996? What are the administrative burdens and benefits to Council staff? Can the Councils meet the objectives they are charged with under these sections? Would it be useful to clarify the concept of essential fishing habitat, and to provide a clearer mechanism for evaluating the costs and benefits?*

The 1996 SFA concepts of overfishing and EFH are sound. It is the implementation of these concepts by NMFS that has been flawed. It is clearly in the best interest of the commercial fish and seafood industry to prevent overfishing, rebuild overfished stocks, and protect EFH from lasting damage. However, what exactly constitutes an

overfished stock, a rebuilt stock, and EFH have been poorly defined by the NMFS such that fisheries that are of relatively low abundance as a consequence of things other than fishing are labeled as overfished, rebuilding goals are set ridiculously high, and the EFH provisions apply to the entire EEZ.

While the Councils can better answer parts of this question. There is no question that we overburdened the Council system in 1996 with requirements that they are only just now getting on top of. The Councils need considerably more funding to meet their current statutory obligations, let alone any additional requirements.

As I have answered in other questions, the concept of EFH should be narrowed by Congress to be more consistent with the NMFS concept of HAPCs.

Yes, the Councils should be equipped and impowered to more cost-benefit analysis of management options.

4. *Does the time required to promulgate federal fishery regulations hinder effective management?*

Yes. While it is imperative to provide adequate public notice and opportunity for public comment, the bureaucracy of federal regulations can be burdensome and untimely.

Management Options

1. *In your opinion, what is the primary benefit and the primary drawback of the existing system of Regional Fishery Management Councils? What changes might lead to more successful management?*

Primary Benefit: Management at the local level by people who know the fishery
Primary Drawback: Allocation battles disguised as conservation issues.

Two issues that could dramatically improve the fishery management council process would be basic fisheries science training for all Council members and a requirement for equitable representation on the Council by all stakeholders, commercial fishermen, recreational fishermen, and primary processors. If conservation community representatives are going to be placed on the Councils than representatives of the consuming public should also be placed on the Councils.

2. *How might the Magnuson-Stevens Act be amended to address the problem of frequent industry opposition to strong conservation and management measures? Should fishermen be given more or less influence over the management measures adopted?*

1. Cooperative research programs that generate stakeholder confidence in the scientific data.

2. Objective presentation of science. There is no scientifically-correct fishing mortality rate. Each rate has a differing probability of overfishing the resource or rebuilding the resource within a set time frame. Scientists should present these options, not choose one and try to claim it is the scientific choice.
3. Fishermen should be given more influence over the management measures adopted. Fisheries should be managed by their participants at a sub-Council level. These individuals have a vested interest in sustainable management, or at least, they should. If they make poor choices, they are the ones who suffer.

3. *Should the blanket moratorium on individual fishing quota programs (IFQs or ITQs) be lifted? If not, what is your main reason for opposing these programs under all circumstances? If yes, should there be nationwide standards for quota programs?*

The National Fisheries Institute believes the current moratorium on IFQs should be continued until Congress amends the MSFCMA to require equitable treatment for the primary processing community in any IFQ program. I refer you to the excellent testimony of NFI members Joe Plesha, Trident Seafoods, and Don Giles, Icicle Seafoods, before the Senate Oceans and Fisheries Subcommittee May 2, 2001. Both gentlemen articulated the impacts IFQs have on the primary processing community. The NFI believes there should be national standards that all IFQ programs must meet, including the equitable treatment of primary processors. In the absence of national standards, the Regional Fishery Management Councils will fail to address key issues such as primary processor impacts.

4. *Current management practices address species independently, attempting to achieve a maximum sustainable yield for each species. Is this realistic? Can all species be exploited at maximum sustainable yield levels simultaneously?*

In depends on how you define MSY. As currently conceived, no, all species cannot be simultaneously maintained at MSY, particularly when there are direct predator-prey or competitive relationships. However, a more adaptive application of the concept of MSY that takes into consideration changes in the marine environment could possibly allow you to more effectively coordinate the management of a complex of species, or multiple interacting fisheries.

5. *Moves towards more decentralized fisheries management in the Maine lobster fisheries, and in other fisheries here and abroad, have shown some successes in terms of conservation and social and economic outcomes. Is more decentralization of management desirable in some of our fisheries? If so, should the Magnuson-Stevens Act be amended to encourage experiments with decentralized approaches to fisheries management?*

Yes, in some fisheries further decentralization of conservation and management could prove beneficial. The trick is to empower the stakeholders affected by the

conservation and management measures to make decisions in their long-term best interests.

6. *Are there changes needed to influence how Councils meet NEPA requirements in developing and amending fishery management plans?*

Every amendment to a FMP need not be subject to NEPA requirements. Such actions overwhelm the fishery conservation and management system with bureaucracy to little benefit. Perhaps only the basic FMP Frameworks should be subject to NEPA requirements with the environmental analyses required by MSFCMA being deemed sufficient for plan amendments or adjustments to the FMP framework.

7. *Would it be better to assign a single council staff person to be responsible for the entire process of data collection, scientific assessment, and provision of management advice for each fishery?*

This is a decision that is best left up to individual Councils, based on their data needs, budgets, personnel levels, etc. For example, the Pacific Fishery Mgt Council roughly divides stuff up among staff so that you have a groundfish person, a salmon person, a habitat person, a coastal pelagics person, and an economist. Some of these individuals do double (or more!) duty with other fisheries. Whether this system would work for any other Council is not clear. However, having the Congress manage Council staff structure is really seems to be unnecessary micro-management.

<u>*Enforcement and Compliance*</u>

1. *The vast area of our EEZ, the hundreds of fishing ports, and tens of thousands of fishing craft make monitoring, control, and surveillance extremely difficult. How might the Magnuson-Stevens Act be amended to encourage the use of alternative methods for strengthening compliance with regulations? Should non-governmental bodies be allowed to supplement existing enforcement resources?*

The single greatest step to improving compliance with fishery conservation and management measures is stakeholder buy-in. To the extent that fishermen believe the regulations are justified by the science and will serve their long-term best interests, they will tend to comply with the regulations. The use of new technologies such as remote observers and Vessel Monitoring Systems should be considered on a fishery by fishery basis. In no way should non-governmental bodies whose objectives may or may not be consistent with the federal government's or the purposes and policies of the MSFCMA be allowed to supplement existing enforcement resources. Such an approach all too quickly becomes one person's word against another's. However, some fisheries have had success self-reporting and self-policing such as the Gulf of Alaska catcher-processor fleet's Sea-State program which uses voluntary reporting of Bycatch rates to avoid hitting Bycatch caps.

2. *The U.S. spends $660 million annually on fisheries management, mostly for enforcement of the Magnuson-Stevens Act. Other fishing nations, for example, Australia, Canada, and New Zealand, have implemented user charges to recover the costs of fishery management services. Should the Magnuson-Stevens Act be amended to require that some of the costs of management be recovered from users of our marine fisheries resources? If so, what principles should govern a cost-recovery program for U.S. fisheries?*

The fisheries of the United States are a public resource, managed by the federal government for the public benefit. Commercial fishermen provide a service to the public (albeit at a profit), providing safe and wholesome seafood to consumers who do not wish to catch it themselves. As a public resource managed for the public benefit, the costs of management should be borne by the beneficiaries, the general public through taxes.

In the case of Individual Fishing Quotas, where the degree of control by individual fishing entities has increased, user fees to cover the costs of the IFQ system may be appropriate. Any user fees collected in ay fishery must be returned to the fishery from which they are collected and not used to subsidize the management costs of another fishery.

Social Science and Fishing Community Concerns

1. *How could we improve opportunities for collaboration in research and management between fishermen and regulators?*

Provide funding for cooperative research through direct appropriations, the Saltonstall-Kennedy Grants Program, of Capital Construction Funds. Direct the NMFS to make cooperative research a priority.

2. *What is the significance of National Standard 8, on fishing communities? What, if anything, could be changed in the Magnuson-Stevens Act, or its implications, to better protect coastal fishing communities?*

National Standard #8 is a critical National Standard. The agency's compliance with it has been hindered by inadequate funding. Provide funding for the NMFS to conduct adequate social and economic impact analyses. Prioritize compliance with the Regulatory Flexibility Act by the NMFS and establish a culture in the agency that seeks to achieve conservation and management measures with the least negative economic and social impacts.

3. *Some observers have noted that fishermen frequently oppose conservation and management measures because they have little assurance that current sacrifices will be rewarded in the future. How can the Magnuson-Stevens Act be amended to improve the prospects that fishermen's sacrifices will be perceived as worthwhile, and thus improve compliance with regulations?*

Empower stakeholders:

A. Create confidence in the science through cooperative research, independent peer review, and the consideration of anecdotal information.
B. Decentralize management to allow fishermen in the fishery to choose management options
C. Create ownership in the fishery through limited access programs, where appropriate.

Science and Data Needs

1. *The current process for determining data collection and research priorities is driven primarily by line items in the budget and other centralized political decisions. Would this process, and management outcomes, be improved if managers within each fishery were given greater authority and leeway to determine appropriate data collection and research programs?*

Yes, but you would still face the budget problem. For example, in recent years the level of funding for West Coast salmon has been close to $100 million each year. There is perhaps a total of $10 million dedicated to Pacific groundfish, a fishery under the same Council jurisdiction. The difference is funding for these activities is driven by the macro-level budgeting process of the Administration and Capitol Hill. Even if the Council or NMFS wanted to spend more time and money on groundfish, they couldn't as long as the Office of Management and Budget and the Appropriations Committee continue to decide funding priorities, something unlikely to change.

2. *Are the data currently available for estimating fish stocks adequate to support the decisions that federal fishery managers must make?*

It depends on the fishery. In some fisheries we have annual survey data going back decades (although we still lack stakeholder confidence in this data because it differs from their experiences on the water). In other fisheries, such as Pacific groundfish, we only sample every third year so a thirty-year old fishery is managed with only ten data points. In addition, some survey work by the NMFS has been inadequate in terms of range; monkfish and deep sea red crab, for example. We could dramatically improve fishery conservation and management in the U.S. and stakeholder confidence in the data by funding cooperative research efforts across all fisheries in the United States.

Comments on the Testimony of James H. Gilford, Chairman of the Mid-Atlantic Fishery Management Council on Council Chairmen's Recommendations

The testimony of Chairman Gilford outlined 16 issues and 4 additional issues upon which the Council Chairmen took positions. I will attempt to address each one independently:

1. Redefine Overfishing

I support the Council Chairmen's testimony and agree that we need to rework our definitions of overfishing and MSY. The industry package of amendments (attached) attempts to correct the problems with the current definition and its inability to address changes in the marine environment.

2. Council Member Compensation

The NFI does not oppose this proposal.

3. Receipt of Funds from any State or Federal Government Organization

The NFI supports the Council Chairmen's proposal.

4. Review of Research Proposals

The NFI supports this proposal for the purposes of review of research proposals. However, the selection and approval of projects should be done in a public setting.

5. Essential Fish Habitat

The NFI agrees that EFH should be more narrowly defined and has proposed that the concept of Habitat Areas of Particular Concern should be the focus of our regulatory efforts.

6. Regulating Non-Fishing Activities of Vessels

The NFI supports this proposal.

7. Collection of Economic Data

The NFI partially supports this proposal. The Act specifies that economic data cannot be collected from processors. This requirement was originally included to prevent a federal agency from collecting a wide variety of proprietary information of the sort collected (and maintained under stricter standards of confidentiality) by the Internal Revenue Service. Given the highly competitive nature of seafood processing and the small profit margins typically available, release of such data could have significant adverse economic effects on individual processing companies.

Since the time that the original sweeping prohibition was put in effect, there has been recognition that some more general economic information would be useful to fisheries managers, especially in light of the requirement to consider community impacts of management measures. However, the general social and economic data needed does not include proprietary business data.
Our preliminary suggestion would be to delete "economic data" in the parenthetical in section 303(b)(7) and substitute "proprietary business data". This should allow managers to collect gross figures on such things as employment (number and type of personnel, wages) and costs, but would preclude individual salaries and specific sales figures.

8. Rescinding the IFQ Moratorium

The NFI does not support rescinding the moratorium on IFQs until Congress requires that 50% of the total economic value created by quota shares is allocated to the primary processing community in the fishery.

9. Establishment of Fees

The NFI believes fees, if established, must return to the fishery from which they were collected. In addition, the basic costs of fishery conservation and management serve the public interest and should, therefore, be covered by public resources.

10. FMP Review Program

The NFI supports this proposal.

11. Coordinated Review and Approval of Plans and their Amendments and Regulations

The NFI supports this proposal.

12. Rebuilding Periods

The NFI supports this proposal.

13. NMFS Regional Administrator Emergency or Interim Action Vote

The NFI supports this proposal.

14. Enforcement

The NFI supports this proposal.

15. Observer Program

While the NFI does not oppose the establishment of fees to cover the costs of observer programs, such costs should be borne by all the beneficiaries of the observer program, not simply the vessels, fleet, gear type, or fishery that carries the observers. In addition, many fisheries simply cannot afford to fund observers. In such cases, federal funding may be necessary.

16. Confidentiality of Information

The NFI supports this proposal.

17. Other Issues

A. Bycatch Issues

The NFI agrees that both Atlantic and Pacific HMS should be treated similarly. The NFI does not currently have a position on whether tag and release fish in these fisheries should be considered Bycatch. There is certainly a hooking mortality associated with these activities. Tagged and released fish do not experience a 100% survival rate. The mortalities of these fish should most certainly be factored into the FMPs and recreational quotas for the species.

B. Add New York to the New England Council

The NFI has no position on this issue.

C. Eliminate Newspaper notification of meetings

The NFI supports this provision so long as adequate notifications of meetings through other formats are ensured.

D. Direct Transfer of Council Funds

The NFI generally supports this proposal.

Magnuson-Stevens Fishery Conservation and Management Act

This proposed package of amendments addresses the following issues:

Best Scientific Information Available

Currently, the M-SFCMA requires FMPs to be based on the "best scientific information available". Industry is concerned that this requirement has resulted in the implementation of FMPs based on weak, poor, insufficient, and non-peer reviewed scientific information because it is the only information "available", even when such information is contradictory to the experiences and information from commercial fishermen and processors. The proposal is to add a more stringent definition of "best scientific information available" that would require such information to be peer-reviewed and to allow the consideration of anecdotal information gathered from the harvesting and processing of fish.

Peer Review

This provision would require each fishery management council to establish a peer review committee to evaluate all stock assessments prepare for fisheries under the council's jurisdiction. Such peer review committees will be required to have independent participants as well as members of the Science and Statistical Committee and Advisory Panel.

Essential Fish Habitat

The implementation of the Essential Fish Habitat (EFH) provisions by the NMFS has been flawed. Unfortunately, the entire EEZ as been defined as EFH instead of more discrete units of habitat as originally conceived. Under the M-SFCMA, the Councils have the authority to regulate the impacts of fishing activity on EFH while only having the ability to provide comment on other potential negative impacts on EFH by other commercial activities such as upland activities (mining, logging, coastal development) or other marine activities (channel dredging, telecommunications cables). Recognizing the problems with such a broad conception of EFH, the NMFS has developed the concept of "Habitat Areas of Particular Concern" (HAPCs) that focus on more discrete units of fish habitat and are more consistent with congressional intent behind the EFH provisions. This proposal seeks to narrow the Councils ability to regulate the impacts of fishing activity on habitat to HAPCs instead of EFH (the whole EEZ).

Overfishing and Rebuilding Programs

Currently, any stock of fish that is of low abundance relative to some historic high is classified as an overfished stock, whether this low abundance is the result of fishing activity or changes in the marine environment unrelated to fishing. Since these fisheries are classified as overfished, the Councils are required to implement rebuilding plans to once again attain the historic high level of abundance within ten years, regardless of

whether or not the current state of the marine environment can sustain such an abundance level (considered the "carrying capacity" of the environment for a stock of fish). The apparent driving force behind this is a misconception of the "Maximum Sustainable Yield" (MSY) of a fishery as a static concept that does not change.

This proposal seeks to redefine the concept of MSY to take into consideration changes in the carrying capacity of the marine environment. Under such a definition, the classification of a fishery as overfished and the attendant requirements for a rebuilding program would only occur in the case of fishing activity reducing the abundance level beneath MSY. Natural environmental fluctuations would be taken into account within the management structure.

In addition, the Act currently requires rebuilding of fish stocks to MSY to occur within ten years. This number was arbitrarily selected and fails to adequately take into consideration the biology of the fish stock or the economic impact on fishing communities. The proposal seeks to drop the ten-year requirement and instead require rebuilding programs to be "as short as possible" based on the "best scientific information available".

Fish as Food Policy

This proposal seeks to amend the Purposes, Findings, and Policy sections of the MSFCMA to recognize the important role of commercial fishing to national and global food security and in the provision of a healthy food source for consumers.

Observers

While observer programs can play a critical role in the collection of important fishery data, they are often designed without clear goals and objectives. This proposal would require councils to develop goals and objectives for observer programs and ensure that all sectors of the fishery are treated equitably.

Cumulative Impacts

This proposal seeks to require the NMFS to take into consideration the economic and social impacts of fisheries management decisions in a cumulative fashion. Under existing law, the NMFS can assess the impacts of each fishery management decision in isolation, thereby avoiding any substantial negative economic impact on fishing activity. However, taken together, these separate actions can have dramatic negative impacts on commercial fishing operations and fishing communities. This proposal would require NMFS to take these cumulative impacts into consideration when developing fishery regulations.

Optimum Yield

The M-SFCMA requires FMPs to achieve the "optimum yield" (OY) from each fishery, broadly conceived as the "net economic benefit to the Nation". The traditional definition of OY was based on the MSY as 'modified' by relevant biological, social, or economic information. The 1996 SFA changed this definition by imposing an "MSY-cap" on OY. That is, OY cannot exceed MSY, but may only be lowered by relevant biological, social, or economic information. This proposal seeks to remove this cap and allow the Councils to take into account short term fluctuations in stock size and fishery performance without being hamstrung by the overfishing provisions. In the real world, MSY is a set value usually expressed as a proxy based on having a certain percentage of biomass unfished. Because stocks are not assessed annually, you can wind up "underfishing" for a couple of years between assessments. Removing the cap gives the Councils some flexibility in adjusting harvest, but they will still be constrained by the overfishing / rebuilding requirements, which are keyed to MSY.

Impacts on Fishing Activity

Currently, the M-SFCMA provides the NMFS and Councils the ability to comment on potential negative impacts on EFH by other federal agencies that may be permitting activities such as mining, logging, coastal development, dredging, and laying of cable. However, the NMFS and Councils have no ability to comment when these activities may negatively impact commercial fishing operations, as opposed to just EFH. This proposal seeks to allow the NMFS and the Councils to comment on activities that may negatively impact commercial fishing operations, whether or not such activities will negatively impact EFH.

Questions for the Record from The Honorable Robert Underwood

LeBlanc

1) For those fisheries where bycatch has been reported to have been reduced, is it the case that fishermen are actually minimizing the amount of non-target species that they catch, and reducing the mortality of those they do catch, or are they simply retaining the same levels of bycatch and implementing some sort of full utilization system, such as turning it into fish meal?

2) In your testimony you suggest fishery managers should combine the mortality rate that would produce overfishing, provided by scientists, with social and economic concerns and strike a balance. Are you suggesting that overfishing should be allowed to occur for social and economic benefits? Wouldn't these benefits be short term, and result in a much worse economic situation for fishermen in the end when the fishery collapses and has to be shut down or severely curtailed?

3) In your testimony you say that NMFS' assessments method are simply not able to get an accurate estimate of how many fish are out there. Does anyone really have an accurate estimate? Is there better, peer-reviewed science being done that needs to be factored in to NMFS assessments? And given that environmental variability is just that, variable, how can it be factored in on a year-to-year basis? How often would this variability be calculated and included in stock estimates?

4) Overly broad identifications of essential fish habitat have made it difficult for the Councils to identify specific areas that need to be protected. What specific measures need to be taken to better aid the Councils in identifying and protecting EFH? What action should Councils be taking for themselves? We realize this was discussed at the hearing, if you would care to elaborate please do so.

5) The latest report to Congress on the "Status Fisheries of the United States" indicates that there are more that 650 stocks for which the biomass is unknown or undefined, making it impossible to determine if they are overfished. Should we, as stewards of the resource, be concerned about this?

6) The Magnuson-Stevens Act, as does most laws, requires that management decisions be made using the best scientific information available. Yet, fishing industry has frequently expressed frustration that this means many fisheries are managed with data that is outdated or inadequate, triggering restrictions that they believe may be unnecessary. At the same time, some in the environmental community believe that inadequate data results in too little protection for many fish stocks. What can be done to improve the fisheries data we use to make management decisions? More importantly, what can be done to restore confidence in these biological assessments?

1. It is my understanding that both situations have occurred. That is, some fisheries have been successful at reducing bycatch and the mortality thereof while others have found useful outputs for formerly discarded catch. In shrimp trawl fisheries; the use of Turtle Excluder Devices and Fish Excluder Devices is reducing bycatch. In long-line fisheries, careful handling procedures are reducing the mortality of bycaught species such as halibut and sea turtles. On the Pacific coast, bycatch is being reduced by moving to new fishing areas when bycatch is encountered and by avoiding certain areas altogether to avoid certain species. In the North Pacific trawl fisheries, the fishing industry contracts with a private firm, SeaState, to monitor bycatch amounts and notify fishermen to avoid areas of high bycatch. SeaState reviews federal fishery observer data that is reported electronically on a daily basis. SeaState then contacts vessel operators, advising them of bycatch "hotspots." The SeaState program is generally aimed at "prohibited species" such as salmon, halibut and crab, species that are reserved for non-trawl fishermen. This voluntary, industry initiative is particularly effective in fisheries that have been rationalized with the advent of fish harvesting cooperatives, which allow fishermen to move out of productive fishing areas where bycatch is encountered without forgoing fishing opportunities. For incidental harvests of non-prohibitied species, the North Pacific Council has implemented an increased retention/increased utilization rule. For example, all pollock and cod harvested by trawl and longline fishermen, regardless of the species being targeted, must be retained and used. The retained catch is utilized in products for human consumption. This program is being expanded to require retention of yellowfin sole and rock sole. As a result of these and other programs, fishery managers in the North Pacific have reduced bycatch by more than half since the mid-1990s. It is important to note that in many cases bycatch is not a conservation issue, particularly where the species by-caught are not overfished or otherwise threatened, but rather a utilization issue. That is, some people believe bycatch represents waste. In such cases, the implementation of full retention/full utilization addresses the primary bycatch concern.

2. The NFI is <u>not</u> proposing that "overfishing should be allowed to occur for social and economic benefits". The NFI is proposing that our overfishing definitions and rebuilding program take into consideration the inherent uncertainty of fisheries science.

Fisheries scientists do not provide unequivocal information to fishery managers. Instead, fisheries scientists report likelihoods to fishery managers, that is, a fishing mortality of X has a certain likelihood (% probability) of rebuilding a stock to a certain MSY level within a certain time frame (ten years). For example, fisheries scientists may report that a fishing mortality rate of 0.1 has a 75% chance of rebuilding an overfished fishery within ten years. Fisheries scientists may also report that a fishing mortality rate of 0.15 has a 65% of rebuilding the same overfished fishery within ten years.

If in this fishery, a fishing mortality rate of 0.15 will allow continued fishing at an economically-viable level during the rebuilding, while a fishing mortality rate of 0.1 is uneconomical and will drive people out of business, the Act should allow the Councils

and NMFS to choose a slightly lower chance of rebuilding in the specified time frame to minimize the otherwise negative social and economic impacts.

Similarly, if a fishing mortality rate of 0.2 has a 75% chance of rebuilding the overfished stock in ten years, and a rate of 0.25 has a 75% chance of rebuilding the stock within 13 years, the Act should allow the Councils and NMFS to extend rebuilding out to 13 years in order to provide for the continued participation of fishing communities.

The rationale for this balancing is the desire to see a commercial fishing industry and supporting infrastructure around when fish stocks are rebuilt. If fishing levels are so drastically reduced so as to drive fishermen out of business, the effects on fishing communities may well be permanent. It is not just a matter of sitting out a few bad seasons until better times. While fishing vessels sit idle, suppliers go out of business and commercial fish docks are purchased by condominium developers. When the stock is rebuilt in ten years, there is nobody left to catch the fish and provide consumers with fresh, wholesome seafood.

It is also important that the rebuilding target for an overfished fishery be realistic. The goal of fisheries management is not to have fisheries at the abundance levels that existed prior to human fishing activities. That is not how fisheries management works. Based on the concept of surplus production, the goal of fisheries management is to maximize productivity, not necessarily abundance. By keeping the total population at some ideal level below the maximum abundance the environment could sustain (carrying capacity), the productivity of the fishery (the number of new fish the fishery produces) is kept as high as possible as the population seeks to refill the environmental space available. This production can be available for harvest by humans without jeopardizing the long-term viability of the fish populations. For a better description of the surplus production concept, I refer you to an excellent manual: Understanding Fisheries Management, 2nd Ed., published by Auburn University Marine Extension & Research Center and the Mississippi-Alabama Sea Grant Legal Program.

In many fisheries (for example, scup and summer flounder) the rebuilding goal is set unrealistically high, such that the likelihood of rebuilding the fishery within ten years under any economically viable fishing mortality rate is extremely low. A more reasonable rebuilding goal would make it more likely to achieve the goal while maintaining a fishery. It all works together. Now some will argue that such an approach would allow fishermen to set a rebuilding goal too low in order to maintain harvest opportunities in the short-term. But as your question indicates, such an approach would hurt fishermen more than anyone else in the medium and long term.

3. With regard to the quality of NMFS fisheries science, in all too many cases, the NMFS has the monopoly on scientific information available for fisheries stock assessments. In the absence of a truly independent peer review of this sole-source of information, the confidence in the quality and objectivity of the stock assessment is questioned by stakeholders. In other fisheries, there have been examples (please see my written

testimony) of peer-reviewed data generated by outside sources (states, universities, other governments) or data generated by industry-funded or cooperative research that the NMFS has been reluctant to incorporate into its stock assessment processes.

With regard to the consideration of environmental variability in the fishery conservation and management process, I am not sure such variability need be incorporated into FMPs on an annual basis, although if the data were available to do so, it could prove to quite useful. The consideration of environmental variability needs to be factored into our concepts of overfishing and rebuilding so that we are not classifying fisheries as overfished if it has not been fishing that has caused a decline in stock abundance. Similarly, the establishment of rebuilding targets needs to assess the current capacity of the marine environment to sustain the rebuilding target to ensure that the target is realistic.

In addition, NOAA and other government agencies have been collecting oceanographic data for decades. The agency should undertake a comparison of this data (ocean temperature, salinity, dissolved oxygen, etc.) with stock assessments and search for correlations.

4. The guidance provided to the Fishery Management Councils by the NMFS for EFH was so broad that the Councils felt the only way to meet the expectations was to include all waters where the species was found as part of EFH. The NMFS needs to clarify its guidance to the Councils such that the emphasis is on discrete, potentially vulnerable subunits of habitat generally that can be identified on a relatively small space scale and afforded protection from negative impacts from both fishing and non-fishing human impacts. The guidance generated by the NMFS for Habitat Areas of Particular Concern was more focused and targeted. This should be the guidance on EFH.

5. In an ideal world with unlimited resources, it would be wonderful to have quality scientific assessments of all of the fishery resources of the world's oceans. However, since we do not have unlimited resources, we must focus those resources where they are most needed. In that context, while it may be true that the status of 650 fish stocks is unknown, it is also true that these stocks account for little of our overall fisheries harvests. In April 2000, the General Accounting Office (RCED-00-69) reported that "although NMFS only knows the status of 25% of the species, this percentage represents about 90 percent of the total weight or volume of all species in U.S. controlled waters". In fact, 618 of the 905 stocks identified in the NMFS 2000 Status of the Stocks Report are "minor stocks" whose combined landings account for just 9 million pounds out of the roughly 9 billion pounds of total U.S. landings.

I believe it is appropriate that our stock assessment efforts are focused on those fisheries, which make the biggest contribution to our fisheries productivity. Even so, the quality of the data being used to manage the 25% of stocks whose status is "known" is inadequate. In far too many cases, the quality of this data is poor resulting in low stakeholder

confidence in the assessment. Any effort to improve our assessment of fishery resources should be focused on improving our analysis of those stocks that contribute to fisheries productivity before being focused on hundreds of stocks that make little contribution.

6. From my written testimony: The NFI believes there are three things that could markedly improve the Best Scientific Information Available: independent peer review of NMFS stock assessment data, cooperative research programs, and equitable treatment of "anecdotal information" from both commercial and recreational sectors.

Every regional fishery management council has a committee that "independently" reviews NMFS stock assessment data. Far too often, these review committees are anything but independent. Often filled with other NMFS employees and recipients of NMFS funding, these committees have inherent conflicts-of-interest that create either conscious or unconscious tendencies to support the NMFS data. With the tendency of truly independent analyses to differ from NMFS-generated data and the unwillingness (now lessening) of the agency to consider outside information, truly independent peer reviews of the scientific data upon which FMPs are based could dramatically improve NMFS stock assessment work and the confidence of user groups in that work.

Other major criticisms of NMFS scientific work are that it is insufficient in quantity and quality and that it lacks stakeholder confidence. Cooperative research programs could go a long-way to solving some of these problems, at least in part. Cooperative research efforts allow the NMFS to leverage limited federal dollars while at the same time building relationships with the commercial sector from which both scientists and fishermen can learn. For example, the Mid-Atlantic commercial fleet, through Rutgers University is currently engaged in side-by-side trawl surveys with a commercial fishing vessel (F/V Jason & Danielle) fishing alongside the NMFS FR/V Albatross at the Albatross' historic sampling sites. Although the data is yet to be analyzed, reports from the vessels indicate a difference in catch of such enormous magnitude that the statistical reliability of NMFS' surveys may be suspect. For example, the commercial vessel has landed as much scup in one tow at one NMFS station as the Albatross landed for its entire survey last year.

On the West Coast, the Pacific groundfish fishery is suffering under a tremendous harvest reduction to rebuild fisheries classified as overfished. With NMFS surveys of these stocks occurring only once every three years, this 30-years old fishery is being managed with essentially ten data points. Cooperative research could help fill these massive data gaps. The General Accounting Office (GAO)[1] in its report last April recommended that the NMFS "increase the involvement of the fishing industry, its expertise, and its vessels in fishery research activities..."

In addition, the NMFS must incorporate anecdotal information provided by fishermen into its stock assessment process, if only to question and/or ground truth the legitimacy of its own scientific information as the side-by-side trawl work I just mentioned suggests. This proposal is constantly scoffed at by NMFS employees and members of the

conservation community. No one is proposing that fishermen shouting at a council meeting "There are plenty of fish out there!" should turn over a NMFS official stock assessment. However, as the GAO reports, NMFS does require commercial fishermen to collect and report about the type, weight, and length of species harvested. Because much of this information cannot be independently verified, NMFS is reluctant to use it. NMFS does, however, use similar self-reported data for recreational fishermen. NMFS obtains information about recreational catches, in part, by calling a random sample of recreational fishermen and asking them what they caught. These unverified responses are then combined with catch data obtained from a sample of recreational fishermen as they land to estimate the total recreational catch. While anecdotal information cannot replace true scientific analyses, it can inform the process in important ways and should be taken into consideration in some manner.

[Response to questions submitted for the record by Mr. Crockett follows:]

Question from the Honorable Robert Underwood

1) It appears the Councils have developed few, if any, measures to minimize the damage that is caused by different types of fishing gear as required by the SFA. What information is needed in order to ensure better compliance with this requirement? Why are these plans being approved?

The Network's study of NMFS implementation of the SFA, *Lost at Sea*, found that only 2 of 39 existing fisheries management plans contained any new measures to protect EFH from damaging fishing practices. The same study found that NMFS' response to inadequate EFH amendments was inconsistent. NMFS disapproved a few inadequate amendments, e.g., the mid-Atlantic and the Gulf of Mexico, while approving equally inadequate amendments in other regions, e.g., New England. It is unclear to the Network what criteria NMFS is using to make these decisions. All of these inadequate EFH amendments should have been partially disapproved for not adequately assessing the impacts of fishing on EFH and minimizing adverse impacts.

2) The latest report to Congress on the "Status of Fisheries of the United States" indicates that there are more than 650 stocks for which the biomass is unknown or undefined, making it impossible to determine if they are overfished. Should we, as stewards of the resource, be concerned about this?

Since 43% of the stocks that have been assessed are either overfished, experiencing overfishing, or both, we should be very concerned that over 75% of the fish stocks under U.S. management are of unknown status. Stocks that may be overfished without our knowledge could be having unknown effects on other species in the ecosystem, for example, low populations of forage species may limit the success of rebuilding programs for predator species. The Network recommends that managers exercise caution in the face of this uncertainty and limit fishing on these unknown stocks until their status can be determined.

3) The Magnuson-Stevens Act, as does most laws, requires that management decisions be made using the best scientific information available. Yet, the fishing industry has frequently expressed frustration that this means many fisheries are managed with data that is outdated or inadequate, triggering restrictions that they believe may be unnecessary. At the same time, some in the environmental community believe that inadequate data results in too little protection for many fish stocks. What can be done to restore confidence in these biological assessments?

Three things can be done in response to inadequate fisheries data. First, managers should exercise the precautionary approach. For example, conservation and management measures should include buffers against scientific uncertainty to prevent or stop overfishing. Additionally, the Magnuson-Stevens Act should be amended to include a new National Standard requiring managers to apply the precautionary approach – exercising caution in favor of conservation when information is absent, uncertain,

unreliable, or inadequate – to conservation and management measures. Second, additional funds should be appropriated for the conduct of fish surveys and stock assessments. Finally, NMFS should make better use of fishing vessels and fishermen in the design and conduct of fisheries data collection efforts. However, any cooperative research efforts should be designed and directed by NMFS.

Questions for Lee Crockett

In the rebuilding of overfished stocks, some have argued that unreasonable rebuilding targets have been set by either the agency or the councils. How are these rebuilding targets established? If the complaint is correct that unreasonable targets are being set, is this a problem with the Act or with the implementing guidance from the agency?

According to the Act, the rebuilding target is the population level that is capable of producing the maximum sustainable yield (MSY). MSY is the target population level that produces the most surplus fish for the fisheries on an annual basis, and therefore should not be looked upon as unreasonable by commercial fishing interests. The rebuilding targets should be based on the best available science and should lead to the stock being rebuilt in as short a time period as possible, but not longer than 10 years. The recent federal district court decision in the summer flounder case found that rebuilding plans must have at least 50% chance of success. Without evaluating a specific rebuilding target, it is impossible to determine whether it is unreasonable; however, we strongly support the legal framework for rebuilding, and as such don't see a problem with the rebuilding provisions of the Act.

In it's April 2000 report to Congress, the General Accounting Office noted that although NMFS reported that it did not know the status of 75 percent of the species (and 30 percent of the stocks) that they manage, the 25 percent that it did know the status of represented about 90 percent of the total weight or volume of all species in U.S. waters. Do you feel this is an accurate statement? Could you comment further?

I don't think that that is an accurate statement. It is more likely that the 25% of the managed stocks of known status produce 90% of the total weight of the fish commercially caught in U.S. waters. NMFS also divided the federally managed fish stocks into "major" and "minor" stocks based on whether their landings totaled more than 200,000 pounds last year. NMFS went on to say that it knew the status of 80% of the "major" stocks. The clear implication of both statements is that federal managers are only concerned with commercially important species. This mindset completely ignores the important ecosystem value of so-called "minor" stocks and must be changed if we are to move to ecosystem-based management. The landings criteria for "major" stocks also shortchanges catch-and-release recreational fisheries, like billfishing, which are among the most economically valuable with a minimal impact on the resource.

Some members of Congress have argued that the identification of EFH by the Councils was far too broad and too sweeping in its implementation. The agency is now urging councils to identify Habitat Areas of Particular (HAPC) which are more discrete areas. Isn't this what Congress actually wanted NMFS to do in the first place? Do we need to create a new designation to accomplish what was originally intended?

The Marine Fish Conservation Network does not believe that the identification of EFH was too broad and sweeping. As I stated in response to a question at the hearing, habitat damage or destruction is difficult and often impossible to reverse; therefore, we think that the Councils identified EFH in an appropriately precautionary manner. We also think that it is appropriate that NMFS is encouraging Councils to identify HAPCs. This will provide greater focus for EFH protection efforts, while keeping the option open to address broader scale, lower impact habitat damage.

Last Congress, this Subcommittee held a hearing on Essential Fish Habitat issues. At that time one of the concerns of the agency was that there was not adequate funding available to fund research into habitat issues. If funding is scarce, does it make sense to look first at the habitat needs of those commercially important species?

NMFS should not focus its habitat protection efforts only to commercially important species. As I said earlier, fisheries management should move beyond its current commercial focus and become ecosystem-based. No species can be conserved in isolation from its environment, and that includes the EFH of associated species. NMFS should also request adequate funds for EFH identification and protection. Its current budget requested only $2.5 million for EFH, while $12.5 million is necessary to carry out this mandate in FY 2002.

One area of concern that has been identified by a number of reviewers of Federal fisheries management is that of the adequacy of scientific data on which management decisions are made. A second concern is that the regulated community does not have confidence in the scientific information generated by the agency. How can we get better data and get better buy-in by the regulated communities?

NMFS should incorporate the affected public, fishermen, the fishing industry, and the conservation community, into the design and conduct of its fisheries science programs. This will create a more transparent process that should create more confidence in the scientific data generated. However, NMFS must retain responsibility for the design and conduct of the research and the analysis of the data to ensure scientific integrity.

We have seen a number of cooperative research survey initiatives that were cosponsored by industry in the last few years. How does the agency use the information from these cooperative surveys, in addition to their own survey

information, to determine stock sizes and total allowable catch levels?

NMFS has been using commercial fishing vessels in the Pacific groundfish fishery and New England scallop fishery to collect resource information for several years. Since NMFS designs the survey work and oversees its completion, we support these types of cooperative research efforts. However, we oppose the use of research and survey data that is solely industry funded, designed, and conducted because we question its objectivity.

Are there other sources of funds that should be considered to gather better data? Have any of the environmental groups funded this type of research?

The Network has recommended that fisheries observer programs be funded through fees based on value and assessed on all fish landed in the U.S. Another source of funding could be the duties from imported fish products. Currently, a small portion of these import duties (approximately $4.8 million in FY 2001) funds fisheries develop projects through the S-K grant program, while the remainder, (approximately $68 million FY 2001) is used to offset NOAA operations. Redirecting these funds would provide a steady source of money for observer programs and other data collection efforts.

The Magnuson Act requires Fishery Management Plans to "minimize to the extent practicable adverse effects on such habitat caused by fishing..." Since the Councils have identified almost the entire EEZ as EFH, this will mean that the agency must collect data on gear impacts for the entire EEZ (approximately 3.4 million square miles). Should the Act be amended to apply the minimization requirement only to the HAPC areas?

No. Very few Councils have identified HAPCs and this limitation would severely limit habitat protection efforts. Even if Councils do identify HAPCs, this limitation would restrict Councils from addressing low grade, chronic, habitat degradation that may impact large areas. I should also point out that Councils are <u>not</u> required to collect data on fishing impacts for the entire EEZ, but rather where fishing gear adversely impacts EFH within the EEZ. We feel that this is entirely appropriate.

The Act currently has been interpreted to prohibit gathering economic data from processors. Why was this restriction put in place and should this issue be re-examined? Are there ways of gathering proprietary data and ensuring its confidentiality?

I do not know the background of this restriction and the Marine Fish Conservation Network does not have a position on gathering economic data from processors. However, Congress may wish to re-examine this issue in light of recent efforts by processors to obtain exclusive processor quotas if individual fishing quota programs are established.

Witnesses have recommended that the councils be authorized to charge fees for observer programs. Have any Councils developed observer programs that are hindered by this lack of authority? Should the Councils be required to submit specific requests to Congress to gain this authority on a case-by-case basis?

The fact that there are very few observer programs in the U.S. can be attributed to the lack of a clear directive from Congress to establish such programs and the lack of a dedicated source of funding. That is why the Marine Fish Conservation Network believes that Councils should be directed to establish observer programs for all fisheries under their jurisdiction to collect statistically valid data. These programs should be funded with a user fees based on the value of all fish landed in the U.S. The Councils should not be required to request authority for each user fee it wishes to establish because it's unduly burdensome.

Several of the witnesses have noted that the use of MSY is problematic. Should Congress look at this term and if so, what target should be used in terms of rebuilding plans?

We do not believe that Congress should provide legislative guidance on the use of MSY. Locking a definition into statute would impede modifying the term as fisheries science evolves.

Questions Concerning Magnuson Act Reauthorization

General Questions

1. Many factors have been identified as potential problems in U.S. fisheries: overfishing, overcapitalization, insufficient data, inappropriate management structures, and ecosystem impacts of fishing. Which of these do you believe is the most pressing problem to be addressed?

As I said at the hearing, overfishing and insufficient data are the most pressing problems that need to be addressed. While NMFS and the Councils have made progress in addressing overfishing, the NMFS national standard guidelines still allow overfishing of weak stocks in mixed-stock fisheries. This loophole, called the "mixed-stock exception," is impeding efforts to restore boccacio rockfish on the west coast and four grouper species that are on the verge of extinction in the Gulf and South Atlantic. Insufficient data is impeding efforts to minimize bycatch. We must establish observer programs to gather the data we need to address this critical problem. Another closely related important problem is the ecosystem impacts of overfishing.

2. Can you give examples of previously overexploited federally –managed species that have been successfully recovered over the past 10 years? What species would you expect to add to the success list in 5 – 10 years? Are there any commonalities that might enhance our chance of success with other overexploited

species? What have been major barriers to success?

The only species that I am aware of that has recovered from being overexploited in the past 10 years has been striped bass. There are other examples, e.g., yellowtail flounder and haddock on Georges Bank, which are showing promising signs of recovery. The common thread in these few success stories is that managers took strong actions to reverse the declines. In the case of striped bass, a coast-wide moratorium was established. With haddock and yellowtail flounder, the New England Council closed large sections of Georges Bank to scallop and commercial groundfish fishing. The major barriers to future success are reluctance by Councils to take aggressive action, and reluctance to stick with the actions in the face of opposition.

3. What are the pros and cons of the "overfishing" and " essential fish habitat" sections of the Sustainable Fisheries Act of 1996? What are the administrative burdens and benefits to Council staff? Can the Councils meet the objectives they are charges with under these sections? Would it be useful to clarify the concept of essential fish habitat, and to provide a clearer mechanism for evaluating the costs and benefits?

The major differences between the overfishing and EFH sections of the SFA is a clear mandate and timeline for Council action. Under the overfishing mandate, overfishing is prohibited and overfished stocks must be rebuilt by a specified time. Under the EFH mandate, Councils are only required to take action, "to the extent practicable," and there is no timeline for action. Consequently, there has been little effort by the Councils to control the one source of habitat damage they have control over, which is fishing. Finally, we do not believe that Councils should conduct cost benefit analyses to determine whether to minimize the impacts of damaging fishing practices on EFH.

4. Does the time required to promulgate federal fishery regulations hinder effective management?

Yes, we are aware of several instances where a Council has taken action to address a fishery problem, only to have the amendment sit in a NMFS regional office for over a year. In addition, if NMFS disapproves or partially approves a plan or amendment, there are no time limits for Councils to correct the deficiencies. Several inadequate SFA implementation amendments were disapproved by NMFS with no subsequent Council action. In both situations, necessary management measures are needlessly delayed. Congress may wish to provide further, more explicit, guidance to ensure timely management of our fisheries.

Management Options

1. In your opinion, what is the primary benefit and the primary drawback of the existing system of Regional Fishery Management Councils? What changes might lead to more successful management?

The major benefit of the Council system is fishing industry involvement and the major drawback is fishing industry involvement. The system benefits from the insights of the affected industry; however, allowing individuals with a financial stake in a fishery to vote on management measures that affect their financial interest impedes sound management. The Marine Fish Conservation Network recommends that these problems be addressed by adding individuals who represent the public interest to the councils and by prohibiting individuals with any financial interest in a fishery from voting on a matter that will affect their financial interest.

2. How might the Magnuson-Stevens Act be amended to address the problem of frequent industry opposition to strong conservation and management measures? Should fishermen be given more or less influence over the management measures adopted?

As I stated above, these problems could be addressed by prohibiting fishing industry representatives who have a financial interest in a fishery from voting on a matter that will affect their financial interest. Such representatives would still have input into the process and provide information to the Councils, but they could not vote if they had a conflict. This would better allow Council members to support measures because of their benefit for fisheries resources. In addition, NMFS should take a more active role at the Council level to guide Councils to measures that are more protective of the resource. Finally, NMFS should disapprove inadequate Council management actions more often.

3. Should the blanket moratorium on individual fishing quota programs (IFQs or ITQs) be lifted? If no, what is your main reason for opposing these programs under all circumstances? If yes, should there be nationwide standards for quota programs?

The moratorium on IFQ programs should not be lifted unless and until Congress adopts national standards to ensure that such programs protect the marine environment, fishermen, and fishing communities. For your information, I have attached a summary of the Marine Fish Conservation Network's proposed IFQ legislative standards.

4. Current management practices address species independently, attempting to achieve maximum sustainable yield for each species. Is this realistic? Can all species be exploited at maximum sustainable yield levels simultaneously?

The Marine Fish Conservation Network believes that fisheries management should move from single species to ecosystem-based management. However, ecosystem-based

management should not be used as a rationale to overfish certain species within an ecosystem. It should be noted that the MSY population level is not the population at its peak size, but rather the size when its reproductive potential is at its peak. These are not the same thing, and from an ecosystem perspective, there is no reason to believe that an ecosystem in balance cannot support a wide variety of populations at the MSY level.

5. Moves toward more decentralized fisheries management in the Maine lobster fishery, and in other fisheries here and abroad, have shown some successes in terms of conservation and social and economic outcomes. Is more decentralization of management desirable in some of our fisheries? If so, should the Magnuson-Stevens Act be amended to encourage experiments with decentralized approaches to fisheries management?

The Marine Fish Conservation Network has no position on decentralized approaches to fisheries management.

6. Are there changes needed to influence how Councils meet NEPA requirements in developing and amending fisheries management plans?

Under current practice NMFS and the Councils conduct NEPA analyses after a Council has adopted a management measure. Therefore, rather than NEPA being used as a decision making tool to identify the management alternative that will be the least damaging to the environment, it is used to justify a predetermined alternative. Our experience is that these analyses are often inadequate because they don't explore the full range of alternatives nor do they contain an adequate analysis of the alternatives. I do not know whether legislative changes are necessary to address these problems, but this may be a fertile area for Congress to conduct oversight hearings.

7. Would it be better to assign a single council staff person to be responsible for the entire process of data collection, scientific assessment, and provision of management advice for each fishery?

The Marine Fish Conservation Network has no position on council staffing.

Enforcement and Compliance

1. The vast area of our EEZ, the hundreds of fishing ports and tens of thousands of fishing craft make monitoring, control, and surveillance extremely difficult. How might the Magnuson-Stevens Act be amended to encourage the use of alternative methods for strengthening compliance with regulations? Should non-governmental bodies be allowed to supplement existing enforcement resources?

One new enforcement tool that we believe shows promise is vessel monitoring systems (VMS). These satellite-based tools are particularly effective at enforcing closed areas.

The major impediment to the use of VMS is money to purchase transponder units and for procuring the satellite data. The cost of transponder unites, which cost a few thousand each, should be borne by fishing vessel owners. A user fee could be established to pay for operation of the VMS system.

2. The U.S. spends $600 million annually on fisheries management, mostly for enforcement of the Magnuson-Stevens Act. Other fishing nations, for example Australia, Canada, and New Zealand, have implemented user charges to recover the costs of fishery management services. Should the Magnuson-Stevens Act be amended to require that some of the costs of management be recovered from users of our marine fisheries resources? If so, what principles should govern a cost-recovery program for U.S. fisheries?

The Marine Fish Conservation Network supports the imposition of user fees to fund fisheries observer programs. We do not have a position on user fees to fund general fisheries management. However, we do believe that quota shareholders in IFQ programs should be required to pay the direct costs of administration, including the costs of enforcement and observers. In establishing a cost recovery program, the fees should only be large enough to cover the cost of administration of the fishery. Fees should only be used for their intended purposes not to offset general NMFS administration.

Social Science and Fishing Community Concerns

1. How could we improve opportunities for collaboration in research and management between fishermen and regulators?

As I stated above the Marine Fish Conservation Network supports cooperative research with the fishing industry, as long as NMFS designs and oversees the collection of the data.

2. What is the significance of National Standard 8, on fishing communities? What, if anything, could be changed in the Magnuson-Stevens Act or its implementation to better protect coastal fishing communities?

The significance of National Standard 8 is that it requires the minimization of economic impacts on fishing communities, but not at the expense of needed conservation measures. This will ensure that the long-term economic viability of the community will be sustained, because critical fisheries resources will be maintained. We do not believe that National Standard 8 needs to be amended.

3. Some observers have noted that fishermen frequently oppose conservation and management measures because they have little assurance that current sacrifices will be rewarded in the future. How can the Magnuson-Stevens Act be amended to improve the prospects that fishermen's sacrifices will be perceived as worthwhile, and thus improve compliance with regulations?

Well-designed and determined rebuilding programs are the best assurance that the resource will be in a healthy and productive condition in the future, thus increasing fishing benefits and opportunities. We cannot support any proposal that entitles a particular fisherman to any predetermined participation in a future fishery based on their sacrifices. It could be that those required to make the most sacrifice at the time a rebuilding program goes into place are those that are most responsible for the problems, while other fishermen who have not caused problems have been squeezed out. It is also possible that some sectors should be phased out during the rebuilding program if, for example, they fish with unsuitable or destructive gear.

Science and Data Needs

1. The current process for determining data collection and research priorities is driven primarily by line items in the budget and other centralized political decisions. Would this process, and management outcomes, be improved if managers within each fishery were given greater authority and leeway to determine appropriate data collection and research programs?

The Marine Fish Conservation Network does not have a position on giving managers within a fishery greater authority to determine appropriate data collection and research programs.

2. Are the data currently available for estimating fish stocks adequate to support the decisions that federal fishery managers must make?

In many cases, yes. Although information can always be improved in quality and quantity, fisheries managers often have adequate data in order to make management decisions. When data are uncertain, they often provide at least a basis for taking precautionary action. However, greater funding and effort are necessary to improve the data available to managers. In addition, managers should utilize precautionary management principles when data is poor or unavailable. Finally, fishing should not be allowed in fisheries where adequate data does not exist.

Questions for Dr. Houde
Subcommittee on Fisheries Conservation, Wildlife and Oceans
Magnuson Reauthorization Hearing

* In the rebuilding of overfished stocks, some have argued that unreasonable rebuilding targets have been set by either the agency or the councils. How are these rebuilding targets established? If the complaint is correct that unreasonable targets are being set, is this a problem with the Act or with the implementing guidance from the agency?

* In it's April 2000 report to Congress, the General Accounting Office noted that although NMFS reported that it did not know the status of 75 percent of the species (and 30 percent of the stocks) that they manage, the 25 percent that it did know the status of represented about 90 percent of the total weight or volume of all species in U.S. waters. Do you feel this is an accurate statement? Could you comment further on this?

* Some members of Congress have argued that the identification of EFH by the Councils was far too broad and too sweeping in its implementation. The agency is now urging councils to identify Habitat Areas of Particular Concern (HAPC) which are more discrete areas. Isn't this what Congress actually wanted NMFS to do in the first place? Do we need to create a new designation to accomplish what was originally intended?

* Last Congress, this Subcommittee held a hearing on Essential Fish Habitat issues. At that time, one of the concerns raised by the agency was that there was not adequate funding available to fund research into habitat issues. If funding is scarce, does it make sense to look first at the habitat needs of those commercially important species?

* One area of concern that has been identified by a number of reviewers of Federal fisheries management is that of the adequacy of scientific data on which management decisions are made. A second concern is that the regulated community does not have confidence in the scientific information generated by the agency. How can we get better data and get better buy-in by the regulated communities?

* We have seen a number of cooperative research survey initiatives that were cosponsored by industry in the last few years. How does the agency use the information from these cooperative surveys, in addition to their own survey information, to determine stocks size and total allowable catch levels?

* Are there other sources of funds that should be considered to gather better data? Have any of the environmental groups funded this type of research?

* The Magnuson Act requires Fishery Management Plans to "minimize to the extent practicable adverse effects on such habitat caused by fishing..." Since the Councils have identified almost the entire EEZ as EFH, this will mean that the agency must collect data on gear impacts for the entire EEZ (approximately 3.4 million square miles). Should the Act be amended to apply the minimization requirement only to the HAPC areas?

* The Act currently has been interpreted to prohibit the gathering of economic data from processors. Why was this restriction put in place and should this issue be re-examined? Are there ways of gathering this proprietary data and ensuring its confidentiality?

* Witnesses have recommended that the Councils be authorized to charge fees for observer programs. Have any Councils developed observer programs that are hindered by this lack of authority? Should the Councils be required to submit specific requests to Congress to gain this authority on a case by case basis?

* Several of the witnesses have noted that the use of MSY is problematic. Should Congress look at this term and if so, what target should we use in terms of rebuilding plans?

Subcommittee Questions Directed to E. D. Houde

I am responding to the request to answer the 11 questions specifically addressed to me in Subcommittee correspondence dated 17 April 2001. My answers are brief. I could elaborate on some of them if requested to do so.

1. **'Targets for Rebuilding overfished stocks–are they unreasonable?'**

Rebuilding targets generally are set to first reduce fishing mortality to a rate that will prevent overfishing. The magnitude of the reduction in fishing mortality will determine the time necessary to rebuild the stock. Councils are mandated to rebuild within a 10-year timeframe unless they can show that this is not possible, given the particular biology of a stock. For example, long-lived fishes often are not highly productive and rebuilding will require >10 years. Many fisheries that are overfished are not in a state of near collapse; many got into the overfished state over a period of many decades. Those who argue that a 10-year rebuilding timeframe is too short believe that less social and economic upheaval will ensue if the rebuilding period is longer. Advocates for the 10-year timeframe believe that we must adopt rigorous and timely programs to correct overfishing or little will be accomplished by allowing excuses for delay. The agency has been a strong presence in insisting that rebuilding plans follow the 10-year criterion. I am sympathetic to the view that rebuilding should not be delayed, but think that many stocks simply will not respond sufficiently in a 10-year period. We should be rigororous but must recognize that many long-lived stocks (e.g. New England groundfish, Gulf of Mexico reef fishes) may not rebuild in a 10-year period. Are there social and economic justifications to delay rebuilding? Possibly, but such delays should not be routine. There is need for appropriate language in the reauthorized Act.

2. **'Status of fished stocks'**

I believe that the NMFS evaluation is correct in this regard. While only 25% of stocks are assessed well, they do constitute the major fished stocks and biomass in US waters. I can't corroborate their 90% figure for biomass included in the 25% assessed stocks, but it sounds reasonable. Stocks like walleye pollock, herring, mackerel, and the aggregate groundfishes, which are reasonably well assessed, are abundant and have dominant biomasses. It is a concern that 75% of stocks are not assessed well because some of these are the object of intensive fisheries and are overfished, or they are bycatches in directed fisheries and could be brought to low levels of abundance inadvertently during fishing for other species. Concerns over ecosystem-level effects of fishing, multispecies interactions and biodiversity come to the fore here. Thus, it is important to assess the 75% in the future to determine their status.

3. **"EFH and HAPC'**

I am not certain what Congress wanted the Councils to do, but the interpretation certainly seems to have been that EFH constituted virtually every nook and cranny that was occupied by a fish during some stage in its life. The reauthorized Act needs language to clarify intent, possibly moving towards a definition that resembles HAPC. Specific language in the Act

could have a very positive effect on designating habitats that are essential and need particular attention to insure continued productivity of fisheries.

4. **'EFH and need for funding'**

I think that with scarce funding, which I believe is the case, it makes sense to focus on habitats of heavily fished stocks, not just commercial species but also those pursued by recreational fishers. In cases where the fishing process itself has degraded productive habitats, EFH must be considered in a broader ecosystem context, with an eye to protect biodiversity, critical species interactions, etc.

5. **'Adequacy of scientific data'**

I commented on this question in a previous correspondence. Here, I will simply state that the quality of data in fisheries and its management and use for management needs to be improved. Data from all sources should be considered; the peer review process should be applied to all data and analyses that are applied to derive assessments and management advice. In this regard, the recent NRC study on 'Improving Data Collection and Utilization' and the CORE report on 'Best Available Science' should be consulted. The NRC report, in particular, is loaded with advice that could be translated into particular language in the reauthorized Act, including their recommendation for a national 'Fisheries Information System' which is overdue.

6. **'Cooperative industry surveys'**

I am not able to answer this question.

7. **'Other sources of funds to gather data'**

My sense on this question is that the NMFS is the best agency and institution to gather data and conduct stock assessments of major, widely-dispersed, stocks over long time periods. University scientists make valuable contributions, usually in development of new models, theory, and methods. Application of methods over the long haul can be accomplished best by a government agency charged to collect the data and conduct assessments. This does not mean that the agency should not have oversight. Expert and peer review is needed. There are some environmental issues, habitat concerns, species issues, etc. with fisheries implications that can be very expertly conducted by universities and some NGOs, but these groups are simply not able to sustain long-term data collection and assessment programs in a big ocean. Environmental groups may fund some small data-collection projects but their emphasis is mostly focused on critiquing policy, interpreting policy issues, reviewing assessments, producing synthesis documents that promote their point of view (which often differs from the agency), and developing long-range strategies that promote environmental wellbeing. If an environmental group can collect data on a fishery or a fisheries issue and make a recomendation for management action, it is my belief that its advice/recommendation should be heeded just as the agency's advice is accepted, provided the data and analysis stand up to expert review.

8. **'EFH and the EEZ. How much area to assess?'**

My answers to Questions 3 and 4 partly address this question. If EFH remains broadly defined, then it seems impossible to evaluate habitat and classify it over the entire EEZ. If we move towards an HAPC definition, the possibilities seem better. Once again, it seems clear that the reauthorized Act can make an important contribution to solving this problem while insuring evaluation of the most important habitats- -by including specific language that provides guidance to the agency and to the Councils.

9. **'Processors and economic data'**

I am not well informed on this issue. But, my view is that all elements of a fishery that harvests public natural resources should be held accountable and should be responsive to needs for data to insure that the public's resource is not jeopardized. How are forestry operations on public lands treated in this respect? Are forest products processors required to provide data to resource managers or government agencies? I understand that confidentiality is a concern, but not such a great one that one risks loss or collapse of a public resource.

10. **'Fees for observer programs'**

I am unable to answer this question

11. **'Is MSY problematic?'**

Without going into the details of why MSY is insufficient as a management target (it is too risky), let me state that I think our concept of MSY and how to use it in a management context has evolved appropriately. It is an objective measure of productive capacity of a stock. However, we do not want to fish at effort levels that can take MSY, which generally is now considered a threshold to avoid, rather than as a target to catch. MSY is not problematic when applied in this context. If we can estimate it (or a proxy for it), we know that the target should be less; this is an important reason to continue to estimate MSY and include it in management plans. Most targets in managed US fisheries now are based on fishing mortality rates that are estimated to conserve a safe proportion of spawning biomass, a biomass that almost always is larger than the biomass which supposedly supports a harvest at the MSY level.

There has been a good deal of research on targets, thresholds, and fishing strategies to avoid overfishing since the last reauthorization of the Act. Most of the research, and evolving management , concludes that risk-averse, precautionary approaches are required to sustain fisheries. There is considerable evidence to indicate that amended FMPs are more precautionary than they were previously. Targets virtually always are set at levels less than MSY. The 1996 reauthorization of the Act recognized the need for risk-averse and precautionary management. The language in the upcoming reauthorization should be carefully reviewed, but I think that present language is generally acceptable in this regard.

Questions for the Record from The Honorable Robert Underwood

Houde

1) Overly broad identifications of essential fish habitat have made it difficult for the Councils to identify specific areas that need to be protected. What specific measures need to be taken to better aid the Councils in identifying and protecting EFH? What action should Councils be taking for themselves? We realize this question was discussed at the hearing, but if you would care to elaborate please do so.

2) The latest report to Congress on the "Status Fisheries of the United States" indicates that there are more that 650 stocks for which the biomass is unknown or undefined, making it impossible to determine if they are overfished. Should we, as stewards of the resource, be concerned about this?

3) The Magnuson-Stevens Act, as does most laws, requires that management decisions be made using the best scientific information available. Yet, fishing industry has frequently expressed frustration that this means many fisheries are managed with data that is outdated or inadequate, triggering restrictions that they believe may be unnecessary. At the same time, some in the environmental community believe that inadequate data results in too little protection for many fish stocks. What can be done to improve the fisheries data we use to make management decisions? More importantly, what can be done to restore confidence in these biological assessments?

4) In, Mr. LeBlanc's testimony he says that NMFS' assessments method are simply not able to get an accurate estimate of how many fish are out there. Does anyone really have an accurate estimate? Is there better, peer-reviewed science being done that needs to be factored in to NMFS assessments? And given that environmental variability is just that, variable, how can it be factored in on a year-to-year basis? How often would this variability be calculated and included in stock estimates?

5) In Mr. LeBlanc's testimony he suggests fishery managers should combine the mortality rate that would produce overfishing, provided by scientists, with social and economic concerns and strike a balance. Could he be suggesting that overfishing should be allowed to occur for social and economic benefits? Wouldn't these benefits be short term, and result in a much worse economic situation for fishermen in the end when the fishery collapses and has to be shut down or severely curtailed?

Questions for the Record for the Magnuson-Stevens Hearing of April 4, 2001

Edward D. Houde

University of Maryland Center for Environmental Science

Answers to questions sent by Robert Underwood on 5 April 2001

Q1. Virtually everyone agrees that the M-S SFA did not define EFH rigorously and explicitly enough to make the SFA effective in guaranteeing identification and protection of critical areas. There is no specific requirement of Councils to take actions with respect to management based on EFH considerations. The Councils probably worked in good faith to fulfill the SFA's mandates, but needed more guidance, which the reauthorization hopefully will provide. In my opinion, designation of EFH and a broad suite of management actions that might be enacted with respect to them should focus on spawning areas/sites, nursery areas, and critical habitats associated with those activities. It is only prudent to be protective of all habitat that supports fish, but management measures should focus on specific habitats, especially those that sustain recruitments to the stock. If EFH must be defined for all species that fall under the SFA, this is an enormous task and, in reality, cannot be done well for many of the 'minor' managed species for which we have relatively little knowledge of habitat requirements.

Q2. We should be concerned that there is poor stock assessment data for >650 stocks, but the magnitude of the problem is not as great as it might seem. Most of the major fished stocks are assessed reasonably well. It is stocks that support smaller and less valuable fisheries that are less well known. In a sense, many of these stocks are 'protected' by their small population sizes and low economic value. It is less likely that they will become the targets of intense and overcapitalized fisheries. On the other hand, species that are caught incidental to major fisheries (i.e. bycatch) potentially could be overfished despite not being the target of a directed fishery. It certainly is desirable to obtain good assessments of the 'minor' species, but we probably can categorize them now and determine which are most in need of assessment immediately and which are less in need of immediate assessments. Of course, this is an exercise that is relative-i.e. if funds were available, we should obtain the best assessments possible, but this is very expensive.

Q3. Data collection and its management certainly can be improved. All members of the 4 April Panel supported the need for better data in fisheries management. In this respect, the Congressionally mandated National Academy study (NAS 2000) on fisheries data collection, management and use (cited in my written testimony) provides very detailed advice on how to improve the situation. The NAS study recommended institution of a national Fishery Information System (FIS) among its long list of suggested improvements that could be implemented. They pointed out that more funds are needed to support better collection and management of data, which should not be a surprise.

Q4. No other agency or institution in the United States is better able at present to collect,

analyze, and use data for stock assessments than NMFS. There always is room for peer review of science and that is the case with NMFS. Much of their science that is brought to the Councils is reviewed by Sci and Stat Committees, but not always as rigorously as possible. Alternative data sources should be considered in any assessment, especially in controversial fisheries, or in cases where fisheries are thought to impact other elements of the ecosystem (e.g. marine mammals).

Congressman Don Young requested that the Consortium for Oceanographic Research and Education (CORE) convene a workshop to address the question of "best scientific information available" and how to obtain it, evaluate it, and use it in fisheries management. The experts who convened produced a CORE report that is worth considering in the reauthorization process of the SFA. They recommended that procedural standards be developed for utilization and application of data in fisheries management. In addition, they considered ways in which confidence can be built in the quality, relevance, and applicability of fisheries data. The report and advice in it could be usefully incorporated into language of a reauthorized SFA (CORE. 2000. The use of scientific information in fisheries management. The report of a CORE fisheries workshop, 18 Feb. 2000 <http:core.cast.msstate.edu/fishmanage.html>). The NAS 1998 study on "Improving Fish Stock Assessments" also provides good advice and language that could be adopted to advantage in a reauthorized SFA.

Environmental variability is a fact of life. Some of the variability is understood and its effects are predictable. Other kinds of environmental variability that are weather and climate related are unpredictable and probably will remain so for decades. We can observe trends in some major oceanographic environments (e.g. Pacific Decadal Oscillation) that have effects on fisheries that are beginning to be understood. But, much of environmental variability will be poorly or not understood far into the future. To me, this means that we must manage in a precautionary manner, taking account of the uncertainties of the environment. Uncertainty will always be an issue in fisheries management. Taking it into account means that risk-averse, precautionary management that is also adaptive should be the rule. I see signs that NMFS and the Councils are following that general rule more in recent years, which is encouraging.

Q5. I am not certain what Mr. LeBlanc was implying, but my personal view is that we should not compromise and allow overfishing for social and economic reasons. Overfishing usually leads progressively to poorer stock conditions and ultimately to poor economic returns, which then impacts other fisheries as fishing effort disperses into them, thus threatening them with overfishing as well. The M-S SFA goal to eliminate overfishing and rebuild/restore stocks in a reasonable timeframe is a good measure in the Act. I suppose that there are some social and economic conditions that might be argued to support the view that overfishing is justified in the short term, but I am hard pressed to find justifications for this view.

Benefits of overfishing may be short term, but it has been traditional in fisheries to believe that things will improve of their own accord if simply given enough time. That view and approach have proved to be imprudent in the past two decades as many overfished stocks have collapsed economically or biologically. I really believe that management actions must be taken early to head off overfishing. Quota and fishing effort thresholds that are risky no longer viable

as targets in fisheries management. We should manage in a risk-averse way to allow only a low probability of management failure and to prevent overfishing. I recognize that most fishers cannot buy into this concept because of the high discount rate in fisheries. Strong conservation measures imposed today may curtail a fisher's activity and may not bring benefits to an individual fisher for years, if ever. Who pays the mortgage in the meanwhile? This is a dilemma- -fishers are often unable to support rigorous management, even when a stock is overfished. But, for the long-term wellbeing of the stock and eventual wellbeing of fisheries, decisive actions must be taken to prevent overfishing and to rebuild overfished stocks.

GULF OF MEXICO FISHERY MANAGEMENT COUNCIL
The Commons at Rivergate
3018 U.S. Highway 301 North, Suite 1000 • Tampa, Florida 33619-2266
(813) 228-2815 • FAX (813) 225-7015
e-mail: gulfcouncil@gulfcouncil.org

June 11, 2001

Via Federal Express

Mr. Dave Whaley, Staff
Committee on Resources
H2-188 Ford House Office Building
Washington, D.C. 20515-6232

Dear Mr. Whaley:

Please find a corrected copy of responses of our staff to the questions raised by Ranking Member Representative Robert Underwood of the Subcommittee on Fisheries Conservation, Wildlife, and Oceans.

I appreciate you taking time from your busy schedule to attend the meeting of the Chairs of the eight Regional Fishery Management Councils.

Best personal regards.

Sincerely,

Kay Williams
Gulf Council Chair

HKW:WES:lde

Enclosures: (1) Staff Responses to Representative Robert Underwood
(2) Gulf Marine Protected Areas Established by the Gulf Council

c: Gulf Council, w/enclosure 1
Other Councils, w/enclosure 1
Technical Staff, w/enclosure 1

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GULF COUNCIL STAFF'S RESPONSES TO REPRESENTATIVE UNDERWOOD'S QUESTIONS

1) **Other than the North Pacific Council which had a specific mandate in the SFA to reduce bycatch in the fisheries it manages, have any of the Councils adopted NEW measures intended to reduce bycatch or the mortality of bycatch as they were required to do by the SFA? If not, why not?**

In 1998 the GMFMC implemented, through Shrimp Amendment 9, the requirement that all shrimp vessels fishing in the EEZ west of Cape San Blas, Florida to the Mexican border be required to install bycatch reduction devices (BRDs) in the shrimp trawls to reduce finfish bycatch, and especially bycatch of juvenile red snappers. That area is the principal range of our groundfish stocks, and historically (1973-1976) the shrimp fleet was taking an average of about 232,000 metric tons of finfish that was discarded overboard, or about 10 pounds of finfish for each pound of shrimp. By 1992-1994 the ratio had changed to 4.1 pounds of finfish for each pound of shrimp largely due to the changes in design of trawls deployed by the industry, and the requirement that turtle excluder devices (TEDs) be installed in all the trawls. The requirement for BRDs will further reduce that ratio significantly. This year the Council will take final action on Shrimp Amendment 10 that will reduce bycatch in the Eastern Gulf, principally the Florida Shelf. Currently approved BRDs have been shown to reduce fish catch by 30 to 40 percent. Recent technological improvements in BRD design by NMFS suggests that reduction rates of 60 percent or greater can be achieved. The shrimp fishery was the only fishery we manage with significant bycatch problems.

2) **How difficult has it been for the Councils to meet the deadlines required to comply with the new requirements imposed by the SFA? What tools do the Councils need to better comply with the new requirements?**

In our region it has been most difficult to comply with the National Standard Guidelines (NSG) as interpreted by NMFS for Standard No. 1, and significant portions of our Generic Sustainable Fisheries Act Amendment, submitted in 1999, were disapproved by NMFS. Many of the portions disapproved related to the provision in the NSG that the criteria used as a standard to determine whether a stock was overfished be stated as a minimum stock size threshold (MSST) expressed in terms of biomass. With the data available to us we have not been able to compute reliable estimates, particularly for those stocks that are long-lived (20-50 years). This is really not a problem with the SFA since it defined both overfishing and overfished as rates of fishing mortality that jeopardize the capacity of a fishery to produce MSY. The fishing mortality levels we used for describing overfishing in our Generic SFA Amendment were largely approved. The problem is having adequate data to compute reliable estimates of MSST in terms of biomass.

3) **Overly broad identifications of essential fish habitat have made it difficult for Councils to identify specific areas that need to be protected. What specific measures need to be taken to better aid the Councils in identifying and protecting EFH? What action should Councils be taking for themselves? We realize this question was discussed at a hearing, but if you would care to elaborate, please do so.**

We concur with the position of the Chairs of the eight Regional Fishery Management Councils on this issue which is as follows:

Section 303(a)(7)...Essential Fish Habitat
The Sustainable Fisheries Act (SFA) required Councils to identify and describe essential fish habitat (EFH), but gave little direction on how to designate EFH. The EFH definition, i.e., "those waters and substrate necessary for fish for spawning, breeding, feeding or growth to maturity," allows for a broad interpretation. The EFH Interim Final Rule encouraged Councils to interpret data on relative abundance and distribution for the life history stages of each species in a risk-averse manner. This led to EFH designations that were criticized by some as too far-reaching. "If everything is designated as essential then nothing is essential," was a common criticism. The Council Chairs believe that the current definition and descriptions of EFH serve a very useful purpose in the consultation process between NMFS and agencies that are responsible for permitting or carrying out proposed development projects in the marine environment. Those waters and substrates necessary to fish for spawning, breeding, feeding, or growth to maturity are all habitats of importance to each fishery stock, and the range of each stock from egg to maturity is overlapped by the ranges of hundreds of other stocks. The Council Chairs do, however, endorse the concept of using habitat areas of particular concern (HAPCs) as the next step in describing areas of EFH critical to certain life history stages for each stock, as proposed in the two Senate bills drafted in 2000. For years a number of Councils have established HAPCs to protect pristine coral reef habitats and spawning aggregation sites.

4) **It appears the Councils have developed few, if any, measures to minimize the damage to habitat that is caused by different types of fishing gear as required by the SFA. What information is needed in order to ensure better compliance with this requirement? Why are these plans being approved?**

The Council, over the period 1981-2001, has created about 130,000 nautical miles^2 of marine protected areas (MPAs) many of which were designed to prevent damage by gear to important habitats (see enclosed summary of MPAs established by the Gulf Council). These include: 2 HAPCs, 3 marine reserves in spawning aggregation sites, 2 shrimp nursery grounds, and the stressed area prohibiting certain gear nearshore where natural coral reefs occur.

The bottoms in the Western and Central Gulf are largely mud or clay bottoms as a result of the 200 million metric tons of suspended sediment the Mississippi River deposits annually into the Gulf. For eons the amount was twice this level since dams did not interrupt this flow. Much of this is silt (organic matter) and colloidal (clay) particles that were broadly dispersed by lens of freshwater (average flow 920 billion gallons per day) that float on the more saline water during flood and highwater periods. When these particles come into contact with the more saline water they flocculate out and sink to the bottom. The bottoms are continually being covered by annual layers of suspended sediment. For example, if oyster reefs cease growing vertically they are covered by the suspended sediment as it settles out on the bottom. The Florida Shelf has large expanses of exposed marl (limestone) and hard bottom. We have no scientific information that indicates that gear presently approved adversely impact these areas and, therefore, no basis to include more specific regulations. We did participate with NOAA, NMFS, USCGS, and DOC in developing a 5-year research program to evaluate the effects of gear on the Gulf of Mexico habitats, with highest priority on longline gear. Also, our staff recently presented data to a special committee of the National Research Council that is studying the effects of bottom fishing gear on habitats.

5) **If the Councils are lacking data on bycatch, why have they not adopted the "standardized reporting methodologies to assess the amount and type of bycatch occurring" in these fisheries, to provide them with the data they need to reduce bycatch? Obviously, existing methodologies must be inadequate, or the data would be available.**

Our Council did submit proposed measures to provide for standardized reporting of bycatch by providing authority to NMFS to standardize the reporting forms for the 7 fisheries we manage. The proposed measures in the SFA Amendment were partially disapproved, and we are in the process of resubmitting revised measures. However, while this may address the reporting requirements submitted by fishermen, for some fisheries observer data will be required. In some fisheries, NMFS will need the funding to support these observer programs as the profit margin of the industry is not sufficient to support observer funds.

6) **For those fisheries where bycatch has been reported to have been reduced, is it the case that fishermen are actually minimizing the amount of non-target species they catch, and reducing the mortality of those they do catch, or are they simply retaining the same levels of bycatch and implementing some sort of full utilization system, such as turning it into fish meal?**

In the case of the shrimp fishery the former is definitely the case. The BRDs are minimizing the non-target species they catch. Even the TEDs exclude large finfish.

7) **The Magnuson-Stevens Act, as does most laws, requires that management decisions be made using the best scientific information available. Yet, the fishing industry has frequently expressed frustration that this means many fisheries are managed with data that is outdated or inadequate, triggering restrictions that they believe may be unnecessary. At the same time, some in the environmental community believe that inadequate data results in too little protection for many fish stocks. What can be done to improve the fisheries data we use to make management decisions? More importantly, what can be done to restore confidence in these biological assessments?**

We support the establishment of cooperative research programs under the MSA which can involve the industry and environmental community for the collection of fishery data, using the program established in New England as an example. We feel this will not only greatly improve the database for assessments, but will also result in the assessment having more credibility with those user groups.

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Questions for the Record from The Honorable Robert Underwood

WESTERN PACIFIC REGIONAL FISHERY MANAGEMENT COUNCIL

Responses from the WPRFMC to questions arising from Magnuson-Steven Act hearing of April 4 2001:

1. Other than the North Pacific Council, which had a specific mandate in the SFA to reduce bycatch in the fisheries it manages, have any of the Councils adopted NEW measures intended to reduce bycatch or the mortality of bycatch as they were required to do so by the SFA. If not, why not.

In 1998 the Western Pacific Council contracted an environmental firm to test seabird bycatch mitigation measures on Hawaii longline vessels. The Council completed a framework adjustment to the Pelagics Fishery Management Plan and sent the document to NMFS in November 1999. The measures contained therein would have reduced albatross interactions with the Hawaii longline fishery by up to 90%. A proposed rule was published in July 2000. The success of the measures in the framework adjustment is founded on the education and cooperation of fishermen, through mandatory attendance at annual protected species workshops for longline vessel owners and skippers, and a requirement for fishermen to handle all incidentally caught seabirds in a manner to ensure their long term survival. The workshops cover the entire range of protected species including measures for de-hooking sea turtles to ensure the least trauma and long term survival of turtles hooked and/or tangled in longline gear.

The initial framework adjustment document was preempted by the November 2000 Section 7 Biological Opinion by US Fish and Wildlife Service for the short-tailed albatross. The BO mimics these provisions, but mandates mitigation measures to fishermen instead of allowing them to determine which suite of measures works best for their style of fishing. The Council framework measure, which addresses all seabirds, and not only the short-tailed albatross, has yet to be approved by NMFS. The Council agreed in February 2001 to modify its Pelagics FMP framework adjustment so that it implemented the USFWS measures and sent the revised document to NMFS in March 2001 for review and approval.

NMFS proposes to publish an emergency rule stemming from litigation on sea turtle bycatch in the Hawaii longline fishery and the subsequent NMFS-authored Section 7 Biological Opinion. The rule implements the Reasonable and Prudent Measures of the Biological Opinion which was published in March 2001. The emergency rule is intended to reduce bycatch of sea turtles in the Hawaii longline fishery by 60-80%.

The Council sent to NMFS an amendment to the Council's Pelagics Fishery Management Plan (FMP) in June 2000 implementing measures for shark management. Originally this measure included an annual harvest guideline for blue sharks, a trip limit for non-blue sharks, and a ban on the use of demersal longline gear to catch pelagic management unit species in Hawaii, and in

particular coastal sharks. State of Hawaii and Federal legislation in 2000 banned the practice of shark finning, which rendered moot the annual blue shark harvest guideline. This was implemented to address concerns about blue shark harvests being driven primarily by finning. The document is currently under revision to implement the non-blue shark trip limit and the demersal longline gear to catch pelagic management unit species in Hawaii. The ban on demersal longline gear stems from several concerns including potential bycatch and mortality of sea turtles and Hawaiian monk seals.

The Council is close to finalizing a Coral Reef Ecosystem Fishery Management Plan. Several gears are banned for use on reefs in Federal waters due to bycatch concerns.

In December 1999 measures were adopted and forwarded to the Secretary to allow only selective gear to harvest precious corals in the Western Pacific EEZ.

2. How difficult has it been for the councils to meet the deadlines required to comply with the new requirements imposed by the SFA? What tools do the Councils need to better comply with the new requirements?

Difficult and painful are understatements in describing the process the Western Pacific Council endured to address the SFA requirements. The Western Pacific Council's Sustainable Fisheries Act Amendments (amendments were included for the Pelagics, Bottomfish and Seamount Groundfish, Crustaceans and Precious Corals FMPs) were transmitted to NMFS September 18, 1998, prior to Congressional deadlines. The Council was notified by NMFS on February 3, 1999 of the partial approval of the amendment package by the Secretary of Commerce. Disapproved were the bycatch provisions for bottomfish and pelagics, overfishing definitions for bottomfish, pelagics, and crustaceans and the definition of communities for the State of Hawaii.

The primary obstacle in addressing the SFA requirements was NMFS lack of guidance, response and support throughout the amendment development process. NMFS Headquarters was woefully late in providing any guidance needed to prepare the amendments. When guidelines were finally provided, it was done in stages (initial and final) and with last minute changes. This created an environment where the "game rules" were in constant flux.

The level of NMFS technical support in preparing the amendments was not consistent between regions. NMFS Southwest Region Honolulu Laboratory staff provided information and analysis to the Council and its contractors in support of developing the SFA amendments. However, in other regions, NMFS prepared the SFA amendments for the Councils.

Some requirements of the SFA were unrealistic in terms of time, staff and funding resources available and the volume and quality of scientific information that would be required. In particular, MSY and EFH were extremely difficult to address. These provisions were heavily supported by conservation and environmental NGOs who didn't fully understand the inadequacy of using an outdated and discredited concept such as MSY as an index of overfishing or the

quality and volume of information needed to address EFH requirements. As evidence, NMFS is attempting to hold workshops on how best to apply MSY and modifying the EFH provision is one the primary issues discussed in current M-S Act reauthorization hearings.

3. Overly broad identification of essential fish habitat have made it difficult for the Councils to identify specific areas that need to be protected. What specific measures need to be taken to better aid the Councils in identifying and protecting EFH? What action should Councils be taking for themselves? We realize that this question was discussed at the hearing, but if you would care to elaborate please do so.

EFH guidelines ask for what cumulatively results in massive amounts of detailed habitat and life-history/biological data (e.g., current and historic stock size, geographic range, habitat requirements, distribution and characteristics of habitats) for each management unit species (MUS) by life stage (eggs, larvae, juvenile, adult), to refine EFH/HAPC designations. The goal is to have as much information as possible in order to have the most accurate designation. However, for most MUS typically little data exist beyond the first level (presence/absence). The final conclusion in designating EFH boundaries would probably differ little (e.g., EFH is the entire EEZ and HAPC is sensitive areas, usually already known, based on other general information). Huge volumes of additional data tables, at great cost, not only would be difficult to read and summarize, but would probably change the resultant designation boundaries little.

Due to the paucity of data necessary to develop EFH designations based on higher quality data, the Western Pacific Council adopted a precautionary approach in designating EFH based on observed habitat utilization patterns in localized areas.

The NMFS Guidelines on EFH should be relaxed, and made more practicable with regard to data requirements that are unrealistic and not cost-effective and would produce little obvious benefit. For example, such levels of detailed information could be requested only for representative or "indicator species" of ecosystem/habitat health, or for major MUS.

Another option could be to use a more narrow designation of EFH where EFH is confined to habitat areas shown to generate the highest known levels of production, based on observed habitat utilization patterns. However, other information may still be needed to identify sufficient habitat to sustain long-term productivity.

To more specifically identify actual EFH, the Councils need additional funding for research contracts to obtain detailed information on the following: 1) distribution of early life history stages (eggs and larvae) of MUS by habitat; 2) juvenile habitat (including physical, chemical, and biological features that determine suitable juvenile habitat); 3) food habits (feeding depth, major prey species etc.); 4) habitat-related densities for all MUS life history stages; 5) habitat utilization patterns for different life history stages of MUS; and 6) growth, reproduction and survival rates for MUS within habitats.

Progress in this regard is being made by the NMFS Honolulu Laboratory, which has a comprehensive oceanic environmental research program and has conducted cruises in the past year to the Northwestern Hawaiian Islands for resource and habitat assessment and monitoring (NOW-RAMP). However, full evaluation and utilization of this new data will take years (e.g., thousands of hours of underwater video to quantify).

4. It appears the Councils have developed few, if any, measures to minimize damage to habitat that is caused by different types of fishing gear as required by the SFA. What information is needed in order to ensure better compliance with this requirement? Why are these plans being approved?

The EFH guidelines direct Councils to describe and minimize, to the extent practicable, adverse effects on habitat caused by fishing. The predominant fishing gear types—hook-and-line, longline, troll, traps—used in the fisheries managed by the Western Pacific Fishery Council cause few fishing-related impacts to the benthic habitat of bottomfish, crustaceans and precious corals. The current management regime prohibits the use of bottom trawls, bottom-set nets, explosives and poisons. The use of non-selective gear to harvest precious corals in the Main Hawaiian Islands (MHI) is prohibited. The proposed Coral Reef Ecosystem FMP includes a list of allowable gear based on minimizing impact to habitat. WPRFMC has determined that current management measures to protect fishery habitat are adequate and no additional measures are necessary at this time. Potential sources of fishery-related impacts to benthic habitat have also been identified.

Funding is needed to contract research studies to more fully assess fishing activities and fishing gear relative to identifying and evaluating actual and potentially adverse effects on EFH. Contractual work already proposed by the Western Pacific Fishery Council related to EFH and fishing gear impacts include improving GIS maps of the region, impacts of existing fisheries on deep-reef ecosystems, assessment of actual gear selectivity, impact of lobster traps on reef habitat, and determining indicator species to assess ecosystem health.

5. If the Councils are lacking data on bycatch why have they not adopted the "standardized reporting methodologies" to assess the amount and type of bycatch occurring in these fisheries, to provide them with the data they need to reduce bycatch? Obviously existing methodologies must be inadequate, or the data would be available.

Guidance from NMFS indicated that creel surveys, logbooks and observers could all be regarded as "standardized reporting methodologies."

Fisheries in the US Pacific territories are very different from the rest of the US, with most effort occurring by small boat fishermen. This type of regime requires intensive hands-on dockside interviewing and education of the user groups. The Council has worked aggressively to expand these labor intensive efforts and obtain the necessary funding for such efforts, supporting the expansion of creel surveys to many of the smaller boat harbors in our island areas and increased

coverage at the main locations. Information on catch in this Council's fisheries in Guam, American Samoa and the Northern Mariana Islands is routinely collected through these creel survey systems, which required only a minor adjustment to include bycatch questions in the interviews conducted with fishermen as they land their catches. New reporting software is being generated to summarize this data and was reported for the first time in the 2000 annual reports for bottomfish and pelagic fisheries for Guam. It is expected that similar reports will be generated in 2001 for all three areas.

Bycatch reporting has been standard in both longline fisheries under Council jurisdiction since 1994 (Hawaii) and 1996 (American Samoa) through the use of logbooks. Logbooks have been calibrated in Hawaii through an observer program, which have given information on other bycatch such as sea turtles, seabirds and marine mammals. Logbooks have also been used for the Northwestern Hawaiian Islands bottomfish and lobster fisheries which have provision for bycatch reporting. Observers deployed on vessels in both fisheries have provided additional information on bycatch. The Council has steadfastly petitioned for additional funding to expand the longline observer program, which has been the only effective method to gather protected species interactions. Additional funding has only recently been made available to expand this program under a crisis situation.

In 1998, the Council was alerted to fishing within the EEZ which was escaping documentation. A few vessels had recently begun trolling for pelagic species in our remote island areas. The Council immediately initiated an amendment to address this hole in data collection, with an initial draft sent to NMFS in September 1999. A final draft was sent to NMFS in September 2000, but to date, NMFS has taken no action.

The Council is currently working with two digital video observer companies to determine the feasibility of using these catch reporting systems for the NWHI bottomfish fishery to document bycatch levels and potential protected species interactions. These vessels are generally too small to accommodate a human observer with only occasional observer coverage to verify logbook data. Small vessel pelagic and bottomfish fisheries in the main Hawaiian Islands currently do not report bycatch but new daily catch reporting log sheets are being introduced into these fisheries. The Council and the State of Hawaii has recently reinitiated consultation with the Marine Recreational Fishery Statistical Survey to obtain data from this sector.

In summary, it is not obvious that existing methodologies are inadequate for bycatch reporting. In some cases, the Council-initiated data reporting measures anticipated by some years the bycatch requirement under the 1996 reauthorization of MSFCMA. Other reporting measures had only to be modified in relatively modest ways to be in compliance with the new requirements.

6. For those fisheries where bycatch has been reported to have been reduced, is it the case that fishermen are actually minimizing the amount of non-target species that they catch and reducing the mortality of those they do catch, or are they simply retaining the same level of bycatch and implementing some sort of full utilization system, such as turning it

into fish meal.

The main bycatch issue in Western Pacific Regional fisheries is with endangered and protected species caught mainly in longline fisheries. Markets for fish in the Western Pacific Region are premium fresh fish markets and there is no retention and landing for fish meal. Most effort is put into ensuring the long term survival of endangered and protected species caught by longline vessels (see question 1).

In the Hawaii longline fishery, there had been an increase in retention of fishes such as opah (moonfish) monchong (Pomfrets) and escolar (snake mackerel) as new marketing opportunities for these species have opened up. With the exception of blue sharks, which can be as much as 50% of the catch while swordfishing, approximately 5% of the species caught do not have markets currently. Since 1998 the Western Pacific Council has been looking at developing markets for blue shark meat and other blue shark products. The year 2000 ban on shark finning would, under normal circumstances, have greatly increased longline bycatch through the non-retention of sharks which now can not be finned. However the shutting down of one third of the Hawaii longline fleet, which targets swordfish, through litigation and the March 2001 BO, has had the effect of reducing shark, seabird, sea turtle and cetacean bycatch.

Bycatch in other Council fisheries is minimal and the Council determined that there are no incentives to make fishermen reduce these further.

7. The Magnuson Stevens Act; as do most laws, requires that management decisions be made using the best scientific information available. Yet, fishing industry has frequently expressed frustration that this means many fisheries are managed with data that is outdated or inadequate, triggering restrictions they believe may be unnecessary. At the same time, some in the environmental community believe that inadequate data results in too little protection for many fish stocks. What can be done to improve the fisheries data we use to make management decisions? More importantly, what can be done to restore confidence in these biological assessments

This questions asks what can be done to restore confidence in the science which underpins management decisions. There are several factors that impinge directly on the answer to this question

a. System is overburdened to supply needed data

Fisheries science is the study of the dynamics of populations, and requires a huge volume of data to provide meaningful results. The re-authorized MSFCMA massively upped the ante in terms of data requirements because of EFH and the shift to a MSY/biomass based overfishing definition. This overloaded an already overloaded research agency. Added to this is an aggressive anti-fishing agenda-driven environmental community constantly bringing law suits with the concomitant need for NMFS scientists to be reacting to the latest legal challenge or crisis adding again to the workload. Lastly, the agency management is weak and easily bullied by the

environmental lobby and makes decisions usually based on political expediency not science, thus increasing the dissatisfaction of the scientific community within NMFS.

b. Massaging the results
Having the stock assessment and management in the same agency also involves risks. The weakness and malleability under pressure of NMFS leadership may result in pressure on scientists or technical staff to arrive at conclusions not supported by the "best available science" but which are politically expedient. This alienates and marginalizes further the scientific staff within the agency. In attempts to reduce this conflict of interest, the Council has petitioned on many occasions for stock assessments to be conducted or reviewed by an independent panel of experts. The Council has asked that the NWHI lobster stock assessment model be reviewed by an independent panel as well. In addition to this, the Council is working in the international arena (during MHLC and bi-laterally with other nation's fishery laboratories) to both manage highly migratory stocks and pool data for more accurate stock assessments.

c. Whose precautionary approach?
The precautionary approach which is suppose to guide fishery management and avoid management paralysis in data-poor situations is perceived differently by fishery biologists and environmentalists. The fisheries science perspective of the precautionary approach is to fish the stock with some cautionary limit with the fishery performance indicators feeding back into the management process. The environmentalist perspective of the precautionary approach is that no fishing should proceed until enough research has been done to determine what the effects of fishing will be. Clearly this is a conundrum. The Council always supported the flow of data to address all of these problems. The NWHI lobster fishery is a excellent example of how the environmentalist version of the precautionary principle has shut down the fishery, thwarting all data collection. The Council has petitioned NMFS to consider any reasonable alternative to continue tagging studies so the best management decisions can be made.

d. Magnuson Act sidelined
The environmental community have realized that the Magnuson Act and Council process can be bypassed and marginalized through the use of Endangered Species Act, Marine Mammal Protection Act and National Environmental Policy Act. The Department of the Interior now wants to extend the Migratory Bird Treaty Act (MBTA) which would give the environmental community another route to bypass Magnuson. Once these acts are used to bring law suits the "best available science" becomes irrelevant particularly under ESA where jeopardy opinions are a subjective judgement call and the cumulative impacts on listed species beyond the USA are also irrelevant and the purpose of the act is to reduce impacts of federal action and not to effect recovery. This trend also removes the regional aspect and public input of fishery management, a trend the Council finds extremely disconcerting. The Council has and will continue to fight for keeping fishery management out of the courts and with those stake holders most knowledgeable with the issues.

e. Unlevel playing field

The environmental community can use the democratic process such as FOIA in its litigation with NMFS to access all the data and documents it wishes and then use this selectively to spin its own stories. In the courts, this has led to fisheries to be shut down as a direct correlation to the amount of cooperation they have with NMFS, through providing information for management. In our largest fishery, the Hawaii-based longline fleet operates in international waters. These vessels, under the law, are not required to turn on their VMS or carry observers while fishing the high seas. They have cooperated fully because the Council has assured them this data collection is in their best interest. The argument is that this enfranchises fishermen, but at what cost if their fishery is shut down? This is the source of much industry frustration. Also, the ESA directly inhibits fishermen participation in data gathering by not allowing them to handle protected species, place tags, collect specimens or return dead individuals to port for analysis. This Council has fostered much cooperation between the fishermen and the NMFS, and continues to do so with industry-science working groups in all of our fisheries. Under these conditions, the Council has become very wary as to the overall outcome these collaborations will produce.

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