

**REAUTHORIZATION OF THE MAGNUSON-STEVENS
FISHERY CONSERVATION AND MANAGEMENT ACT**

FIELD HEARING
BEFORE THE
SUBCOMMITTEE ON OCEANS AND FISHERIES
OF THE
COMMITTEE ON COMMERCE,
SCIENCE, AND TRANSPORTATION
UNITED STATES SENATE
ONE HUNDRED SIXTH CONGRESS
FIRST SESSION

SEPTEMBER 25, 1999

Printed for the use of the Committee on Commerce, Science, and Transportation



U.S. GOVERNMENT PRINTING OFFICE

71-950 FTP

WASHINGTON : 2002

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512-1800; DC area (202) 512-1800
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ONE HUNDRED SIXTH CONGRESS

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**REAUTHORIZATION OF THE MAGNUSON-
STEVENS FISHERY CONSERVATION AND
MANAGEMENT ACT**

SATURDAY, SEPTEMBER 25, 1999

U.S. SENATE,
SUBCOMMITTEE ON OCEANS AND FISHERIES,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Portland, ME.

The Subcommittee met, pursuant to notice, at 9:30 a.m. at the Portland City Hall, 389 Congress Street, Portland, Maine, Hon. Olympia J. Snowe presiding.

Staff members assigned to this hearing: Sloan Rappoport, Republican counsel; Stephanie Bailenson, Republican professional staff; Margaret Spring, Democratic senior counsel; and Steve Kozak, Senator Kerry's staff.

**OPENING STATEMENT OF HON. OLYMPIA J. SNOWE,
U.S. SENATOR FROM MAINE**

Senator SNOWE. The hearing will come to order. Good morning, everyone. First of all, let me welcome all of the witnesses who will be participating here today, and I want to thank all of you for your attendance on a Saturday morning. I know many of you have driven long distances and I really appreciate the fact that you're here.

I want to say at the outset that you are a part of this hearing. There's nothing more valuable to me in this process than to have your feedback and I want you to know that your input is going to have an impact at every stage of this reauthorization process. So with that, I want to thank you again for your involvement today. I look forward to working with you in the weeks and months ahead.

You know, in 1995 when the Subcommittee on Oceans and Fisheries came to Maine during the reauthorization of the Magnuson Act, we held a hearing at the Maine Fishermen's Forum. I had said at the time, that I hope the tradition of coming to our state would continue when the Subcommittee considered future legislation, and a funny thing happened on the way to reauthorization.

Now I'm the one with the gavel, so wouldn't you know it that Maine just happened to be the first place that popped into my mind to have one of these hearings. I couldn't think of a more appropriate place to start with what will be the most significant item before the Oceans and Fisheries Subcommittee in the 106th Congress. As you well know, the Magnuson-Stevens Act is the principal

Federal law governing marine fisheries management, and today we will continue what is sure to be an exhaustive review of this law and its implementation.

I know from the many discussions I've had with those in the fishing community that there are some very specific and legitimate concerns with the way the law is being implemented. The Sustainable Fisheries Act of 1996 made significant changes to the objectives of the Magnuson-Stevens Act, the most substantial of which was to end overfishing and restore overfished fish stocks. How that mandate has been implemented is a topic of great concern to a variety of different groups and certainly to me. As we make this assessment, we must naturally look at the activities of the regional councils—and the National Marine Fisheries Service—those entities that carry out the law.

Our witnesses today include Maine representatives on the New England Council who will be able to give us a first hand report about the level of success the Council has had in fulfilling this challenge.

When the last reauthorization was enacted, one of the goals was to determine the appropriate level of catch to maximize the benefit to the Nation while at the same time protecting the long-term sustainability of fisheries.

Needless to say this is a delicate balancing act at best, one that must take into account the competing interests of commercial and recreational fisherman and others who wish to conserve our marine resources. Knowing that management measures would be necessary in a variety of fisheries, the councils and NMFS were also told to increase their emphasis on the measures that might best sustain traditional small scale fishermen. Why? Because just as we preserve the fish, we must also remember to preserve the fishermen.

However, in the years that have followed, there have been numerous criticisms of NMFS and the Council for not taking adequate steps to address financial hardships that management measures will inevitably cause. Indeed, I've spoken with many of you about the recent actions of the New England Council concerning groundfish management. Time and again I have heard that the Council and NMFS are not listening to your concerns and not considering the socio-economic impacts that these measures have had. I want you to know that I've listened and this forum will provide us all an opportunity to let NMFS know first-hand the full effect that their decisions have had on fishermen and the fishing communities.

Minimizing the economic impact of management measures was something I fought to include as a national standard during the last reauthorization in 1996. Recognizing that many of you did not feel that NMFS and the Council were fulfilling that requirement, Senator Breaux and I called on the General Accounting Office to investigate this matter. I'd like to thank all of you who spoke with representatives from GAO when they were here in July. We will certainly be discussing this issue further today.

The final paradigm shift incorporated in Sustainable Fisheries Act are the provisions to minimize bycatch and to restore and protect fish habitat. Based on concerns that certain fish stocks had de-

clined due to a loss of their surrounding habitat, the Act established a national program to facilitate long-term protection of essential fish habitat. Many have argued that these provisions have not been properly implemented, and we will be discussing these problems with our witnesses as well today.

There is no doubt that fisheries are very important to many states and to the Nation as a whole. In 1998 commercial landings by U.S. fisherman were over 9.2 billion pounds of fish and shellfish, worth \$3.1 billion. Further, the recreational fishing catch was 195 million pounds. I'm very proud to say that in 1998 for the fifth year in a row Maine has led the Northeast with total fishing revenues valued at \$277.4 million. This is an increase of \$5.1 million from 1997. Over 22,000 men and women in Maine are employed by various fishing industries, and they all deserve to have fisheries managed well and their livelihood secure.

The regional councils were established to allow fisheries management to occur at the local level. This is where difficult management decisions need to be made and must involve the people whose daily lives depend on continued access to these resources.

Today we will hear testimony about breakdowns in the public process that have led to the adoption of less than adequate management measures. We will also have the opportunity to discuss ways to broaden participation of all levels of management including the science that drives these decisions.

Let me conclude my remarks by saying those most effected by the law believe the Act is too rigid, it is not being implemented properly by NMFS, and that contrary to its mandate, the best science is not being used in management. Under the Magnuson-Stevens Act, we should make sure that sustainable fishing and good management becomes the norm and not the exception. During this reauthorization process, we should strive to restore healthy fisheries and healthy fishing communities.

Clearly this reauthorization will have major implications for the future of marine fisheries in the United States and certainly here in Maine, and this is your chance to have your voice heard.

Before I conclude my remarks, let me raise one specific issue that has affected all of us and that is the New England Council seat. Frankly, I was shocked that when the Secretary of Commerce announced that he had given one of our seats to our neighboring state. That this administration would arbitrarily reduce Maine's representation on the Council at such a critical time flies in the face of reason. Today I want to assure you that I am going to do all that I can to restore a seat on the Council so that we can have two at-large seats. I'm making progress toward correcting that mistake by offering an amendment to the Department of Commerce appropriations bill. The amendment creates an additional at-large seat and now the bill is in conference committee, and we're working very hard with the Secretary and with other Members of both the House and Senate on the committee to ensure that the provision is retained in the final bill.

I am not going to stop fighting for the representation that Maine so richly deserves and has had throughout the history of this Act, and I'm going to make sure we do everything we can to preserve that.

Again, I want to thank all of you for your participation. Let me just say that this is the beginning of the process; it's not the end of the process, that's for sure, and I want you to continue to provide input. I will be conducting other hearings across the country so that we can begin next year with the reauthorization and develop the legislation. So, I would hope that you would feel that you can always give me additional comments above and beyond this hearing in the months ahead.

So now I would like to welcome the first panel here this morning, and before I introduce the panel I would like to introduce my staff. Sloan Rappoport, Stephanie Bailenson, and Rick Kenin are with the Subcommittee on Oceans and Fisheries and have come here from Washington, as well as Dave Lackey from my DC office. Charlie Summers from Portland is here, and Cheryl Lehman is also from Portland and on the City Council, and she arranged the use of this room. So I want to thank all of them for their assistance this morning.

OK, let us begin. I would like to welcome George Lapointe who is the Commissioner of the Maine Department of Marine Resources. I want to welcome you, George, to the hearing. Thank you for testifying. This is the first time that you've appeared before this Subcommittee in your current capacity, and I look forward to your input.

Our next witness will be Ms. Penny Dalton, Assistant Administrator of the National Marine Fisheries Service. Penny, welcome back to Maine. I understand Pat Kurkul will be accompanying Ms. Dalton. Ms. Kurkul is the head of the Northeast NMFS regional office, and we thank you as well for being here. This is not Penny's first visit to Maine, but it's her first appearance before the Subcommittee in Maine in her official capacity. She's been to Maine in a different capacity when she worked for this committee before, but she has also recently been working on another issue in Maine. I know that your testimony will be valuable because of your familiarity with the issues and we're pleased that all of you could join us here today.

Mr. LAPOINTE. Good morning.

Senator SNOWE. Good morning.

**STATEMENT OF GEORGE D. LAPOINTE, COMMISSIONER,
MAINE DEPARTMENT OF MARINE RESOURCES**

Mr. LAPOINTE. Senator Snowe, my name is George Lapointe, I'm the Commissioner of Marine Resources in Maine. Before I start I would like to send Governor King's regards for your past work on marine resources issues and for your hearing here today. I'd also like to thank your staff because, they have in my 1 year on the job, been incredibly helpful with issues and getting information.

I've begun discussing with people up and down Maine's coast what they think about implementation of the Sustainable Fisheries Act. The discussions have resulted in the concerns that will be raised with the Committee today. They are the pace of the management process, the socio-economic impacts of fisheries management, state and Federal issues, essential fish habitat, data informational needs, and the single species management approach.

Under the management process, the management process devised to implement the Sustainable Fisheries Act is one that simply can't be maintained. The biological targets, rebuilding of schedules, and required annual review of plan performance have resulted in a near continuous set of discussions, meetings, reviews of information and Council actions, and this is difficult to keep track of for people who are in the management process such as myself, so imagine how difficult it is for fishermen or members of the public to try to figure out what's going on and to comment in a knowledgeable manner.

A democratic process with meaningful public input can't be maintained with this pace of activity. The pace of activity of the management process has also generated an ugly atmosphere in New England where Council meetings have become so hostile that people are reluctant to attend meetings. The damper effect of this kind of behavior of the democratic process and public input can't be overemphasized.

The Council process simply will fail if this trend continues. To the credit of the leadership at the New England Council, they recognize that something must be done to make Council meetings work openly, safely and fairly, and I'm confident that they will address this issue forthrightly, but we must also monitor how the Council's function in this regard to allow all views to be aired in the management process.

National Standard 8 of the Magnuson Act states that fishery management must take socio-economic impacts into account with emphasis on impacts on communities. To implement this National Standard adequately requires resources not currently allocated to the States, the Council or the National Marine Fisheries Service. I think this is a critical issue because impacts of fisheries management on fisheries and coastal communities has been enormous. In Maine, we used to have 30 ports that landed groundfish; we now have less than ten. Less ports means less boats; less boats means less jobs and less fish. Less jobs and fish means less support industries. So this is a critical issue for us to address.

On state and Federal issues I believe that the ever increasing requirements of the Sustainable Fisheries Act have eroded the states' abilities to manage their fisheries. The states individually and collectively through the Atlantic States Fisheries Commission I think should be better recognized in the Federal management arena for their roles and capabilities.

On essential fish habitat, implementation of the Sustainable Fisheries Act has raised concerns about how essential fish habitat is defined, how Council's comments on activities in areas of essential fish habitat and most importantly probably how the designation of essential fish habitat will be used in the future. The potential impact of essential fish habitat designation on Maine and Maine's economy is great, and I think that the implementation of essential fish habitat provisions of the Sustainable Fisheries Act must be clarified to address this type of concern.

On data and information, the amount of information needed to implement the fishery management process envisioned under the Sustainable Fisheries Act is staggering, whether we're talking about biological data or socio-economic data. Lack of resources to

address critical issues and questions make implementation of the Sustainable Fisheries Act very difficult, if not impossible.

One good trend we see in data collection that I hope will continue, and we should encourage under the Act, is the cooperative research involving the fishing industry. I think this is an incredibly good trend from the perspective of the amount of research we can do and gaining a better understanding of data needs and research needs by the fishing communities.

My last point is about single species management. The approach to management of marine fisheries under the Sustainable Fisheries Act is largely one of single species management. The application of a single species management through the use of maximum sustainable yield for all species results in the impossible situation of trying to keep many species at high levels of biomass at the same time.

Past work done in the Gulf of Maine demonstrated that the amount of biomass that can be supported is limited by the amount of sunlight falling on the area. This work suggests that the notion we can manage for high concurrent abundance of all species is simply wrong. I think the reauthorization of the Sustainable Fisheries Act is coming at a critical time where we can make decisions that will make the Act work better by addressing these concerns. Currently, implementation of the Sustainable Fisheries Act is eroding the ability of Maine's commercial fishing industry to support the economic base of our coastal communities.

The reauthorizations of the Sustainable Fisheries Act provides the opportunity to address these issues that I have discussed today and I look forward to working with you to improve the Act so we can achieve our conservation goals without killing our fishing communities and industries. Thanks very much, and I'd be happy to answer any questions you have.

[The prepared statement of Mr. Lapointe follows:]

PREPARED STATEMENT OF GEORGE D. LAPOINTE, MAINE COMMISSIONER OF MARINE RESOURCES

Senator Snowe and members of the Subcommittee on Oceans and Fisheries, my name is George Lapointe, Commissioner of Marine Resources for the State of Maine. Governor King sends his regards to the Subcommittee for your past work on the management of our Nation's marine resources. The Governor believes that the Gulf of Maine is one of Maine's natural competitive advantages and that sea has been part of Maine's heritage for nearly the past 400 years and, equally important, will be part of our future for the next 400 years. Last year, Maine's fisheries resources had the top value of any state in the northeastern United States and supported over 20,000 license holders.

I am glad that the Subcommittee has come to Portland to hear how the implementation of the Sustainable Fisheries Act is going because there are a number of issues related to the Sustainable Fisheries Act that may hinder our ability to make the best use of Maine's sustainable marine fisheries resources. For Maine, this means managing fisheries in a manner that results in sustainable fisheries and sustainable communities.

I have begun discussing with people up and down the coast how they think the implementation of the Sustainable Fisheries Act has been going. These discussions are the basis of the concerns that I will raise with the Subcommittee. The State of Maine would be pleased to further explore these and other ideas with the Subcommittee as the reauthorization process continues. The issues are:

1. *Pace of the management process*—The management process that has been devised to implement the Sustainable Fisheries Act is one that cannot be maintained.

2. *Socio-economic impacts of fishery management*—National Standard 8 states that fishery management must account for socioeconomic impacts. To implement National Standard 8 requires resources not currently allocated to the Councils or National Marine Fisheries Service.
3. *State/Federal issues*—The States should be better recognized in the federal management arena for their roles and capabilities.
4. *Essential fish habitat*—The implementation of the Sustainable Fisheries Act have raised concerns about how Essential Fish Habitat is defined and how the designation of Essential Fish Habitat will be used in the future.
5. *Data, information*—Lack of resources at the state, council, and federal levels to address critical issues and questions makes the implementation of the Sustainable Fisheries Act very difficult.
6. *Single species management approach*—The application of single species management through the use of maximum sustainable yield (MSY) results in the impossible situation of trying to keep many species at high levels of biomass at the same time.

Management Process—The management process that has been devised to implement the Sustainable Fisheries Act is one that simply cannot be maintained. This is the result of a number of actions and issues. The biological targets, rebuilding schedules, and required annual review of a plan's performance has resulted in a near continuous set of discussions, meetings, reviews of information, and regional fishery management council actions. With the New England Fishery Management Council Multispecies (groundfish) Fishery Management Plan we are currently discussing Amendment 13 and Framework 31! I believe that we have had work on five framework adjustments in 1999. This is difficult to keep track of for people who work on management issues full time. Imagine how difficult it is for fishermen or members of the public to figure out what's going on and try to comment in a knowledgeable, efficient matter. A democratic process with meaningful public input cannot be maintained with this pace of activity.

It is important to note that this pace does not allow time for thorough discussions of management alternatives. Most people will argue that the current groundfish management system should be changed but the deadlines and meetings with the current management process take so much time and effort that discussion of alternatives is not given enough time.

For Maine fishermen, we have not only the issue of the pace of discussions but where the discussions occur. For many of our fishermen to participate in a one day council meeting takes two or three days because of the distances involved. People in Eastport or Cutler have a long trip to get to Augusta so when they have to go to Massachusetts it becomes a major commitment of time and money.

The pace of the management process has also generated an ugly trend here in New England where Council meetings have become so hostile that people are reluctant to attend the meetings. The damper effect of this kind of behavior on the democratic process and public input cannot be overemphasized. The Council process will fail if this trend continues. The leadership of the New England Fishery Management Council recognizes that something must be done to make Council meetings work openly, safely, and fairly. I am confident that they will address the issue forthrightly but we must all monitor how the Councils function in this regard to allow all views to be aired in the management process.

Socio-economic impacts of fishery management—National Standard 8 states that fishery management must, consistent with conservation objectives, take socioeconomic impacts into account with an emphasis on impacts on communities. To implement this National Standard adequately requires resources not currently allocated to the states, councils or National Marine Fisheries Service. Taking account of the human side of the fisheries ecosystem is as complex and difficult as trying to figure out the biology of a fish species. To do this correctly means that the management system must be modified to give the time and resources needed to get this information. The current system comes nowhere close to conducting this type of analysis, resulting in discussions of socioeconomic impacts that are virtually nonexistent or are incomplete.

I believe that this is a critical issue because the impacts of fisheries management—state, council, and federal—on fisheries and coastal communities have been enormous. For example, groundfish fishing in eastern Maine is virtually eliminated when compared to past decades. We used to have over 30 ports that landed groundfish; we now have less than 10. Less ports means less boats, less boats means less jobs at sea and shore side. Less fish means less support industries. The management process has vastly reduced people's abilities to switch into other fisheries,

which further erodes their ability to make a living and the ability of communities to survive economically as fishing ports.

State/Federal issues—I believe that the ever increasing requirements in the Sustainable Fisheries Act have eroded states' ability to manage their fisheries. The states, individually and collectively through the Atlantic States Marine Fisheries Commission, should be better recognized in the federal management arena for their roles and capabilities. The continuing discussion on lobster management in federal waters is a good example of this. A number of years ago, a decision was made to have lobster management rest with the states, and rightly so, because nearly 80 percent of lobster landings occur in state waters. Maine, and the other states of the Atlantic States Marine Fisheries Commission, prepared Amendment 3 to the Lobster FMP that was completed in December 1997. The role of the National Marine Fisheries Service is to prepare regulations that complement the ASMFC plan. We are still waiting for those regulations and earlier versions have contained some provisions that undermine the state management process.

Recent discussions of the New England Fishery Management Council about the management of Northern shrimp provide another example. The shrimp management process through the states has been very responsive to both resource condition and the needs of fishermen. In addition, the annual season setting process uses data two months (not years) old. The federal management process needs to recognize the ability and track record of the states as a viable alternate method of meeting national management goals.

Essential fish habitat—Implementation of the Sustainable Fisheries Act has raised concerns about how Essential Fish Habitat is defined, how the Councils will comment on activities in areas of Essential Fish Habitat, and how the designation of Essential Fish Habitat will be used in the future. The potential impact of Essential Fish Habitat designation on Maine's economy is great.

The most illustrative example of this concern is for Atlantic salmon. The New England Fishery Management Council has designated 11 watersheds in Maine as Essential Fish Habitat for salmon, an area that comprises about 50 percent of Maine's land area. The Land and Water Resources Council in Maine, made up of agencies with natural resources responsibilities, is very concerned about how the Essential Fish Habitat designation, and future use of this designation, could impact nearly every activity in this very large land area.

There is also concern about Essential Fish Habitat designations in marine waters where the presence or absence of eggs, juveniles, and adults of a species define the essential habitat. This ubiquitous definition is so broad that it is nearly meaningless.

Everyone realizes that fish must have good habitat to survive and that fisheries management has not taken fish habitat into account as an integral part of the management process. However, the implementation of the Essential Fish Habitat provisions of the Sustainable Fisheries Act must be clarified to address these concerns in a thoughtful, focused manner.

Data, information—The amount of information needed to implement the fishery management process envisioned under the Sustainable Fisheries Act is staggering, whether you're talking about biological or socioeconomic data. Lack of resources at the state, council, and federal levels to address critical issues and questions makes the implementation of the Sustainable Fisheries Act very difficult if not impossible.

A serious consequence of the lack of data is an increasing reliance on the use of the precautionary principle. In the past, fisheries management did not act without sufficient data with which to make decisions. Understanding that we will always have unanswered questions, this past behavior did not pass a straight face test. Implementation of a management system with a reliance on the precautionary principle without a plan to fill these data gaps also does not pass a straight face test.

The logical future implementation of the Sustainable Fisheries Act must be accompanied by a concurrent biological and socioeconomic research program and a more balanced approach to using the precautionary principle.

A good trend that we've seen in data collection over the past few years is cooperative research with the fishing industry. Two significant advantages of this trend are cost effective data and a greater understanding of the data by the fishing community—because they took part in gathering the information. The cooperative herring research prioritization and data collection in Maine's herring industry provides a great example of this type of effort. Work with the fishing industry to help fill these information gaps should be encouraged.

Single species management approach—The approach to management of marine species in the Sustainable Fisheries Act is largely one of single species management. The application of single species management through the use of maximum sustainable yield (MSY) for all species results in the impossible situation of trying to keep

many species at high levels of biomass at the same time. Past work done in the Gulf of Maine demonstrated that the amount of biomass that can be supported is limited by the amount of sunlight falling on the area. This work suggests that the notion we can manage for concurrent, high abundance of all species is simply wrong.

Multispecies or ecosystem management is the direction to head in to correct this situation. I think, however, that implementing ecosystem management is going to require much more information than we currently have available. A potential solution would be to allow a prioritization of which species would be managed for high abundance and which species would be managed for lower abundance.

An absolutely grave consequence of single species management has been the pitting of fishermen against fishermen, community against community, and state against state in the struggle to meet fishery management plan objectives. This competition benefits nobody in the fishing community.

SUMMARY

I think that this reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act is coming at a critical time where we can make decisions that make the Act work better by addressing some of these concerns. Or, we can use the reauthorization to further restrict our ability to manage with balance and the input of affected communities. Currently, implementation of the Sustainable Fisheries Act is slowly eroding the ability of Maine's commercial fishing industry to support the economic base of our coastal communities. Here in Portland, Maine's largest commercial fishing port, we have been struggling to sustain the infrastructure necessary to maintain a viable groundfish fishery. Further up the coast, fishermen do not have the opportunity to fish for groundfish. These communities are all struggling for the survival of working waterfronts and of fishing families.

It is important to note that folks in Maine want good fisheries management because they know that you've got to have fish to have good fisheries. However, they have been subjected to further and further restrictions by the NMFS as they attempt to comply with the provisions of Sustainable Fisheries Act. This leads to an inability of fishermen to plan for the future of their business and the future of their family. Fishermen are feeling demoralized and frustrated by the incremental, constant change they are forced to adjust to. Much of this is because of an inability to process all of the information and actions that confronts them. Maine's fishermen are willing to make tough choices when they understand what they are trying to accomplish. The work of Maine's fishing community in crafting the Maine alternative during last year's work with Framework 27 to the groundfish fishery management plan is a good example. Although the Council did not accept the Maine proposal, Maine's fishermen put together a tough proposal that would have gotten the job done of protecting Gulf of Maine cod. However, if they do not understand the basis for management or the information used in management, they are unlikely to support tough choices.

The reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act provides the opportunity to address the issues that I have discussed today. I look forward to working with Senator Snowe and other members of the Subcommittee to improve the Act so that we can achieve our conservation goals without killing our fishing communities and industry. We are one Maine coast with one marine resource base that must be managed in a way that provides for sustainable Maine communities.

Senator SNOWE. Thank you very much, Commissioner. Ms. Dalton.

STATEMENT OF PENELOPE DALTON, ASSISTANT ADMINISTRATOR FOR FISHERIES FOR THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION; ACCOMPANIED BY PAT KURKUL, NORTHEAST NMFS REGIONAL OFFICE

Ms. DALTON. Good morning, Madam Chairman. Thank you for inviting me to Portland to testify on the Magnuson-Stevens Fishery Conservation and Management Act and on issues of concerns to New England fishermen. I'm Penny Dalton, Assistant Administrator for Fisheries for the National Oceanic and Atmospheric Administration. With me today is Pat Kurkul, our Northeast Regional

Administrator. I would also like to say, based on your comments earlier, that it still is very odd to be on this side of the table.

New England fisheries are a valuable national resource. In 1998 New England fishermen harvested close to 600 million pounds of fish, producing almost \$540 million in dockside revenues. While the seafood industry makes a substantial contribution to the Northeastern economy, current harvest levels are a fraction of the estimated long term potential yield. We at NOAA Fisheries are working to rebuild New England's fish stocks so that they can eventually support a \$1 billion industry.

Our scientists estimate that we can increase U.S. catches by up to 3 million metric tons nationally by rebuilding all fisheries and harvesting them at the long term potential yields. From a regional perspective, consider the following: 5 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 historic lows. Gulf of Maine haddock was declared commercially extinct.

Since then, some traditional fishing grounds on Georges Bank have been closed year round and days-at-sea allocations cut in half. Such management measures put in place to reverse the declines now are starting to pay off, and we are beginning to see signs of recovery. Stock assessments released on July 30 by NOAA Fisheries indicate that there is good news for several stocks, not necessarily that there are a lot more fish of harvestable size, but that the mortality caused by fishing is lower and the fish left in the water are getting larger. In a few cases there are actually more fish.

There are incidents of large numbers of young fish coming into the haddock stock. The 1998 year class is the largest in the past 20 years. One Cape Cod fisherman told a NOAA Fisheries scientist that the 1999 haddock harvest by the Cape Cod hook fleet was the best in 30 years. The situation has also improved for Georges Bank cod where stock biomass has increased 43 percent above 1995's record low 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, summer flounder is well on its way to recovery. We've seen good recruitment and the doubling of the spawning stock biomass since 1995. Despite these positive signs, for other fish stocks we are still in the early stages of our transition to sustainable fisheries. The Gulf of Maine cod situation remains particularly troubling. Fishing effort has been reduced, but cod mortality is still two to three times what it needs to be to promote recovery. For cod populations on both the Gulf of Maine and Georges Bank, recruitment remains a problem.

We have not had a good cod year class in many years. I realize that the management measures for Gulf of Maine cod this year have been problematic. I hope that together working through the Council we can find a better way to fulfill our conservation goals without the high cod bycatch and low trip limits experienced this year.

While realizing that some stocks have a long way to go, we can be cautiously optimistic. We must protect the gains, focus on improving yields over the long term, and identify additional measures that would move depleted stocks toward recovery. It is clear that fish management can work. When we reduce mortality, biomass increases and at some point when nature cooperates, good year classes enter the fishery.

However, we must remain cautious as we face the challenges before us. We must maintain management plans that work, adjust our course where plans are not effective, and minimize, to the extent possible, the impacts on communities and the fishing industry as we make the transition to sustainable fisheries.

The Magnuson-Stevens Act provides the national framework for conserving and managing the wealth of fishery resources from within U.S. Federal waters. In 1996 Congress ushered in a new era in fisheries management, making significant revisions to the Magnuson-Stevens Act and the Sustainable Fisheries Act to address a number of conservation issues. The resulting amendments have had far reaching effects on recreational and commercial fishing, and on fishermen, their families, their communities, in New England and around the country.

The agency is continuing to work to ensure that SFA requirements are implemented and that conservation and management measures fully protect the resource and provide for the needs of fishing communities in the nation. The effects of changes made by Congress in 1996 will take years, perhaps decades, to realize and a great deal of work remains to be done. However, I believe that we are laying a strong foundation for the future of fisheries management.

One key to the success of future management efforts is investment of adequate resources to the scientific and technical aspects of our work. We must also focus on building consensus with the public and among various stake holders. Public involvement and understanding of the process is crucial to developing national plans that will move us toward the goal of healthy fisheries.

In the interest of time, I have provided a detailed discussion of the agency's implementation of actions and the statement I have submitted for the record. We are still working to understand and effectively implement the changes in management policies and procedures made by the SFA. Consequently, we will not propose major changes to the Act at this time.

However, we have established an internal task force that has identified some revisions that may be useful to make the management process more efficient and resolve some relatively minor problems. These revisions are discussed in my written statement. In addition, we look forward to working with you and other Congressional members on high priority issues, such as observer programs, funding, and fee authorities, and improving collection of economic information.

We will continue to work closely with the fishermen, the Councils, and our stake holders to resolve problems affecting the nation's fisheries. Madam Chair, I would like to conclude by recognizing the support and guidance provided by the Northeast Congressional Delegation during this difficult rebuilding process, and

in particular your role as Chair of the Committee responsible for fisheries management throughout the United States. I look forward to working with you to restore the health of fish stocks, the fishing industry, and coastal communities that are part of the New England heritage. I'd be happy to answer any questions.

[The prepared statement of Ms. Dalton follows:]

PREPARED STATEMENT OF PENELOPE DALTON, ASSISTANT ADMINISTRATOR, NATIONAL MARINE FISHERIES SERVICE, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, U.S. DEPARTMENT OF COMMERCE

Madame Chair and members of the Subcommittee, thank you for inviting me to Portland to testify on implementation and reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), and to speak on issues of concern to New England fishermen. I am Penny Dalton, Assistant Administrator for Fisheries for the National Oceanic and Atmospheric Administration.

BUILDING A FOUNDATION FOR SUSTAINABLE FISHERIES—NEW ENGLAND

As you know, the fisheries off New England shores are a valuable national resource. In 1998, New England commercial fisheries harvested close to 595 million pounds of fish, producing almost \$540 million in dockside revenues. While the seafood industry makes a substantial contribution to the Northeastern economy, current harvest levels are a fraction of the estimated long-term potential yields from these fisheries. We at NOAA Fisheries are working to rebuild to New England's fish stocks so that eventually they could sustainably support a billion dollar industry. Consider the following—five 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. From the fisherman's perspective, times are rough for nearly everyone. Some traditional fishing grounds on Georges Bank have been closed year-round for five years now, and days-at-sea were cut in half.

Yet these management measures are starting to pay off, and we are beginning to see signs of a recovery. Stock assessments released July 30 by the National Marine Fisheries Service 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 is the largest in the past 20 years. One Cape Cod fisherman told a NOAA Fisheries scientist that 1999 haddock harvests by the Cape hook fleet were the best in 30 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. This summer, scallopers were able to return to a closed area off of Georges Bank, in what may be the beginning of a "crop-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. Benefits to scallop stocks from closing portions of Georges Bank appear to be so significant that we may not have to impose additional reductions on days-at-sea scheduled for the scallop fleet this year.

Despite these positive signs, for other fish stocks we are still in the early stages of our transition to sustainable fisheries. The Gulf of Maine cod situation remains particularly troubling. Fishing effort has been reduced, but cod mortality is still two or three times what it needs to be to promote a recovery. For cod populations on both Gulf of Maine and Georges Bank, recruitment remains a problem. We have not had a good cod year class in many years.

While realizing that some stocks have a long way to go, we can be cautiously optimistic. We must protect the gains some fish stocks have made, focus on improving yields over the long-term, and identify additional measures that would move depleted stocks toward recovery. It is clear that fish management can work. When we

reduce mortality, biomass increases and at some point, when nature cooperates, good year classes enter the fishery. However, we must remain cautious as we face the challenges before us. We must maintain management plans that work, adjust our course where plans are not effective, and minimize to the extent possible the impacts on communities and the fishing industry as we make the transition to sustainable fisheries. I appreciate the commitment of members of the Northeast delegation and New England fishing communities to this transition. I look forward with you to restored fish stocks that support a vibrant fishing industry and healthy coastal economies that once were a New England tradition.

BUILDING A FOUNDATION FOR SUSTAINABLE FISHERIES—THE NATIONAL OUTLOOK

As we approach the close of the 20th Century, we are at a crucial point in fisheries management, with considerable work ahead of us. In the 23 years since the enactment of the Magnuson-Stevens Act, we have seen the complete Americanization of fisheries in federal waters, the expansion of the U.S. fishing industry, declines in many fishery resources, and the rise of public interest in fisheries issues. We have seen some successes from our management actions, including the initial rebound of a few depleted stocks like Georges Bank haddock, the rebuilding of Atlantic king mackerel, and the continued strong production of fish stocks off Alaska. However, 12 percent of U.S. living marine resources are overfished or are approaching overfished, 24 percent are not overfished, and there is another 64 percent whose status is unknown. And in New England, the percentage of overfished stocks in 1998 was approximately 40 percent. Yet, recovery is certainly possible as we know from recent successes in the Georges Bank scallop fishery. Scientists estimate that we could increase U.S. fishery landings by up to 3 million metric tons by rebuilding fisheries and harvesting them at long-term potential yields.

The Magnuson-Stevens Act, of course, provides the national framework for conserving and managing the wealth of fishery resources found within the 197-mile-wide zone of Federal waters contiguous to the United States. Over the years, it has changed and evolved through several reauthorizations. In 1996, Congress ushered in a new era in fisheries management, making significant revisions to the Magnuson-Stevens Act in the Sustainable Fisheries Act (SFA). The SFA addresses a number of conservation issues. First, to prevent overfishing and rebuild depleted fisheries, the SFA caps fishery harvests at the maximum sustainable level and requires fishery management plans to rebuild any overfished fishery. NOAA Fisheries now reports annually on the health of marine fisheries and identifies fisheries that are overfished or approaching an overfished condition. Second, the SFA refocused fisheries management by emphasizing the need to protect fisheries habitat. To enhance this goal, the SFA requires that management plans identify habitat that is necessary to fish for spawning, feeding or growth. The new law also clarifies our existing authority to comment on Federal actions that affect essential fish habitat. Third, to reduce bycatch and waste, the SFA adds a new national standard requiring that conservation and management measures minimize bycatch and the mortality of bycatch that cannot be avoided. It also calls for management plans to assess bycatch and to take steps to reduce it.

The new conservation requirements may have far-reaching effects on recreational and commercial fishing and on fishermen, their families and communities in New England and elsewhere around the country. To address this concern, the SFA establishes a new national standard 8 that requires, consistent with conservation objectives, that fishery management plans ensure sustained participation of fishing communities and minimize adverse impacts. In addition, a national standard has been added on promoting the safety of human life at sea. Finally, the SFA provides a number of new tools for addressing problems relating to the transition to sustainable fisheries, including amendments to provide for fisheries disaster relief, fishing capacity reduction programs, vessel financing, and grants and other financial assistance.

IMPLEMENTATION OF THE SUSTAINABLE FISHERIES ACT

NOAA Fisheries takes seriously its new mandates under the SFA. We are continuing to work to ensure that SFA requirements are implemented, and that conservation and management measures fully protect the resource and provide for the needs of fishing communities and the Nation. A great deal of work remains to be done. We are laying a better foundation for future fisheries management, yet the benefits of the changes made by Congress in 1996 will take years, perhaps decades, to realize. In addition, the management decisions that we face are becoming ever more complex and contentious, and good solutions are hard to come by. We need to direct resources and effort to the scientific and technical aspects of our work. We

also must build consensus with the public and among various stakeholders to facilitate progress in developing management programs that will move us toward the goal of healthy and sustainable marine resources.

The SFA imposed a deadline of October 11, 1998 for amendments to each of the 39 existing fishery management plans to implement its changes. Despite the Councils' best efforts, there were some proposed amendments that did not satisfy the requirements, for which the analyses were inadequate, or that did not minimize socio-economic or environmental impacts to the extent possible and achieve management objectives. NOAA Fisheries disapproved or partially approved those amendments and is working closely with the Councils to improve them, particularly in the areas of assessing social and economic impacts, rebuilding overfished stocks, minimizing bycatch, identifying and protecting fish habitat, and improving the scientific basis for management. I will outline some of the work we are doing in each of these areas:

Social and economic analysis—One of NOAA Fisheries' highest priorities is to improve our social and economic analyses. These analyses are required by a number of laws in addition to the Magnuson-Stevens Act, including the Regulatory Flexibility Act, the National Environmental Policy Act (NEPA), and Executive Order 12866. The requirement of the Magnuson-Stevens Act to include a fishery impact statement, and the new standard on fishing communities, also make clear our mandate to consider the social and economic impacts of any management program. This consistently has been an important part of the decision-making process and has affected our choice of fisheries conservation and management actions. For instance, here in New England, the New England Council and NOAA Fisheries decided to phase in the days-at-sea program over two years instead of one in the Northeast multispecies fishery, because of concerns that fishermen could not weather such a sudden decrease in effort. Similarly, the fishery management regulations that curtail the monkfish fishery, will be implemented incrementally to end overfishing over three years to delay their economic impact. Further delays in ending overfishing, however, would threaten the ability to rebuild monkfish within the statutory 10 year period.

To strengthen our social and economic analysis capabilities, we will issue revised Regulatory Flexibility Act guidelines to our employees at the end of the year, hire more economists, and work with other Federal agencies and states to improve our data collection. As a result, economic, social, and biological considerations will be better integrated to assist fisheries managers in making the best possible decisions to balance conservation, the fishing industry, and community needs.

Rebuilding overfished stocks—NOAA Fisheries is committed to ending overfishing and rebuilding stocks. This has proven to be a very difficult task, in part because of the complex biological structure of fisheries and complicated calculations of maximum sustainable yield, and other fishery parameters. However, initial signs of recovery have been observed for some New England fish stocks under rebuilding programs begun before the SFA was enacted. For example, the adult stock biomass of Georges Bank haddock has increased fourfold since early 1993, and favorable recruitment is forecast to continue. Georges Bank cod populations also have grown, despite unfavorable recruitment. These trends show that recovery measures can work, and the effects of those measures can be observed quickly.

Turning to the management of wide-ranging Atlantic fish like tunas and billfish, NOAA Fisheries has taken the lead in preparing management plans and rebuilding programs. This past April, NOAA Fisheries completed a fishery management plan for Atlantic tunas, swordfish and sharks (HMS Plan) and an amendment to the billfish fishery management plan (Billfish Amendment) that contained rebuilding programs. Numerous and substantial changes were incorporated in the final rule to implement the HMS Plan and Billfish Amendment, based on the thousands of public comments received by the agency. Advisory Panels established under the SFA and composed of representatives of commercial and recreational fishing interests and other knowledgeable individuals, including members of the ICCAT Advisory Committee, participated in the development of the management measures. The final rule became effective July 1, 1999. In addition, we are working hard to complete restrictions on the use of spotter planes. We do face serious legal challenges, however, and lost an important case last year. Recently, we responded to concerns from purse seiners in the BFT fishery and removed the cap.

Essential Fish Habitat—One significant change that resulted from passage of the SFA is the increased emphasis of the Magnuson-Stevens Act on conserving and enhancing essential fish habitat (EFH). Here in New England, EFH was designated for the 18 species managed by the New England Council, a number of species managed by the Mid-Atlantic and South Atlantic Councils that range into New England waters, and some highly migratory species in the Gulf of Maine and southern New England that are managed directly by NOAA Fisheries. EFH was identified for each

individual species and life stage using the information available to the Councils and generally constitutes about 60 percent of the geographic range of each managed species in New England. While the area covered by all the designations together is quite broad, this scope is unavoidable and recognizes the diverse habitats of a wide variety of federally managed species.

Within an EFH, we can focus on a subarea called a “habitat area of particular concern.” For example, on Georges Bank, the New England Council did an excellent job of using available scientific information to identify a relatively small area that is extremely important refuge habitat for juvenile cod, as well as other species. When portions of the closed area on Georges Bank were re-opened to scallop fishing this summer, the area of particular concern was excluded and remained closed to protect the habitat. Such areas do not always require restrictions on fishing, but we must carefully examine potential threats, and in some cases management measures may be necessary to avoid adverse impacts.

The EFH provisions of the Magnuson-Stevens Act also help address threats from non-fishing activities. NOAA Fisheries has conducted over 1,900 consultations to date with Federal agencies whose actions may adversely affect EFH. Over 600 of those consultations have been in the northeastern states and about 40 here in Maine. One of our goals is to integrate EFH consultations into existing environmental review processes (such as Environmental Impact Statements) as a way to minimize regulatory impacts on federal action agencies and the public. We expect the number of consultations to increase as outreach efforts with Federal agencies continue to build awareness of the EFH statutory requirements.

Bycatch reduction—Minimizing bycatch continues to be a very high priority for NOAA Fisheries, and we are working closely with industry to develop new gear, and to promote clean fishing practices in all the fishing sectors. For instance, vessels participating in the New England Sea Scallop Exemption Program (Exemption Program), which allows scallop vessels to fish in an area closed to protect groundfish on Georges Bank, are required to use a twine top with a minimum mesh size of 10 inches. Furthermore, effective December 16, 1999, vessels fishing under the sea scallop effort-control program outside of the Exemption Program area will be subject to a minimum 8- inch twine top requirement. This increase from the current 5.5-inch requirement is expected to produce significant reductions of certain bycatch species, especially flatfish. In addition, the Exemption Program fishery will be closed when a certain percentage of yellowtail flounder is caught, ensuring that the program will not jeopardize the yellowtail rebuilding schedule.

Improving technical and scientific information and analyze—NOAA Fisheries is committed to using the best possible science in the decision-making process, and to incorporating biological, social, and economic research findings into fisheries conservation and management measures. Meeting our responsibilities under the Magnuson-Stevens Act and other applicable laws requires collection of a considerable amount of data. We will continue to support a precautionary approach in the face of scientific uncertainty. At the same time, we are expanding our own collection efforts and our partnerships with the states, interstate commissions, industry and others to collect and analyze critical data. In January of this year, NOAA Fisheries delivered a Report to Congress entitled *Proposed Implementation of a Fishing Vessel Registration and Fisheries Information System* that calls for innovative state-federal partnerships to improve the quality and quantity of information for marine resource stewardship. Such federal-state partnerships are an important mechanism for sharing resources and reducing duplicative efforts.

REAUTHORIZATION ISSUES

We are still working to understand and effectively implement the changes to fishery management policies and procedures made by the SFA. Consequently, we would not propose major changes to the Magnuson-Stevens Act at this time. However, we have established an internal agency task force to evaluate SFA implementation, and the group has identified some revisions of existing provisions that may be useful to make the management process more efficient and to resolve some relatively minor problems. We currently are reviewing various issues raised by the task force, the Councils, and some of our stakeholders. Among the issues identified are the following:

Review process for fishery management plans, amendments and regulations—The SFA attempted to simplify and tighten the approval process for management plans and regulations. However, one result of that effort has been two distinct review and implementation processes—one for plans and amendments and another for implementing regulations. This essentially uncouples the review of plans and amendments from the process for regulations, and as a result, the decision to approve or

disapprove a plan or amendment may be necessary before the end of the public comment period on the implementing regulations. We are considering amendments that would modify the process to address this issue.

In addition, the Committee may wish to consider reinstating the initial review of fishery management plans and amendments by the Secretary. Considerable energy and staff resources are expended on plans or amendments that are ultimately disapproved because of serious omissions and other problems. At present, two to three months must elapse before the Secretary makes his determination, and if the amendment is then disapproved, it can be months or longer before the Council can modify and resubmit the plan or amendment. While the initial review was eliminated by the SFA to shorten the review process, it actually may provide a mechanism to shorten the time it takes to get a plan or amendment approved and implemented.

Restrictions on data collection and confidentiality—The Magnuson-Stevens Act currently restricts the collection of economic data from processors. Removal of this restriction could improve the quantity and quality of information available to meet the requirements of the laws requiring social and economic analysis. In addition, the SFA changed the term “statistics” to “information” in the provisions dealing with data confidentiality. The change has raised questions about the intended application of those provisions, particularly with respect to observer information, and Congressional clarification would be useful.

Coral reef protection—Special management areas, including those designated to protect coral reefs, hard bottoms, and precious corals, are important commercial resources and valuable habitats for many species. Currently, we have the authority to regulate anchoring and other activities of fishing vessels that affect fish habitat. Threats to those resources from non-fishing vessels remain outside agency authority except when associated with a Federal action that would trigger EFH consultation or where addressed in regulations associated with a national marine sanctuary. We suggest amending the Act to clarify, consolidate, and strengthen NOAA Fisheries’ authority to regulate the actions of any recreational or commercial vessel that is directly impacting resources being managed under the Magnuson-Stevens Act.

Caribbean Council jurisdiction—The current description of the Caribbean Council limits its jurisdiction to Federal waters off Puerto Rico and the U.S. Virgin Islands. As a result, the Council cannot develop FMPs governing fishing in Federal waters around Navassa Island or any other U.S. possession in the Caribbean. Jurisdiction of the Caribbean Council could be expanded to cover Navassa Island, by including “commonwealths, territories, and possessions of the United States” within the description of that Council’s authority.

Council meeting notification—To meet the notification requirements of the Magnuson-Stevens Act, Councils spend tens of thousands of dollars a year to publish meeting notices in local newspapers in major and/or affected fishing ports in the region. By contrast, fax networks, mailings, public service announcements, and notices included with marine weather forecasts are much less expensive and could be more effective in reaching fishery participants and stakeholders. The Committee may wish to consider modifying notification requirements to allow Council use of any means that will result in wide publicity.

We look forward to working with Congressional members on high-priority policy issues such as observer programs, individual fishing quotas, and funding and fee authorities, although, at this time, we have no specific recommendations for changes in the Act to address these issues. We will continue to work closely with the Northeast delegation, New England Council and our stakeholders to resolve problems affecting New England fisheries.

Madame Chair, this concludes my testimony. Thank you for the opportunity to discuss the implementation and reauthorization of the Magnuson-Stevens Act. I am prepared to respond to any questions you and members of the audience may have.

Senator SNOWE. Thank you very much, Ms. Dalton. I appreciate your testimony and Commissioner Lapointe as well. It may well be, Ms. Dalton, that this current reauthorization doesn’t require many changes. I know there were some that you suggested in your testimony, but clearly there’s a fundamental problem with the implementation of the Act, and specifically many of the changes that were incorporated in 1996, and Commissioner Lapointe talked about those.

I’d like to get to one of the core issues, the issue of flexibility and National Standard 8. That’s obviously been one of the more signifi-

cant concerns that has been raised time and time again. I know Commissioner Lapointe raised it in his remarks. The way the Act is now interpreted and implemented is eroding our ability, the fishing community's and state's, to support a way of life. And somehow we've got to develop a balance.

I'm trying to understand exactly what is in the language of the 1996 amendments that impedes our ability to protect the stock and also protect the communities. Obviously NMFS has not met the standard for considering socio-economic impacts and the adverse consequences of their regulations on fishing communities. Does NMFS acknowledge that? I think that's first and foremost here. That's why we had the General Accounting Office come up to Maine and conduct a series of meetings across the country on this issue. Does NMFS acknowledge that something has to be done on socio-economic impacts of regulations?

Now, some suggest elevating National Standard 8 and I'm going to figure out a way to do that. One of the things that occurs to me is maybe we ought to create a specific advisory panel similar to those mandated under the Regulatory Flexibility Act to assess the impact of Federal regulations on small business. Certainly most fishing companies are small businesses, but maybe that's the direction we have to take to ensure that this will be evaluated in the process.

Ms. DALTON. If you look at the changes we made in the 1996 Act, most of them, if you look at the things that we did on overfishing and the things that were done on habitat, all of those built on the existing framework of the Act. National Standard 8 was brand new. There were requirements in the Act to look at economic impacts, but there was not a national standard.

Part of what we're finding over the years, if you look at the make up of this agency, is that it has a large number of biologists, of fishery managers, and relatively few are economists—our expertise in the area of economics is not very strong. We have probably a few dozen economists in the agency, one of whom is sitting right next to me. But I think part of it is not that we don't recognize that we need to deal with these issues, but that we are learning how to deal with them. And it's a new element.

As we've had to make very difficult decisions as the Councils have had to make difficult decisions to rebuild fishery stocks, it's really brought home the socio-economic impacts and the need to deal with them. When fisheries were growing and everybody was catching all that they wanted, then you don't have to worry because there aren't those same kinds of economic concerns.

Senator SNOWE. I know the courts threw out a couple of rules that NMFS developed because NMFS failed to address the socio-economic impacts of its regulations.

Ms. DALTON. There was another change in the law that was made at the same time as the Sustainable Fisheries Act and that was that the Regulatory Flexibility Act became judicially reviewable. Some courts have criticized our compliance with the RFA. One Regulatory Flexibility analysis that has been considered in the court has been the one that was done for the multispecies fishery. That was accepted by the court. Some of the ones in the Southeast that we did didn't fare as well judicially.

But, leaving aside our successes or failures in the court, a large group of fishery managers, economists, and social scientists met about 2 weeks ago. We are trying to develop new guidelines for our economic and social analysis that we can provide to the public and basically use so we have a uniform national policy. We are hoping that that will come out by sometime in the beginning of next year. We also have been participating in Small Business Administration round tables, discussing the Regulatory Flexibility Act implementation, and Pat tells me that up here in the region they're going to have a meeting next week to talk about the same issues and their application here in New England.

So we are taking measures, we have about a \$1 million increase in our budget proposal this year which the Senate has funded but the House has not. Those funds would allow us to go ahead and improve our data collection in those areas.

Senator SNOWE. Commissioner Lapointe, what do you think is the problem? Is it the actual language in the Act, is it in the implementation, or do we need to change the current statute?

Mr. LAPOINTE. We need to do more in terms of data collection on socio-economic issues so we understand how those processes work and how we can put them in the decisionmaking process. But in the Act fundamentally, I think I had mentioned before the issue of balance and flexibility and the management process pace.

Certainly the rebuilding schedules and the rigid interpretation of those comes to mind, and in fairness I don't want to dodge the bullet on conservation issues. The state and the people in this room working on cod have had their nose right to the grindstone on conservation issues, but I think that we need to be able to balance among species, make some conscious decisions, and I think we need to look at the timeframes built into the Act in terms of reviewing plans. It simply doesn't allow us enough time to make conscious decisions and balanced decisions about the different factors in the fishery management process.

Senator SNOWE. I know you mentioned that the current timeframes don't allow for discussion to alternatives to a management plan. Is that because there are so many changes occurring in a given year, for example, or is the schedule structured so rigidly that it doesn't allow for consideration of anything else?

Mr. LAPOINTE. I think both, and I'd have to look at the specific timeframes in the plan, but if you look at New England groundfish, we're now working on Amendment 13 and we've had 31 framework adjustments — I could be wrong, but I think we've had five this year—and certainly I've been in my job for 1 year now and in watching the groundfish process, we keep on trying to deal with short term fixes with the biological targets that we never really get a good discussion of those socio-economic impacts nor of management alternatives that may make the process run more smoothly.

Senator SNOWE. Well, I think groundfish is a good illustration of the problems with the current system. Ms. Dalton, George makes a great point here about the issues concerning groundfish and to think about what we've gone through recently. Obviously, the most recent was yesterday at the New England Council, but the point is, it started out with a plan that obviously the Maine industry recognized as being truly deficient. And even when Secretary Daley

announced a change to the plan that was ultimately adopted by the Council concerning cod, he knew that it would not work either from a conservation standpoint or from an economic standpoint. Obviously, the adjustment to that framework did not work between May and this week. So this is a problem.

If you think about the changes that have occurred just in the groundfish industry this year, it shows that there's something wrong. NMFS could have sent the original plan back to the Council saying this is not going to work, but NMFS failed to do so. So here we are today with a fifth adjustment this year to the plan. Something is clearly wrong, and is it NMFS' unwillingness to make those changes? What is it?

Ms. DALTON. I think in terms of the issue of sending plans back, we must approve a Council plan if it meets the requirements of the Magnuson-Stevens Act and other applicable law. So our preferred alternative is not to send a Council plan back unless it violates the law.

The Gulf of Maine cod issue is a big problem. Part of the problem is that one solution that we work out disadvantages one sector of the economy, another approach that we take disadvantages another region or sector of the fishery, and so on. Not only are we doing a balancing act in terms of the conservation goals and trying to reduce bycatch, reduce fishing mortality, but we're also doing a balancing act in terms of doing something that's fair and equitable to the participants in the fishery. So it's a really difficult situation for the Council to get in. I know that they agonize over the decisions that they have to make.

One other thing, getting back to your other point about the process, the Regulatory Flexibility Act requires us to look at alternatives. One of the things that we're going to be trying to do is working more with the Councils so they look at a broader range of alternatives before they make their recommendations to us.

Senator SNOWE. Well, does NMFS prefer not to send a plan back in all circumstances, because I know it has in the past? So if you recognize the inadequacy of the management plan or changes to it, why not take that step of sending it back without creating all of these other problems that obviously developed with the groundfish industry. I mean, the multiple changes that occurred because it was recognized as deficient at the outset. The Council refused to do the closures that were recommended in the Maine plan. Now the Council has agreed to additional closures as a result of the plan they produced yesterday. But I think NMFS has to recognize when there are problems with a particular plan.

Ms. DALTON. There are two issues. First of all, given the way that the law is structured, the Council is not merely giving us advice. According to the process, a plan is developed by the Council, we get the plan, and our goal in this is to basically evaluate it for consistency with the Magnuson-Stevens Act and other applicable law. So if the plan meets all the legal requirements, then we approve it. So it's not like we have a lot of leeway in deciding whether to approve it or not approve it. And the other thing is that we participate in the Council process, and we want to work with the Councils and hopefully when issues come up, we can guide it, but we're not in the—

Senator SNOWE. I think it goes back to some of the problems that are inherent in the Act and in the process and we have to try to get to the bottom of it. But do you really think that that plan considered the economic impact to the communities? I mean, here in the state of Maine, the fishing industry that doesn't catch much cod and doesn't target cod, was held to the same deficient standard as the other states like Massachusetts and New Hampshire which catch most of the cod? Do you really think that the socio-economic impacts were considered? What I'm trying to understand is how does the Council or the Agency consider the economic impact at the same time as trying to deal with conservation of a stock? And where is the balance?

Ms. DALTON. I'm going to respond to the issue of the Council's consideration. One thing that you should be aware of is that when you did accept the plan last spring it was based upon assurances by the industry that they could control the bycatch. I think the bycatch issue was identified as a potential problem. When that framework amendment went through, unfortunately it became a much harder task to avoid bycatch than they anticipated.

Senator SNOWE. Thank you. The Council did agonize over the issue of balancing impacts with conservation. It was somewhat close to 24 hours of discussion and deliberation over the best way to achieve that balance. Arguably, we didn't quite make that goal, but I think you're aware that the very heart of the problem here is that this affects fishermen and small boats with few other alternatives, and so trying to achieve that balance up and down the coast while still achieving the conservation goals has been a very difficult process. Mr. Lapointe, do you think that we ought to create a committee of some kind to specifically evaluate National Standard 8 and the socio-economic impacts?

Mr. LAPOINTE. The idea of a panel to work on such economic impacts I would welcome because they'll help identify alternatives, Senator Snowe. I think that we will, no pun intended, fish for ideas on how to deal with these issues and how to evaluate them well, how to evaluate them in state between big areas and small areas among the states, and if there's some way that a panel could help us work on that I'm all for it. Having said that, I'd be interested in the opinion of other people who were on past panels to see if they were worthwhile.

Senator SNOWE. Well, it's something that we'd certainly have to explore as a way of elevating the consideration of socio-economic impact. However, it should not be to the exclusion of everything else, rather just to make sure that it is inserted in the process, and to create that balance that may not exist now, at least in terms of the way it's been implemented.

I mean, even with the result of the decision that was made by the Council this week, that does not—that plan is not extended for the entire year 2000. So, again, the industry is going to face another adjustment in a few short months. So I think it's that kind of process that really hurts the industry and the people who depend on it, and we have to figure out a way of straightening out this implementation.

One thing I keep hearing over and over again, it's what has changed in the statute in 1996 that have really created the signifi-

cant problems in terms of regulation and implementation. So we're going to have to work together to figure out what's going to be the best way to adjust the statute with respect to that, and that's not to the exclusion of preserving the stocks. I think it's in everybody's interest. The question is how to create that balance.

Now, I know, Mr. Lapointe, you were talking in your statement about high abundance and low abundance in terms of maximum sustainable yield. How would you make that determination? Is that something that would be included in a statutory change? How would we do that?

Mr. LAPOINTE. I've had just some preliminary discussion and probably not enough but I'll speak about it anyway. One of the fundamental problems in the Act is trying to manage all species for maximum sustainable yield, and, again, to go back to that statement I made earlier, there is a set amount of biomass that the Gulf of Maine will hold and I think that the management process, we may want to consider adjusting how the target levels of different species, and again this isn't to say we don't want to work on conservation, but we may want to make conscious decisions about managing some species for MSY and some for some portion of MSY. I've not talked to my science staff about that, but I think that provides an alternative.

By having a target that's less than MSY, you still have a conservation target so you're not letting species fall off the board, but you're making conscious decisions about which species that in fact you're trying to manage for. Another thing I've heard from members of the community is that we may want to look at the changes that you mentioned with the 1996 Act and how we view the prioritization of species before the SFA and after. I've not done that but that's something that's been suggested by some people.

Senator SNOWE. Ms. Dalton, would you care to comment on his suggestion about high abundance and low abundance as a way of making some designation in developing various levels of importance through such a species?

Ms. DALTON. Right now, the way that the Act is structured it's on a species by species basis and based on MSY, so I think it would be difficult to do that sort of thing. Having said that, I think you have a general goal of trying to do more ecosystem based management. The difficulty is in trying to figure out how to get there. Whether we know enough as we look at the situation in New England it probably is more clear than anything else just how incredibly complicated these fisheries are.

When we go ahead and put restrictions in for one stock, then it ends up impacting the fishermen's ability to harvest other stocks. So while I don't think we have any disagreement on the goal of doing some sort of ecosystem/fishery-based management system rather than doing it on individual stocks, the law is set up right now looking at the stocks individually.

Senator SNOWE. Well, should that change? I think that's the key point. Whether or not to establish priorities within the management process. Obviously that approach requires figuring out how a species fits into the whole ecosystem. But the question is whether or not the way the system is now implemented that it requires all stocks to be managed at the same level of importance. Maybe that

overburdens the whole management process and we should try to make a determination about what's most important at this point and then consider the other stocks at another point. I mean, is that feasible, in your opinion?

Ms. DALTON. Right now with what we know about the fisheries, I don't think we can do it.

Senator SNOWE. Because we don't have the information, we don't have the ability to make those decisions?

Ms. DALTON. It goes back to the biological information, but it also goes back to the economics of the fishery. If you set a ground-fish-wide quota, then if I were someone who was making my living I would probably target on more of the high valued species. So you've got to be able to balance the need to protect individual stocks with overall interest in setting something or doing something that makes sense for the fishery as a whole, and right now, all of those interactions, what's going on in the Gulf of Maine is a good example, all the various interactions really, really make it difficult to develop regulations that make sense.

Flexibility is good. But, by the same token we have to have safeguards, and I don't know where that balance lies right now. I think the Act provides us with enough ability to do it. Could it be fine tuned? Certainly.

Senator SNOWE. Well, do you think the language in the statute should be more flexible?

Ms. DALTON. Right now the guidelines allow some species in the multispecies complex to be overfished under limited conditions. So I don't know, maybe that needs to be broadened a little bit. This was one big discussion that NOAA Fisheries had with Congress when they were doing the implementation of the Sustainable Fisheries Act.

Senator SNOWE. Well, I and several of my colleagues sent a letter to Terry Garcia on these issues because we were concerned about the interpretation and the definitions that were issued in the regulations by the Agency. The requirements for rebuilding schedules and others were too severe and too rigid.

Again, I think more than anything else, there should be some flexibility acknowledging the balance between conservation and the economic impact and how long it's going to take to rebuild the stock. You know, the fact that there are several clear exceptions to the 10-year ceiling reflects the true intent of Congress to show some flexibility on rebuilding schedules. So, again, it's a question of how we're going to insert this into the statute in this next reauthorization. And I'm just interested to know whether or not the agency recognizes that there are some fundamental problems with the way the Act is being implemented.

Ms. DALTON. I was still on that side of the table at that point.

Senator SNOWE. Would you agree that there was a problem then?

Ms. DALTON. I think what we're trying to do as each of the fishery management plans comes up for review is work through it and maintain an adequate amount of flexibility as the Councils work through and work to implement the 1996 amendments and also work through the guidelines that the agency has. What we need to do is figure out what the problems are with the Act, what the problems are with the guidelines, and what the problems are with the

implementation, and hopefully we'll have enough experience as you work through your reauthorization process to be able to give you good insights into where that balance is.

Senator SNOWE. Well, I hope we can because I don't want to miss the boat in this go around. I'm trying to pinpoint the exact changes that can make a difference without destroying the intent of the Act. It's in everybody's interest to ensure that we preserve fishing as a way of life and as a resource to this country, but there's something obviously gone wrong, and I just keep hearing it over and over again and those who are on the front lines of this statute and having to deal with it obviously have concerns. I think the groundfish example this year is unfortunately a perfect illustration that something has gone awry in the implementation.

I mean, no one should have to go through that many adjustments in 1 year given the plan that had been submitted by the Maine industry initially. Even NMFS' own analysis acknowledges that it would work. So we really have to work through that and I hope that we could work with the agency to do that and to consider many of these changes.

Also, deadlines seem to be a problem. In just reviewing some issues it made me realize how many deadlines that have not been met by the Agency. For example, the Vice President recently announced something that we already knew had been announced, the \$5 million aid to the groundfish industry. And it unfortunately created a lot of confusion because many people thought it was additional funding when it was actually the money that had been passed by Congress a year ago.

Now, that money is nowhere near being disbursed. Rules haven't been developed. And that's one issue, and I'm going to get to that in a moment, but then you also have the spotter planes. There's another problem.

Again, NMFS was supposed to have developed rules to ban spotter planes. But we've been told by NMFS that we're just about to go to court and we fear a challenge. Well, I think you could draft a rule that would withstand judicial scrutiny. Also, when it comes to the Atlantic States Marine Fisheries Commission being the lead on lobster management, again, that deadline was in 1997.

I realize we're getting there and NMFS has taken the state plan, but again it's a delay in the implementation according to the deadline. The Act required an advisory panel to examine the issue of a comprehensive ecosystem. This report was supposed to be delivered to Congress within 2 years and the deadline was October 1998. So those are deadlines that I just discovered that have been exceeded. Is the Agency so overwhelmed that they can't meet these deadlines and these time tables? What's gone wrong there?

Ms. DALTON. I beg your indulgence for just a second to go back to one earlier point that you made about the problems with groundfish fisheries. One of the points I think that needs to be made is back to what I said in my opening statement. Fishermen have made enormous sacrifices over the past 5 years to begin to rebuild the groundfish stocks.

We are beginning to see that it actually is beginning to work. So part of it is I know that there is a lot of frustration, I know that we have really thorny issues in some areas like the Gulf of Maine,

but we are beginning to see the results. The sacrifices they've made have not been for no response at all from the system. What we're showing is that while our fisheries are still not in great shape, we can bring them back, and working with them it's worth it in the long run if we can go ahead and rebuild these fisheries to sustainable levels.

On the issue of deadlines, I think there were over twenty reports that were in the Sustainable Fisheries Act and it did put enormous requirements on the agency. We have, I think, at this point gotten all of the reports out. We're going to release the Federal Investment Task Force Report next week and I think that's the last of them that we're required under the law from the SFA. They are delayed.

One of the problems that we're getting into now and we talked about a little bit before is with the increase in litigation that we see we are diverting a lot of time and attention to things like preparing administrative records and things like that so that we have, I think, our administrative record for a number of the highly migratory species cases that we have was over a million pages long, and preparing those records and dealing with that situation is taking far more resources, both human and in terms of just basic things like copy machines that we hadn't really prepared for.

Senator SNOWE. The \$5 million from the emergency disaster assistance, where is that money? Why haven't the final rules been issued?

Ms. DALTON. The rule is out now, and the letters Pat tells me will be mailed to the industry next week, so hopefully the money will be in the hands of fisherman by sometime late this fall.

Senator SNOWE. It will take that long?

Ms. DALTON. Part of it on that one is we tried to do something different. We have never done this kind of thing with compensation, working out a compensational commitment for cooperative research and exchange but providing them with relief. So it was really something that came up as a result of the rolling closures last year. I don't think it was something whenever the money was appropriated that was really anticipated.

Senator SNOWE. So when could it find its way into the hands of the fishermen?

Ms. DALTON. Hopefully late this fall.

Senator SNOWE. This fall?

Ms. DALTON. Yes.

Senator SNOWE. Spotter planes. Now, at the hearing in July in Washington when Mr. Garcia was asked about the status of the rule to ban spotter planes, he said it would be coming sooner rather than later, and I wanted to know what was the definition of sooner.

Ms. DALTON. This one has been one of the most complicated issues. In addition to New England, the Gulf of Maine groundfish situation, this has been probably the other most difficult issue. On that one, as you well know, we had a rule that was overturned by the litigation. So we went ahead, went forward with a highly migratory species fishery management plan. That's been finalized, the regulations were finalized, and then a new spotter plane regulation was proposed in June after we finalized the NMFS regulations.

Since then, in the course of that process, we have done new analyses, we've had new comments that have been made and what we were trying to do basically is prepare the best possible rule that we can that will withstand what we know will be an almost certain legal challenge. That has necessitated much review and much revision of the rules.

Right now I think our goal is to have something that has been through the process and in place. At this point we're almost too late for this fishing season because it's waning down. We'll try to have this issue completely resolved by the time the season starts back up.

Senator SNOWE. Well, does NMFS have the ability to develop a rule that it can defend against a lawsuit?

Ms. DALTON. We're trying.

Senator SNOWE. I mean, it's not an unusual thing to have challenges in court, so what's the hesitation here? What's the difficulty?

Ms. DALTON. I think there has been review of some of the economic information that's been provided and trying to fill in the holes in our record that led to the judge's decision—what we're doing is looking at what the judge said the last time to try to make sure that we don't make the same mistakes again.

Senator SNOWE. So when would the fishermen have some certainty on this issue?

Ms. DALTON. As soon as we can figure out the way to do it. This is an embarrassment for the Agency. We need to get it worked out, and we are working on it, but I'm hesitant to give a time line and then we end up not meeting the time line that we gave you, so what I'd like to do is get back to you in the next couple of weeks with some plan on how we'd like to proceed.

Senator SNOWE. On science, Mr. Lapointe and Ms. Dalton, can you tell the committee about how we can ensure that the best science is used in the process and that the best science is available in the development of management plans. I mean, what can we do in this reauthorization that can make the difference to ensure that that data is available to the industry and is used in the research?

Ms. DALTON. A couple of things come to mind. I mentioned earlier in my testimony the idea of—well, I think we need data quicker in the management process, and that's something that we can work on, and I mentioned earlier in my testimony the idea of cooperative research with the industry as a means of getting that.

Look at the contrast of the management of the northern shrimp fishery with the groundfish, the northern shrimp fishery. Every year in November we have a hearing and use data that was last gathered in August of that year. And even when shrimp stocks are down, like now, people have, they believe that there's science going into the process and they see the information is based on the observations of reality. So trying to get the science so we get information quicker, so that we're managing not just on 1 year old data would be better than two. To get it closer to the current conditions I think would be a big step.

Senator SNOWE. What can we do to ensure that is the case? How did the shrimp industry get more accurate data. How were they able to do that?

Ms. DALTON. Largely the amount of workload I think on the people gathering data and getting more timely information, and that would involve people gathering more data sooner. That involves more money, or cooperative research and better research I think.

Senator SNOWE. You mentioned that the Atlantic States Marine Fisheries Commission has greater public support for their plans than the plans of the Council and NMFS. Can you explain why? Because I'd be interested in how they enjoy great confidence in the decisions that they ultimately reach.

Mr. LAPOINTE. There's a number of reasons. In shrimp it's because there has been a process developed over a decade and a half where people see cause and effect. They hear reports from the scientists and it matches what they see in reality, and there's a management process in a short timeframe whereby every year in November we set the regulations and people know what they have in place for December through May. It doesn't give them much time to plan, and they don't like that, but there's a set number of steps and there's closure to the management process. It's gotten more complicated, but in a good way.

We have two or three advisory panel meetings leading up to the public hearing. We have one public hearing, we hash it out all day long, and we go home. People like that because they know what they're going to get December through May. And so I think there's that. The Commission operates by a series of guidelines for fishery management plan development that I think doesn't have as many hurdles as the guidelines for managing under the Magnuson-Stevens Act, and it can get through issues quicker.

Senator SNOWE. Is the Sustainable Fisheries Act too open ended in the council process?

Ms. DALTON. That's a common criticism of any fishery management because it's a process. I think that again with the council process, the council management process, you build in extra tiers of people involved so it just becomes slower and farther away from the fisheries and fishermen we're trying to impact.

I guess on the data part of it, this is an area where we have focused a lot of attention, and one of the big things that we want to do is have a series of back-ups in place. I don't know if you're aware that we had huge problems with the vessel, *The Albatross*, for years and years. We had problems with both sets of couplings and had to do basically a worldwide search for replacement parts so that it could go and do the fall stock assessments.

So one of the big things for us is to get more fisheries research vessels in place. This is another area where the Senate has been very cooperative and helpful and we're hoping that we're going to begin that process this year. We also are experimenting in other parts of the country with some things like electronic data systems and things like that that we may want to talk about in terms of things that may help to speed up the data transmittal. With respect to the shrimp issue I'll turn that over to Pat to talk about.

Ms. KURKUL. Not the shrimp fishery so much as the herring fisheries, actually, is what I was thinking of where we have, with your help, been able to provide some funds that will allow us to do some cooperative work with the instrument hydro-acoustic surveys. I

think this is an excellent model for how we can work closely with the industry in improving our data.

So that's one area where we'd like to see some expansion. We do actually in this region, in this area, have on the biological side—Ms. Dalton has pointed out the problems we see with our economic information, but at least on the biological side we have a time series of information that's the envy in fact of many other areas of the country and other areas of the world.

We can continue, we should continue, to improve on that data base. We need to look more at ecosystem management and improving, from that perspective, habitat management. Again, through some supplemental appropriations this last year provided by Congress, we're also going to be able to increase working more directly with the industry and using industry vessels as platforms for scientific research. So I think there's a lot of areas where we can start to expand on the information we collect.

Senator SNOWE. Well, is the ability to collect timely data based on the availability of funding? Is that what makes it successful? Is that what the commission did in collecting data for shrimp? How do they get data that's several months old as opposed to a year old?

Ms. KURKUL. One of the good things about the shrimp fishery is it's simple and they can collect data in a small amount of time, but it started with funding the money to do that survey. I know that's done cooperatively with the industry. Pat brings up a very good point about herring and cooperative research, because here in Maine they have developed a cooperative research program that gets that information in a timely manner. Importantly, the industry was, and members of the community were involved in the prioritization of the research so that it in fact becomes an agenda and research program that isn't just an agency's research program, it's the region's.

Ms. DALTON. I think a lot of the barriers are also institutionalized because we have data collected in a variety of different places. The states collect information, the Federal Government collects information, and one of the things that was done in the Sustainable Fisheries Act was there was a requirement to come up with what would be a national information system, and we have completed that report and submitted it to Congress, and one of the things that we're talking about in our internal budget discussion is how we can move that system forward and that basically would be cooperative arrangements with the states, with the commissioners, with the tribes.

The idea would be to have a standardized national data base that would give us a better idea of what's going on in our fisheries—how many boats are out there, what they're catching, what kinds of bycatch, the problems they're facing—so that it would be a united system that we could basically make timely decisions on and feed—

Senator SNOWE. The key would be having the best science and the most timely information. The question is how to do that at the national level without it becoming too unwieldy. When I think about trying to nationalize this effort, I just wonder if it becomes even more complicated and overwhelming, and I see that as one of the major problems that I think that has eroded the Act. It seems

like the inability to get the most up to date information in making the best decisions and that these plans are predicated on, that scientific information, and it's just not there.

The GAO is investigating implementation of National Standard 8 and National Standard 2 which was the best science standard. I think it's crucial to create confidence in the decisions they ultimately make. And that confidence clearly is not there, which is what's interesting about the point you make, Commissioner, about the fact that the Atlantic States Marine Fisheries Commission enjoys a great deal of support and confidence in the kind of work that they do, and I think that's because they do use more up to date information but they also work closely with the industry.

I think that that's going to be a major challenge in the future. But I think if more resources are needed then we need to know that. Clearly we don't want it to be a bureaucratic impediment. If it's a money problem, we need to know that. If it's a bureaucracy problem then we need to change the law.

Ms. DALTON. I didn't mean to imply that we were going to do the "big brother" fishing information system. The way that it's set up would recognize regional differences. What it's intended to address is some really pragmatic problems that we have, like computers that don't talk to each other.

One state collects their information, another state may collect information on number of sets, another one may count fish, differences that we have that really makes it hard for us to put the information together and come up with good reasonable estimates. The other issue is that we've got basically two kinds of information that we need. We have fishery independent data that we need and fishery dependent data.

This would address the issue of fishery dependent data and help us to pull that together. Then the other issue is the kind of thing that Pat is talking about that doesn't rely on the fishermen to provide the information, and that's things like our stock assessments and acoustic surveys and things like that. Another issue is integrating those two forms of information together.

Senator SNOWE. On lobsters, speaking of deadlines, when can we expect to see a final rule that would withdraw the Federal plan to implement the Commission's plan?

Ms. DALTON. I think at this point it's winding its way through the system. One of the things that we were asked to do was to wait until the last Commission meeting and see what decisions they made to make sure that whatever we did and the final rule was consistent with that.

Senator SNOWE. Am I correct in saying that at a recent meeting of the Commission lobster board that a NMFS representative announced that they may require additional tags for traps in Federal waters?

Ms. KURKUL. There is a commission working group that has been formed to discuss the issue of tags and clearly the goal is not to have any duplication in that effort, and the working group is trying to figure out the mechanism for insuring that that doesn't happen. They're talking about memoranda of understanding between the state and Federal Governments and other vehicles that can be used to ensure that there's not a duplicative tagging requirement.

Senator SNOWE. So it wouldn't require the purchase of additional tags? Would there be an duplication here?

Ms. KURKUL. The question would be still whether or not we could work out an arrangement with the state and we're going to do everything we can to work out an arrangement so that doesn't happen.

Senator SNOWE. Do you think it's necessary on these tags?

Ms. KURKUL. I think having one tag for a given area is absolutely critical to—

Senator SNOWE. But not more than one?

Ms. KURKUL. Absolutely. And I think it's doable.

Senator SNOWE. Is there anything else that you want to tell this Committee with respect to the reauthorization process as we look to focus on some of the key issues, on the rigidity of the current Act and the changes that will be necessary to look at and explore?

Ms. DALTON. Your support in this process, particularly in the budget discussions is very valuable, because the budget is a big part of our problems and our constraints. We look forward to working with you to work through this process.

Senator SNOWE. Well, I'll be obviously talking with all of you further in the future on these issues, and I appreciate your presence here this morning. I thank you for your remarks and I know that we'll be working together as this reauthorization process continues. I appreciate your comments here.

Can I just reiterate these issues for the disbursement of the \$5 million, absolutely, and also on the rule on banning spotter planes, if we can get this in place—I hesitate to use the word sooner rather than later. The Federal definition of sooner rather than later. Generally that means sooner like next week. Do you think that's possible that we're going to get this done this year?

Ms. DALTON. I would love to, but let me get back to you.

Senator SNOWE. It's the lawyers?

Ms. DALTON. It's really a difficult situation, and I think what we need to do is just figure out the way that we're actually going to get this issue resolved once and for all.

Senator SNOWE. OK. I thank you very much. Thank you for being here today and traveling. On the next panel, our first witness will be Pat White, Executive Director of the Maine Lobstermen's Association. We will also have Mr. Richard Ruais who is the Executive Director of East Coast Tuna who was also at our Washington hearing as well. Our last witness will be Mr. Donald Perkins who is President of the Gulf of Maine Aquarium Development Corporation. Don also serves on the Maine Herring Advisory Council and I appreciate your being here today. I know that Jeff Kaelin, Executive Director of the Maine Sardine Council was unable to be here because he was attending a wedding today. So I thank you, Don, for being here as well. We'll proceed with you.

**STATEMENT OF PATTEN D. WHITE, EXECUTIVE DIRECTOR,
MAINE LOBSTERMEN'S ASSOCIATION**

Mr. WHITE. Thank you, Senator. Senator Snowe, I'm Pat White with the Maine Lobstermen's Association. On behalf of the MLA members, I'd like to thank you for the opportunity to submit the following comments concerning reauthorization of the Magnuson-

Stevens Act. The Magnuson Act states that rebuilding period of over fished stocks must be 10 years or less. The Act also states that the rebuilding period must take social and economic conditions into consideration.

My fear is that if management continues to focus on the time-frame only the social structure of fishing communities will become victims of a too rigid and uncompromising set of regulations which ignores one of the conditions put forth by the Act.

As directed in the habitat section, the secretary set a schedule for the amendment of the fishery management plans to include identification of essential fish habitat. The New England Fishery Management Council's habitat committee submitted an identification to the Council and was approved in less than a year.

The entire Northwest Atlantic has subsequently been deemed essential fish habitat for one species or another based on the areas in which the species were harvested. Unfortunately too little attention has been paid to the makeup of the ocean floor as well as the impact made by certain types on that habitat which may be negatively impacting the living habitats of certain fisheries.

I'm very concerned that the language used in the habitat section lacks definitiveness. In my experience a recommendation may or may not be accepted or followed. There is no clear mandate which will precipitate action to preserve an enhanced habitat. The current focus is on single species management. Fishermen are being locked out of fisheries and being forced to concentrate more on fewer species. The long time tradition of fishermen being able to seasonally switch the species he harvests appears to be gone forever. Fishermen have lost fishing permits because they didn't have landings during specified periods.

This type of restrictive management encourages increased effort on target single species which accelerates effort. The secretary shall ensure a fair and balanced apportionment of active participants on the councils in commercial and recreational fisheries. Twenty-eight percent of the value of fish landed in New England is lobster. Currently there is not one representative from that industry on the New England Fishery Management Council. This is an example of politics obstructing responsible fishery management, I find this inexcusable. Council may not submit and the secretary shall not approve or implement before October 1, 2000, any plan which creates new individual fishing quota program. I feel this restriction should be continued in the reauthorization.

Many of the directives in the Act appear to be unfunded mandates. Those having to do with science and research are good examples. Although the Act calls for management decisions to be based on the best scientific information available, too often that information is dated and therefore inaccurate. Far too little money is made available for research. Funding should be made available to establish good observer programs in order to make better use of the research platforms that are on the water every day—the fishing fleet.

The current system of regulations too often fails to involve those parties who are most affected by management decisions. The process for developing fishery management plans should begin and continue with industry, science and management working together. Their goals are the same, preservation enhancement of the re-

source. I thank you for the opportunity to speak today and applaud your efforts to include public input in a matter of such importance as the reauthorization of the Magnuson Act.

[The prepared statement of Mr. White follows:]

PREPARED STATEMENT OF PATTEN D. WHITE, EXECUTIVE DIRECTOR, MAINE
LOBSTERMEN'S ASSOCIATION

Senator Snowe and members of the Subcommittee on Oceans and Fisheries, my name is Patten White, Executive Director of the Maine Lobstermen's Association. On behalf of the MLA members, I would like to thank you for the opportunity to submit the following comments concerning the reauthorization of the Magnuson-Stevens Act.

The Magnuson Act states that rebuilding periods for overfished stocks must be 10 years or less. The Act also states that the rebuilding periods must take social and economic conditions into consideration. My fear is that if management continues to focus on the time frame only, the social structure of the fishing communities will become victims of a too rigid and uncompromising set of regulations which ignores one of the conditions put forth in the Act.

As directed in the habitat section of the Act, the Secretary set a schedule for the amendment of fishery management plans to include the identification of essential fish habitat. The New England Fishery Management Council's Habitat Committee submitted an identification of habitat to the Council and it was approved in less than one year. The entire Northwest Atlantic has subsequently been deemed essential fish habitat for one species or another based on the areas in which the species were harvested. Unfortunately, too little attention has been paid to the makeup of the ocean floor as well as the impact made by certain gear types on that habitat which may be negatively impacting the living habits of certain species. I am very concerned that the language used in the habitat section lacks definitiveness. In my experience, a recommendation may or may not be accepted or followed. There is no clear mandate which will precipitate action to preserve and enhance habitat.

The current focus is on single species management. Fishermen are being locked out of fisheries and being forced to concentrate more on fewer species. The long Maine tradition of a fisherman being able to seasonally switch the species i.e., harvests appears to be gone forever. Fishermen have lost fishing permits because they didn't have landings during a specified time period. This type of restrictive management encourages increased effort on targeted single species which accelerates effort.

Sec. 302 The Secretary shall ensure a fair and balanced apportionment of active participants on the Councils in the commercial and recreational fisheries.—28 percent of the value of fish landed in New England is lobster. Currently there is not one representative from that industry on the New England Fishery Management Council. This is an example of politics obstructing responsible fisheries management. I find this inexcusable.

Sec. 303 A council may not submit and the Secretary may not approve or implement before October 1, 2000 any plan which creates a new individual fishing quota program.—I feel this restriction should be continued in the re-authorization.

Many of the directives in the Act appear to be unfunded mandates. Those having to do with science and research are good examples. Although the Act calls for management decisions to be based on the best scientific information available, too often that information is dated and therefore inaccurate. Far too little money is made available for research. Funding should also be made available to establish good at-sea observer programs in order to make better use of the research platforms that are on the water every day—the fishing fleet.

The current system of top-down governance and regulation too often fails to involve those parties who are most affected by management decisions. The process for developing fishery management plans should begin and continue with industry, science and management working together. Their goals are the same; preservation and enhancement of the resource.¹

I thank you for the opportunity to speak today and I applaud your efforts to include public input in a matter of such importance as the reauthorization of the Magnuson Act.

Senator SNOWE. Thank you. Rich.

**STATEMENT OF RICHARD P. RUAIS, EXECUTIVE DIRECTOR,
EAST COAST TUNA ASSOCIATION**

Mr. RUAIS. Thank you Madame Chair, my name is Richard Ruais, and I'm the Executive Director of the East Coast Tuna Association. I appreciate today's opportunity to share with this Committee our views on a number of very important changes to fine tune the Magnuson-Stevens Act and to improve the process for international and domestic management of Atlantic bluefin tuna and other highly migratory species.

In 5 minutes, I'm only going to be able to summarize a few of the important issues which are described more fully in my written comments. I'd like to start with the most critical issue facing bluefin tuna fishermen, and that is the lack of scientific knowledge on the Atlantic bluefin tuna stock.

It was 5 years ago this month that the National Academy of Sciences concluded in their independent bluefin assessment review that, "research on the biology of Atlantic bluefin tuna is not continuing at the intensity necessary to answer major biological questions pertaining to the management of the fisheries."

I'm sorry to report that this deplorable situation has not changed much since the 1994 Academy report. Scientists simply do not know many of the critical biological parameters necessary for reliable bluefin conservation. We not only do not know bluefin stock structure and migration patterns, but scientists honestly don't have a clue whether MSY is 2800 tons or 13,000 tons in the western Atlantic. Add to this uncertainty a rebuilding plan based on an outdated two stock working hypothesis and an arbitrary boundary line in the middle of the Atlantic Ocean that migrating fish cannot and do not respect. About the only thing we know for sure is that the management line and hypotheses are flat out wrong given the New England Aquarium pop-up satellite tag study results showing at least 30 percent of the bluefin tagged here in the Gulf of Maine cross the boundary line to the eastern fishing grounds.

The bottom line is that the expensive sacrifices made by our fishermen under our paltry 1300 ton quota are at great risk when the fish swim across the arbitrary 45 degree boundary line where they are subject to intense fishing pressure resulting in catches of up to 46,000 metric tons.

This is why your support and leadership in our ongoing efforts to secure funds for independent scientific research at the New England Aquarium continues to be of critical importance to all tuna fishermen.

Moving on to our second critical issue, on January 28, 1998, several members of this committee coauthored a letter to Terry Garcia clarifying congressional intent in an attempt to address serious agency misinterpretations in their Federal guidelines relative to the definition of overfishing, MSY as an objective, and most importantly on the controversial subject of timeframe for rebuilding plans. My organization supports all of the January 28 clarifications on these critical issues. In particular, we were very pleased by your strong advice to NMFS that there was no basis for any interpretation of the Sustainable Fisheries Act implying that the 10-year benchmark for rebuilding was an absolute mandate for total fishery shutdowns.

Unfortunately, your efforts to relay a measure of reasonable flexibility in these rebuilding efforts has been lost on NMFS and other participants in the process. No situation better reflects the ultimate absurdity of the current inflexibility than the 30 pound cod trip limit fiasco forcing thousands of pounds of valuable cod fish to be wasted dead to the bottom of the sea. We believe that any rigid maximum time limit for stock recovery is arbitrary, unnecessary and represents bad policy. Once action has been established preventing further depletion of an overfished stock and fishing is occurring at a sustainable level, management timing of ultimate stock recovery involves primarily economic and social issues.

We believe that it is unconscionable to require a single family tragedy in the interest of an arbitrary time limit for a stock that is in a sustainable condition. No one should be forced to lose their boat, lose their home, or be forced from the fishery over a rate of recovery matter. We shouldn't have to ask you to make it clear in the law that humans are more important than fish.

We strongly urge the committee to now amend the Magnuson-Stevens to eliminate future agency misinterpretation regarding the existence within the statute of the necessary flexibility to rebuild fisheries in a practical fashion taking into account social and economic needs. We suggest that modification to the SFA's new National Standard 8 identifying a higher priority consideration of this National Standard and relative to the importance of flexibility in the rebuilding timeframes.

We caution the committee to be wary of suggested changes to eliminate flexibility for the regional councils and NMFS. Whether the advice comes from radical environment groups or retired party boat captains, the committee should resist the pressure of those anxious to make the so-called tough decision, to bite the bullet for others who must bear the resulting serious and/or catastrophic economic consequences.

On the issue of the timeframe for recovery for highly migratory species, my written testimony calls the Committee's attention to Section 304 E4(a) which was intended to allow for the establishment of rebuilding plans and timeframes for shared highly migratory stock by the competent international organizations and authorities. Congress has long recognized the need for international efforts to conserve highly migratory species in the Atlantic Ocean, given the fact that U.S. catches amount to less than 5 percent of the Atlantic wide total.

The United States cannot conserve these fish unilaterally, and we're not in the position to dictate the rebuilding time period for the multitude of nations that are involved in the international process. Despite the clear congressional intent, we're currently being harassed into a costly defense of the newly implemented 20 year rebuilding plan for bluefin by a National Audubon Society lawsuit.

We urge the committee to consider clarification to the SFA unequivocally acknowledging that recovery time periods and objectives for highly migratory fish should be established by the competent international organization.

Just quickly, several of the changes that we've included in the testimony is that we think that Commissioner Delaney's sugges-

tions about Commissioner intent in terms of a relationship between the international to domestic is very important and we're supporting that.

We'd also like to request the Committee to address the lack of regular independent peer review, a subject you talked about a few minutes ago, on many of the NMFS stock assessments, and we present in our testimony a two part amendment to the Act that we think could help that out.

Finally, we have a number of additional administrative suggestions that we think will improve the continuing process of highly migratory species management. Some of the changes that we're supporting would change the way the law structures the role of the ICCAT commissioners especially with respect to length of service, compensation, and to protect against conflict of interest. Thank you very much.

[The prepared statement of Mr. Ruais follows:]

PREPARED STATEMENT OF RICHARD P. RUAIS, EXECUTIVE DIRECTOR, EAST COAST TUNA ASSOCIATION

Madam Chair, my name is Richard Ruais and I am the Executive Director of the East Coast Tuna Association. Before joining East Coast Tuna in 1991, I was the Deputy Executive Director of the New England Fishery Management Council having worked for the Council since 1978. East Coast Tuna represents over 400 giant bluefin tuna fishermen (over 100 from the fine State of Maine), fish dealer small businesses, and associated support industry businesses all with a common interest in the long term conservation and proper management of this valuable highly migratory, and internationally shared resource. Our members catch and export the bulk of the U.S. quota of Atlantic bluefin tuna (ABT) contributing in a significant way to the total ex-vessel value of our highly migratory species landings which easily exceeds \$100 million annually.

I sincerely appreciate today's opportunity to share with this Committee our views regarding very important changes necessary to fine tune the Magnuson-Stevens Act and to improve the continuing process for international conservation and domestic management of Atlantic bluefin tuna and other highly migratory species.

ATLANTIC BLUEFIN TUNA RESEARCH

I would like to start by reminding the Committee of a major conclusion of the National Academy of Sciences' independent review of the Atlantic bluefin tuna situation in September of 1994. The Academy's conclusion, which I believe is even more relevant during this millennial eve, is that:

"research on the biology of Atlantic bluefin tuna is not continuing at an intensity necessary to answer major biological questions pertaining to the management of the fisheries."

Obviously, this deplorable situation (despite the 1995 amendment to the Atlantic Tunas Convention Act mandating an Atlantic bluefin tuna "comprehensive research and monitoring program") continues to be a great source of anxiety and frustration for the many thousands of individuals whose livelihoods depend on the fishery. The reality is that we have a very intense rebuilding plan on those migrating ABT assemblages that make a short seasonal visit to certain western Atlantic waters and fishing grounds. This rebuilding plan requires tremendous sacrifices on the part of all U.S. commercial and recreational fishermen as all groups labor under a paltry catch limit totaling less than 1,400 metric tons. But this plan is based on a "two-stock working hypothesis" with an assumption of limited stock mixing and an arbitrary boundary line in the middle of the ocean that migrating fish do not respect and that everyone knows is flat out wrong. Recent results from two years of pop-up satellite tag studies conducted by the New England Aquarium reveal that at least 30% of the ABT tagged here in the Gulf of Maine cross the boundary line to eastern fishing grounds where unrestricted catches have exceeded 46,000 metric tons as recently as 1996.

The continuing lack of adequate scientific knowledge on ABT stock structure, migration patterns, spawning areas, sexual maturity parameters, maximum sustainable yield levels and other critical parameters necessary for effective, efficient and reliable conservation programs directly jeopardizes the long term, expensive con-

servation sacrifices of U.S. fishermen. This is why the support and leadership of Members of this Subcommittee in securing substantial federal funds for independent scientific research at the New England Aquarium continues to be of critical importance to Maine fishermen and all involved in the management and conservation of ABT.

CHANGES REQUIRED TO THE SUSTAINABLE FISHERIES ACT

On January 28, 1998 several members of this Committee co-authored a letter to NOAA's Terry Garcia clarifying Congressional intent with respect to critical Agency misinterpretations regarding the definition of overfishing and realistic targets and considerations relative to MSY as a biological objective for most stocks including highly migratory species and relative to species associated with mixed stock fisheries. This Congressional clarification also strongly advised NMFS that there was no basis for any interpretation of the Sustainable Fisheries Act implying that the 10 year benchmark for rebuilding was an absolute mandate for total fishery shut-downs.

My organization supports the January 28 legislative clarifications on these critical issues and within the accompanying 6 pages of detailed staff analysis. We strongly urge the Committee to now amend the Magnuson-Stevens Act in all necessary areas to eliminate any possibility of Agency future misinterpretation regarding the existence within the statute of the necessary flexibility to rebuild fisheries in a practical fashion taking into account social and economic needs. *We suggest that some modification to the SFA's new National Standard 8 identifying a higher priority consideration of this national standard could substantially serve the purpose of eliminating current and future misinterpretation regarding the importance of flexibility in determining the rebuilding time frames.*

In addition, I would like to call the Committee's attention to the criteria in Section 304(e)(4)(A)(i)(ii) which clearly was intended to allow for the establishment of rebuilding plans and time frames for shared, highly migratory stocks by competent international organizations and authorities. Our concerns here are identical to those expressed by U.S. ICCAT Commissioner Glenn Delaney in his testimony to the Committee in August regarding the need to prevent interpretations that our domestic SFA could support or require attempts to force a "tail wagging the dog scenario", which would no doubt be counterproductive in the ICCAT setting.

Congressional recognition of the need for international efforts to conserve highly migratory species in the Atlantic Ocean has been a reality at least since the early 1970's with U.S. ratification of the ICCAT treaty. This recognition has been based on the fact that U.S. catches and the resulting fishing mortality exerted on these species is almost insignificant (usually less than 5% of the total catch) in relation to the total Atlantic wide catch and mortality exerted by other coastal and high seas fishing nations. The U.S. cannot conserve these fish unilaterally and we are not in a position to dictate rebuilding objectives, strategies or rebuilding time periods to the multitude of nations involved in the international processes. ICCAT alone has 27 nations involved in the scientific and political processes required for development of continuing conservation agreements.

Given these facts and the existing international framework for managing these fisheries, the 10 year SFA rebuilding period benchmark is only useful for guiding initial U.S. objectives within the international negotiating arena. Despite the clear Congressional intent and recognition of the process involved in conserving internationally shared species, the NMFS and ABT recreational and commercial industries are currently being harassed into a costly defense of the newly implemented ICCAT 20 year rebuilding plan for ABT. The National Audubon Society has initiated a lawsuit challenging the U.S. implementation of the ICCAT 20 year ABT rebuilding plan which results in highly restrictive quotas and size limits on all U.S. fishermen. *We urge the Committee to consider a specific clarification to SFA unequivocally acknowledging that recovery time periods for highly migratory fish should be established by the competent international organization.* Further, we ask the Committee to consider other changes necessary to prevent nuisance challenges of bona fide international recovery plans.

We also enthusiastically support Commissioner Delaney's suggested changes to Magnuson-Stevens regarding establishment of process linkage between "commissioner intent" in developing ICCAT international agreements and the corresponding domestic implementation. My organization has been directly impacted by the failure of the existing domestic process to capture the intent of the latest ABT international quota agreement as it relates to the equitable sharing of a modest 43 metric ton increase in the U.S. quota. Commissioner Delaney's suggested changes could avoid much future unnecessary litigation, time consuming corrective regulatory

framework actions and formal HMS FMP amendments and allow more efficient operations and use of the HMS Advisory Panel and NMFS HMS Division staff capabilities.

Madam Chair, there is no question that the Sustainable Fisheries Act was a landmark statute and initiated a dramatic turning point in this Nation's efforts to reverse the serious problems and impacts stemming from overfishing. NMFS has recently testified that substantial progress has already been made nationwide with the submission and implementation of numerous rebuilding plans since passage of the SFA mandates. In addition, here in New England recent stock assessments on groundfish and sea scallops are showing very promising signs. This is all encouraging news and the existence of the SFA virtually guarantees that the job of rebuilding our fisheries will get done and that a return to the failed management policies of the 1970's will not take place.

However, we want to caution the Committee, as these hearings and M-S reauthorization progress, to adopt a healthy suspicion about suggested changes to eliminate flexibility for the regional councils and NMFS, in effect denying adequate time for stock restoration and industry, adjustment to the increased fishing restrictions and decreased revenues. Whether the advice comes from radical environmental group leaders or retired Gloucester, MA party boat captains, the Committee should resist the entreaties of those willing to make the so-called tough decisions to "bite the bullet" for others who must make the resulting serious and or catastrophic economic sacrifices.

The simplistic view that the benefits of stock restoration will come sooner and be greater by "complete shutdowns" or "drastic quota cuts" is, in most cases, naive at best and certainly irresponsible and reckless towards those dependent on our fisheries for survival. Often, the effect of draconian reductions is to the long term benefit of those most immediately responsible for declines (and thus better healed to wait out the restrictions) while drastic actions typically eliminates those least responsible for the declines, effectively denying them any opportunity to share in future benefits from sacrifices already made.

We believe that any rigid maximum time limit for stock recovery is arbitrary, unnecessary and represents bad policy. Once action has been established preventing further depletion of an overfished stock and fishing is occurring at a sustainable level, management timing of ultimate stock recovery involves primarily economic and social issues (assuming a cooperative ecosystem). We believe that it is unconscionable to require a single human tragedy (e.g. elimination from fishery, lost vessel, home, college education, etc.) in the interest of an arbitrary time limit for a stock that is in a sustainable condition. Rate of recovery of a stock of fish and timing of ultimate total recovery to an MSY or other target goal should never take precedence over human impacts.

We want to offer the Committee some additional thoughts on maximum sustainable yield as a management goal. The fact that most people have little difficulty grasping the concept of an MSY as a goal makes it both attractive and useful, to a degree. However, unless certain difficulties with the concept are not taken into account, using MSY as a goal and a standard can cause some serious problems.

MSY for any fishery is a mathematical construction, not an invariant, measurable natural quantity. Most scientists understand this and try to provide some idea of the range of uncertainty in where MSY lies based on their determination of the uncertainties in the data that are used to estimate MSY. But this type of modeling in fisheries as in weather forecasting is subject to more factors than presently are practical to model. As a result, projection for population trends in a fishery are subject to the same degree of uncertainty as is a model predicting where and when a hurricane will make landfall.

There are two main problems with estimating MSY. One is the problem of collecting good data and the other is the fact that the yield in a fishery is subject to environmental variables. To a certain extent this can be dealt with by defining MSY as an average yield over time, subject to changing environmental conditions. What is not considered when estimating MSY, at least not explicitly, is that almost all fisheries are species specific. Therefore MSY is calculated as though the only factors of importance are the catch and effort data from the fishery and some sort of mathematical representation of a spawner-recruit relation that recognizes that recruitment may vary, from year to year due to environmental variability. These results ignore a whole range of other factors that affect the yield a fishery can be expected to sustain.

Our main interest, as you are aware, is with the management of Atlantic bluefin tuna. Therefore, although we will draw upon this species as an example, please bear in mind that the same sorts of complex interactions apply to many other fisheries as well. Also keep in mind that MSY for ABT in the western Atlantic is highly con-

roversial with diverse estimates ranging from 2,800 metric tons to as high as 13,000 metric tons depending on the scientist and models employed.

The mature bluefin is a large predator that probably is safe from most predators except people. Size does matter. However, getting to that size is not easy. Tunas produce a large number of very small pelagic eggs, which hatch into larvae that develop into juvenile tuna an inch or so long over the course of a few months. More than 99.9% of these eggs will not become juveniles because the eggs fail to hatch, are eaten, the larvae die because they cannot find food in their first few days of life, or they are eaten, or die due to unfavorable environmental conditions. Another very large percentage of the tunas that do survive to become juveniles will die before they reach the age of one year, either through predation or starvation. And the modelers predict that two thirds of those that do survive to age one will die before they reach maturity. All this is in the absence of any mortality due to fishing.

In nature, for tuna and for most fish, the greatest mortality occurs in the first few weeks of life. During this time man plays a minor direct role in their survival. Exceptions occur through habitat loss or degradation and pollution. Indirectly, however, man plays a major, but difficult to quantify, role in survival. This role can be both positive and negative. On the plus side fisheries for other species such as filterfeeding sardines, menhaden and herring may enhance survival of the eggs, larvae and juveniles. The destruction of marine birds and their nesting sites may reduce juvenile mortality, and fisheries for other predators such as billfishes, sharks and small cetaceans that prey on tunas or compete with them for food may result in a decrease in natural mortality for larger tunas. On the minus side, habitat loss, pollution and fisheries on forage species may reduce the food available for the tuna and increase natural mortality, or retard growth and reduce spawning ability.

Clearly, these interactions are too complex to hope to understand them or model them in any meaningful way. But some are potentially so great that for certain species they clearly need to be considered when devising rebuilding plans and setting targets. In the case of bluefin for example, there is more than theoretical reason to believe that the reduction in forage species such as sea herring, butterfish and squid will affect availability of the fish on traditional grounds such as the Gulf of Maine and southern New England and the northeast Atlantic.

These kinds of interrelations should be a concern in the management of all exploited species of marine resources. None of our resources are unexploited. Whatever equilibrium, if there was one, that might have existed three centuries ago no longer exists. *It is impractical to believe we can go back to MSY for all US fisheries in any reasonable time period.* For one thing the data base we have available to estimate MSY is from a time when some species were already well below MSY. Thus the estimate of MSY is likely to represent some other equilibrium level than "true" MSY. Also, one needs to consider if it is practical and possible to set MSY goals for all our fisheries without allowing for the interspecific interactions. For example, how will taking MSY for Georges Bank herring affect the MSY for Atlantic bluefin tuna, whales, and bluefish? What will happen to lobster production if halibut rebuild to MSY? What will the impact on cod and haddock recovery be if a new spiny dogfish plan increases the abundance of these voracious predators of juvenile groundfish?

We realize that these comments are not particularly helpful in an immediate sense, but we hope that this concept of species interaction and the improbability of simultaneous MSY achievement for interrelated stocks can be expanded in the upcoming legislation. It may be that further thought should be given to de-emphasizing MSY as the goal and working instead to develop optimum yields that reflect more than maximizing the yield from single species fisheries.

Unfortunately it may not be possible to use this approach for the highly migratory species that are currently subject to some sort of international management treaty. For example with ICCAT the management goal is MSY in the strict sense. But this does not mean that the assessments cannot consider the possibility that MSY can change because of extraneous factors including fisheries for other species, major regime shifts, etc. that are outside the purview of ICCAT.

Our last point on the subject of MSY or any other target to define overfishing or to serve as a rebuilding goal is to point out that there is a remarkable lack of accountability on the part of NMFS and serious lack of independent peer review in the assessment process. This lack of accountability produces frustration and a sense of helplessness for fishermen who can believe strongly that the science on which the regulations are predicated is flawed. These situations are not isolated events now or in the future. In 1997 the National Academy of Sciences concluded that NMFS stock assessments are likely to be wrong 25% of the time. This may account in part for the recent plethora of lawsuits against the agency.

We suggest that the Committee address this issue of lack of accountability and peer review in the NMFS stock assessment process by considering a two part amendment:

(1.) a scientific and management oversight provision/mechanism that requires a continuing review of the type, amount and quality of data that will be used in the assessment process. We suggest that this should include a directive to NMFS to form an industry-agency cooperative to collect and examine data; and

(2.) a review provision that provides for independent arbitration in the case of disputes involving the science of NMFS stock assessments with the arbitrator having the discretionary authority to call for a formal review by the National Review Council (or other non-NMFS competent and neutral scientific organization) in cases where the disputes cannot be resolved by other means.

Finally, we have a number of additional specific administrative suggestions to improve continuing HMS management as it is evolving under unique Secretarial authority and with assistance from the ICCAT Advisory Committee and domestic HMS Advisory Panel. Some of these changes may also require technical amendments to the Atlantic Tunas Convention Act and other legislation as the case may be.

A. Compensation for the ICCAT Commercial and Recreational Commissioners.

We believe that the time, effort and responsibilities of the ICCAT Commissioners has seriously increased over the last several years as the management responsibilities and international negotiating efforts in pursuit of international rebuilding plans have intensified for most highly migratory species. Clearly, the role these individuals assume and their responsibilities as Presidential appointees warrant compensation for the considerable time and extended overseas and domestic travel required to carry out their duties. We believe that compensation at least equal to that of regional council members or equivalent to the daily rate paid the federal ICCAT Commissioner is appropriate.

We believe that consideration should also be given to compensating the ICCAT Advisory Committee Chairman as well given the expanded role and duties in recent years.

B. Extension of Commissioner Service to 3 Consecutive Terms Consistent with Council System.

We believe that the terms of the ICCAT Commercial and Recreational Commissioners should be extended from the current maximum of 2 to 3 consecutive 3 year terms as is the existing case for regional fishery council members. We note, in particular, that with respect to the foreign delegations at ICCAT there appears to be no such term limits in effect and that such continuity in the delegations can offer strategic advantages at the negotiating table. The rebuilding plans for most highly migratory species are likely to be longer than most domestic fisheries and there are obvious benefits from having institutional memory and continuity at the Commissioner level during the process of continuing refinement of conservation agreements.

C. Establish a Waiver of Conflict of Interests under 18 U.S.C. 208 for Commissioners.

The number of individuals with experience, qualifications and expertise to carry out the responsibilities and duties of ICCAT Commissioners for the private sector are limited. Typically, many of the potential candidates will be active in the fishery or otherwise have a direct financial interest in the affected industry. To adequately represent the interests of the fisheries requires a substantial direct knowledge of the fisheries and a continuing commitment of time beyond that required for official meetings. Anyone with the requisite knowledge and experience would almost certainly be active in the fishery or have a direct interest in the fishery. The same holds true for council members and that is why Magnuson-Stevens Act provides an exemption from the Section 208 conflict of interest law. Commissioners should be treated in the same fashion as regional council members.

Senator SNOWE. Thank you. Don.

STATEMENT OF DONALD PERKINS, PRESIDENT, GULF OF MAINE AQUARIUM DEVELOPMENT CORPORATION

Mr. PERKINS. Representative Snowe, thank you for the opportunity to testify here. My name is Don Perkins, and I'm President of the Gulf of Maine Aquarium Development Corporation. I also serve as the public member of the Maine Department of Marine Resources Advisory Council. I note that my employer, the Gulf of Maine Aquarium is not an advocate to the organization. We are an education, research, and explicitly a neutral forum for aquatic conflict and research, and so I kind of come to this from a neutral

point of view, but I further note that I'm not here speaking on behalf on my employer but as an individual.

Having said that, over the last few years we have been involved with the herring industry that was bitterly divided 3 or 4 years ago over allocation issues, and we've been involved with industry. We had a clear recognition that there was a need for research priorities, not just that they the industry developed and not just that the state developed or that NMFS developed, but there was a need for consensus around a set of research priorities so that everybody has their ownership of them.

As Pat Kurkul indicated, there have been some very interesting work that's grown out of that industry and science effort, state and Federal. It's led now to over \$1 million in new funding. It's a mix of state, Federal, foundation and industry funding coming into that research need that just wouldn't have come had those various parties not come together and put those resource together.

So what I want to speak to you today, first and foremost is the issue of cooperative research for a joint industry science research. Section 404B of the law states that the secretary shall develop a strategic plan for fisheries research and goes on to define that. Section 402(e) provides the Secretary may use the private sector to serve a fishery resource, etc., underline may.

I want to suggest two specific changes. The first is to amend 404(b) to require that the fishing industry be involved as equal partners in establishing research priorities. In my experience, industry just has enormous, and we all know this, industry has enormous insight, experience, wisdom, hard won knowledge that just does not get represented in the process of establishing priorities in the process of planning research projects and the process of reviewing results of research projects.

And we've just seen that in the herring—it's a narrow example—but in this herring effort over and over again vessel captains, deckhands, processors, have had fundamental insights to contribute that have led to the formation of research projects that are going to make a difference. And this is not a knock on NMFS or the science. In fact, when we started this process, because everybody gets involved in this process I expected that NMFS would not be supportive of another entity talking about research or industry focusing on research, but in fact NMFS has been terrific working with this effort.

It's the funding—the Maine Sardine Council went to Washington and with your help and other's help there was funding made available for this hydro acoustic work. NMFS is developing that capability internally. They supported us to develop that capability with fishing boats. They support other entities, the Isle Institute and other entities here in the state to do other innovative research.

So the message here is that NMFS has been a terrific partner in this and we appreciate their support. But this issue of getting industry playing an equal role, equal role in defining research priorities, I think will have a profound impact on the thoughtfulness of those priorities and in the thoughtfulness of the way they're implemented.

The other thing I'd note is that this process of defining priorities everybody buys into has a way of getting other parties besides the

Federal Government to belly up to the bar and put money into research. The herring industry has put substantial money into research and is contributing at this point hundreds of days of vessel time. If it was a research vessel that would cost \$15,000 a day, and a fishing vessel is valued \$1500 a day.

There's enormous new resources coming in to support research rather than just Federal dollars, and I think that part of this having everybody at the table defining research priorities in essence defines a market for research that sends a signal to other planning sources, it sends a signal to entrepreneurial scientists and state institutions, Federal institutions, non-profits, and they just generate a lot of new research activity that wouldn't otherwise happen in a centralized, only federally funded, only federally research prioritized effort.

The second thing I'd speak to is the economic data, and this has been mentioned before but quite simply the question of economic impact is a huge question. We've all seen various economists show up here in Maine to do studies in the last 3 or 4 years, and I've heard numerous people say that they come to the same people. They tend to come to the larger ports, they tend to go to the more visible fishermen, and they get insight from those people, but they miss entire fleets, they miss fleets that were here 3 years ago and are gone today. There's a lot that gets missed.

When it comes to either implicit or the explicit trading off of economic impacts, we get burned here, because the coast is spread out, because the communities are hard to get to, and so I would urge that in Section 404, and clearly NMFS is already doing it, but I would urge that there be specific language defining the standards for socio science research be defined in writing, particularly for economic research that would ensure an adequate sampling and evaluation of fisheries of communities current and recently passed.

The issue of sampling is a critical, critical issue, and economic research done without that kind of sampling is misinformation. It doesn't help, it confounds difficult decisions. The last thing I'd say is that I've worked in the private sector in the past and in that sector that part of the economy deals with problems every day. It deals with international markets, it deals with things that go wrong, it deals with inadequate information, and one of the things that happens in that part of the economy is there's an enormous amount of innovation, and big companies foster innovation, they let people go off and do it in the back room after hours.

If there's a certain stock biomass target that the current system has, assuming that this would be delegated to this entity, that it defines how some entity could propose this. They'd also have to define how the scientific advice would be secured, what Federal entities, industry interests, and other public interests had to be represented, and last, what entity would have approval rights of this.

Obviously that may be the Secretary of Commerce, but there's got to be some structural way to allow for innovation and experimentation because otherwise we're just not going to prototype in trial and error at a smaller scale solutions that might answer kind of bite size the huge problem that we've spent the last hour talking about and we're going to spend the next however many weeks talking about. Thank you.

[The prepared statement of Mr. Perkins follows:]

PREPARED STATEMENT OF DONALD W. PERKINS, JR., PRESIDENT, GULF OF MAINE
AQUARIUM DEVELOPMENT CORPORATION

Madame Chairman and members of the Subcommittee, thank you for inviting me to testify on the implementation and reauthorization of the Magnusen-Stevens Fishery Conservation and Management Act. I am Donald W. Perkins, Jr., President of the Gulf of Maine Aquarium Development Corporation and the Public Member of the Maine Department of Marine Resources Advisory Committee, an appointed body that represents Maine's fishery and public interests in the final review of Maine's fishery management regulations before they are implemented.

As context for my testimony, I would also note that: (1) the Gulf of Maine Aquarium has a mission of educating the public about Maine's aquatic resources, facilitating marine research and serving as a *neutral* forum for Maine's aquatic interests; (2) we have served as the neutral forum during the past four years for Gulf of Maine herring fishermen, processors and state and federal scientists to develop and implement research priorities; (3) we have recently initiated a similar forum for Maine's groundfish industry and science interests to develop research priorities; (4) though I will testify based on our experience as a neutral convenor, I would like to make it clear that my testimony represents my personal views and that I do not speak on behalf of my employer.

During the course of these hearings, you will hear extensive testimony on a variety of contentious issues such as whether Average Maximum Sustainable Yield of a complex of species should replace Maximum Sustainable Yield of individual species or whether to relax or strengthen Essential Fish Habitat language. I would like request your attention to two issues that are mundane, but will have profound effect on whether Fishery Management Councils have adequate information to make sensible management decisions, regardless of the legislative outcome on more contentious issues.

1. Joint Industry/Science Research Priorities:

Section 404(b) of the Fishery Conservation and Management Act currently requires that the Secretary "shall develop . . . a strategic plan for fisheries research. . . a comprehensive program with a limited number of priority objectives [in the areas of fishery conservation and management; conservation engineering; social, cultural and economic relationships; and information management]. . . indicate goals and timetables. . . provide a role for commercial fishermen in such research. . . and provide for collection and dissemination in a timely manner. . . and provide for coordination with affected States and other research entities."

Section 402(e) provides that the Secretary "may use the private sector. . . to survey the fishery resources. . . when such an arrangement will yield statistically reliable results. . . may compensate a contractor for a fishery resource survey by allowing the contractor to retain for sale fish harvested during the survey. . . may provide compensation by permitting the contractor to harvest on a subsequent voyage and retain for sale a portion of the allowable catch of the allowable catch of the surveyed fishery. . . may permit fish harvested during such survey to count toward a vessel's catch history. . . [and] shall undertake efforts to expand annual fishery resource assessments in all regions of the Nation."

I would suggest two changes to these sections:

A. Amend Section 404(b) to require that the fishing industry be involved as equal partners in establishing research priorities, and

B. Amend Section 402(e) to require that the Secretary shall use the private sector to survey fishery resources, etc.

Our extensive work with the herring industry and state and federal herring research interests has demonstrated that industry has enormous insight and resources to contribute to the development and execution of a relevant, effective fishery research mission. Moreover, a fishing industry that is vested and involved in executing a research mission is likely to support the results. Our initial work with groundfish industry/science interests and others' work with lobster industry/science interests confirms our experience in the herring fishery. A disciplined legislative nudge by the next generation of the Fishery Conservation and Management Act will insure that existing federal institutions commit to and follow through on taking advantage of the fishing industry's experience, insight and resources to improve and expand the Nation's fishery resource assessment capabilities.

2. *Economic Data:*

During the past several years, we have seen social scientists appear in our communities on a periodic basis in the course of their sociological or economic research on the fishing industry. In Maine where fishing communities are relatively small and spread out over a large area, these researchers tend to focus on the most visible, accessible fishing interests who are the easiest to characterize from a social or economic point of view. As a result, they miss entire fishing communities and entire fishing fleets, both current and recently past, in the course of their analyses. Thus these communities and fleets are totally ignored during explicit and implicit economic impact discussions that occur during the course of fishery management council decisions.

To insure that Maine's fishing communities and vessels are adequately characterized from an economic point of view, I would suggest the following changes:

A. *Add language to Section 404 that requires the Secretary to establish written social science research standards (particularly pertaining to economic research) that will insure sampling and valuation of all current and recently past participants in a fishery, regardless of how visible and accessible each sector may be, so that each participant's value and the economic impact of management decisions on each participant will be more fully considered.*

B. Amend Section 402(a) to allow a Council to collect confidential commercial or financial information regarding fishing and fish processing operations, provided that adequate confidentiality safeguards are established, in order to allow for effective economic characterization of subject fisheries.

I would also like to encourage your consideration of amending the Fishery Conservation and Management Act to allow for experimentation in how federal fisheries are managed. We have all listened to and been party to the demonizing of fishermen, federal scientists and federal fishery managers during the endemic fishery crises of the past fifteen years. Regardless of such hype, I am continually impressed by the deep and honest desire each of these parties has to find a better way to manage our fishery resources. Thus the Act should provide the opportunity to innovate under controlled circumstances, (just as any successful private sector enterprise supports the development of new products or sometimes even entirely new businesses that cannibalize the old business, and, in doing so, insure the success of the enterprise).

3. *Experimental Fishery Management:*

Add a Section to the Fishery Conservation and Management Act that defines the means for planning and implementing innovative fishery management experiments for federal fisheries. Key components would be: (1) how to identify the geographic scale of the experiment and the affected harvesters; (2) how to define measurable performance standards to monitor performance against subject fishery stock status and cease the experiment if it is not achieving its objectives; (3) how to provide the relevant stock assessment advice; (4) what federal entities, industry interests and other public interests must be represented in the experiment; and (5) what entity (presumably the Secretary of Commerce) would consider proposals for fishery management experiments.

In the event that there is serious interest in developing such language, we would be interested in assisting in its development.

Thank you for the opportunity to testify and I would be happy to answer any questions you or members of the Subcommittee may have.

Senator SNOWE. How do you think we could encourage that in the Act?

Mr. PERKINS. I think that getting a group of people together who have had experience with people in NMFS, people out of industry, people on the management side to suggest a framework for a set of specific objectives. For such an experiment, you need to propose, and anybody could propose this, but they'd have to go get the support of industry and science and other parties.

But you define—the key issues are defining the geography, defining the affected parties, defining how you're going to get the scientific advice, because that's a huge problem, defining how you're going to measure success and allow for the fact that if it isn't working you'll kill it. A bad experiment is a bad experiment.

But this is done in companies all over the world every day. It's not something that's impossible to—it would complicate an already complicated situation, but if defined tightly experimentation is a good thing.

Senator SNOWE. We're going to have to figure out how to encourage that and to acknowledge it. I see you make a very good point, because companies do that every day, and the question is whether or not you could acknowledge that kind of experimentation because it would be very helpful and it would certainly inspire innovation. You're talking about identifying specific problems and techniques that the Agency, the government and the state governments could use to solve the problems. Is that what you're suggesting?

Mr. PERKINS. A good example, the lobsters. Right now, we have a big experiment in the management of Maine lobster fisheries. That's an example of an experiment. And I'm not suggesting things of that scale necessarily, but it's not something that couldn't be done.

Senator SNOWE. No, but that's a very good example. It is making a sea change in implementation to be sure. There's no question about it. But you're right, not to discourage that. I think it's a very interesting point, and it could be through public-private partnerships, or it could be all private.

Well, that's something I'd certainly like to work with you further on. There is a way of doing that in the Act and recognizing it. I want to thank all of you for your comments. I would like to again explore the issue of flexibility.

That's what I keep hearing over and over again from a number of different perspectives. For example, the stock rebuilding requirements and several definitions that, Rich, you referred to in the letter that we sent to the agency last year. And the fact that we still have not seen the Agency change those definitions in any appreciable way that would demonstrate that there is this sort of flexibility in the Act. The question is, How do we change the Act to recognize it?

I know, Rich, you mentioned eliminating these interpretations by the Agency. I don't know if it's possible, but what specific changes to the existing law would invite more flexibility in the interpretation?

Mr. RUAIS. Well, I wish I had the ultimate answer to that question, but we thought that when several of the committee members signed on to that congressional clarification that indeed Congress was providing adequate congressional intent that this is how the National Standards should be and the guidelines should be interpreted.

Failing that, and it's clear I think that many of the lawyers at NOAA do not like to use Congressional clarifications after the initial legislative history is complete.

At this time I think maybe the Committee and the Congress are going to have to get more involved in a manner that you don't generally like to do and that is to almost micromanage on this issue. I think the language is going to have to be crafted extremely carefully, by your lawyers, in fact, because that's where the problem stems from. From our perspective, the NOAA lawyers are not interpreting these provisions to provide the balance and flexibility that

you put in the SFA. And I think that the Committee is going to have to work again to establish the balance and then put it into proper statutory language, from which there can't be any confusion.

It's unfortunate if we have to do that, but those of us that are in the trenches every day dealing either with councils or in my case with the ICCAT Advisory Committee and the various state groups that are involved. It is very difficult for us to be dealing, particularly with some environmental groups, when they have an interpretation that we know is not reasonable at all and certainly not justified by the legislation, particularly in light of the January 28 clarifications by many of the senior Senators that wrote the legislation and are responsible for it.

I guess all we can ask is that you take another shot at it and this time make it as crystal clear as possible. Our suggestion is to look at National Standard 8 to see what can be done there to make it a higher priority in light of these adverse economic impacts and the need to minimize them and the need to ensure sustained participation of fishing communities. Somehow we've got to set a priority that now that we have the Sustainable Fisheries Act and we are making progress rebuilding we need to be sensitive to avoid impacts. I think we heard Ms. Dalton again confirm here and in Washington, that there are 52 amendments that have been submitted across the country that are all moving us in the right direction of rebuilding.

We still have problems, clearly, but I think it's also clear that SFA is not going to allow any backtracking, any significant backtracking anywhere. Our view is that once the fisheries reach the sustainable levels, we need to have some flexibility so that we don't just simply throw people out of work because of an arbitrary time limit.

Senator SNOWE. And you think that just from your observations since the Act was implemented that the Agency does not sufficiently consider the economic impact? Have you seen any evidence that they have tried or that they have?

Mr. RUAIS. In my experience we had a hard time when we were working on what the U.S. position was going to be at ICCAT in terms of rebuilding plan for Atlantic bluefin tuna.

Senator SNOWE. You mean the 10 years versus the 20 years?

Mr. RUAIS. Right, and whether the SFA was going to mandate that the U.S. position be a rebuilding plan in 10 years or less, or we would have to object to any international agreement that specified a longer timeframe. We weren't getting any clarification from the NOAA attorneys at that time that there could be a reasonable interpretation of the Act.

It came to be that it was resolved in a favorable light in our situation, but it certainly was a daunting 12-month process. Now, as I did mention in my written testimony, we've got a challenge coming from one environmental group that is unhappy with the length of the rebuilding plan and some of the objectives of the plan, and they are challenging this international plan using the domestic mandate as they interpret it through the SFA.

Senator SNOWE. Your concern is that our domestic fishermen would be required to meet one standard and foreign fishermen would have to meet a lower standard?

Mr. RUAIS. Exactly. I think that that is the history of most highly migratory species treaty agreements. Somehow the United States always ends up doing more than other countries. And in some cases, many fishing groups don't mind doing more. But I think we found that leading with your chin at ICCAT sometimes is not the way, if your goal is to get a fairly comprehensive long-term plan, that everybody is cooperating. This is critical because in all major highly migratory species—the United States is having a relatively insignificant effect, either in terms of catch or fishing mortality. So you need all countries participating to be successful and fair.

It's just the reality of the way the fisheries operate in the Atlantic and Mediterranean and the nature of these highly migratory fish. They are only in our areas for a short time, and we have a very limited high seas capability. We can't do rebuilding alone and certainly we need a domestic act that recognize the international component.

Senator SNOWE. And that's one of your recommendations for change. Yes, Pat?

Mr. WHITE. A couple of things. I guess I'd like to reiterate what Commissioner Lapointe said on the maximum sustainable yield requirements in the Act. There are a lot of things that need to be considered in evaluating what species are important, both economically and their level of importance in the ecosystem. It's like you have a bowl of cereal. The bowl is only so big and you can only get so much cereal in it and there are some cereals that are better than others and you can only put so many prunes in it.

But you can't rebuild every fish, every species out there, to its maximum sustainable yield. It just isn't physically possible and it's mandated in the Act. It isn't going to work.

The other thing I'd like to emphasize again is, and it says it throughout the Act, in consultation with industry. In the past in many, many instances it just hasn't happened, and I think this needs, for this to be made to work, any of these management plans, it's got to be in partnership with industry and science. It's the only way it's going to work, in my estimation.

Senator SNOWE. And so there has not been sufficient consultation with industry?

Mr. WHITE. I don't think so.

Senator SNOWE. Can you give me an example of where you think it's really been deficient?

Mr. WHITE. It was a frustrating—I'm a recovering New England Council member, and it was a very frustrating process there to see the industry advisory groups and the species advisory groups that weren't necessarily comprised of a balanced representation from the industry, but also the lack of number of times that their advice was taken. And I think both things need to be fixed. I think the advisory panels need to be better balanced and somehow through that process they've got to work, the Council has to work, with those advisory groups and appreciate what they have, even if it's anecdotal.

Senator SNOWE. Who creates those advisory panels? Does the Council itself?

Mr. WHITE. Yes.

Senator SNOWE. And there are no standards for the composition of those advisory panels?

Mr. WHITE. Well, I think it's a chicken and an egg situation, Senator, because I think a lot of times because the advice isn't taken that a lot of good people don't want to waste their time being on an advisory panel, so consequently their advice isn't there and I think both things have to be addressed.

Senator SNOWE. Even though there may be these advisory panels, the Council does not generally consider the advice that's been given by the panel?

Mr. WHITE. Right. And I think we've done—I can say we because I'm a Commissioner—but I think industry has been far more involved in the process there with lobster management at many, many levels. It's not perfect by any means, and it's in constant need of upgrading, but I think it's a lot better example of industry and science involvement, because they're all involved initially. It doesn't go through this hierarchy of well, industry says this and then it goes through another review. They're all sitting at the table at the same time.

Senator SNOWE. It's interesting you mention that, and it's obviously what Commissioner Lapointe was discussing as well, is that Atlantic State Marine Fisheries Commission seems to enjoy a high level of support in the work that it does compared to the Council's work and the problems that have developed. So I'm interested in that and trying to figure out what the Atlantic State Marine Fisheries Commission does so well that the Councils haven't been able to get that kind of confidence in the process.

Mr. WHITE. Well, I—

Senator SNOWE. If you don't involve people at the outset, you lose them eventually, because by the time you bring them in, people are predisposed to their positions. They've already developed their perspectives, their opinions, and their positions. It's hard to change that. You have to bring them in at the outset in order to get that involvement.

Mr. WHITE. I think the process that they use is better, but in defense of the Council, the ASMFC has been a growing process, and I think they've been able to work on mistakes as they go along. An awful lot has been thrown at the Council and they have a lot more species that they all of a sudden have to manage and it's totally process management and it will never succeed under that.

Senator SNOWE. Which gets back to the issue for Maine's industry, losing a seat on that Council, an issue that I raised with the Secretary.

There's a reason that Maine has two at large representatives on the Council. The workload and the size of this industry and the decisions that are made which affect our particular industry are important. The number and complexity of issues that come before the Council that affect Maine's industry given the size of it. So there's no question.

Well, that's something I'll explore further because I think we need to invite that involvement. I certainly agree with you. I think that the decisions that have to be made by the Councils are enormous, and maybe there's an impracticality in the law that we have not recognized, and we should look at it.

This whole suggestion that Commissioner Lapointe made and you just referred to on setting priorities in the management process with respect to various species. He was differentiating between high abundance and low abundance. You can't manage every species at the maximum sustainable yield.

How do you make those decisions? Because obviously it would affect some industries positively and others adversely. So how would the Council make those decisions? How would NMFS make the decisions?

Mr. WHITE. I wish I had the answers for you and I don't, and I don't pretend to. The learning experience that I had being on the Council put me further behind than I was when I started, I think.

But one thing I would like to address is that I think maybe the spectrum and the area that the Council has control over and the fisheries that they have control over is too large, and by breaking that down into smaller subsections, maybe something then would be easier to address.

We've been trying to do that in the lobster industry, to have north of the 42 degree line be one manageable ecosystem, that type of thing; and I'm not here to make recommendations at all because that's up to people in groundfish, but it does seem the areas that they have to manage and the number of species that they have to manage for one body is just—they'd be better as an overseeing body and break it up.

Senator SNOWE. Is it based on stock assessments? When the Council begins the process, the management plan, is it based on the stock assessments that they get to make their decisions?

Mr. WHITE. And working under a definition of overfishing as mandated under the Act.

Senator SNOWE. And those definitions changed in the 1996 Act and created a number of problems as well. That was based on the letter that we sent to Terry Garcia, because of the way in which they defined "overfishing" and "overfished," it has created problems in the interpretation and the implementation of the Act. Do you think most of the problems today result from the 1996 changes?

Mr. WHITE. I think that was the catalyst to it, but I don't know as it all began then.

Senator SNOWE. Rich, do you?

Mr. RUAIS. Well, I think we're in the early stages of trying to work out the bugs of the major change in direction that SFA mandated we do, and that's why we certainly appreciate these hearings, so we can begin to fine tune it. I think I agree completely with Pat when he says that you can't bring all of these species back up to MSY. And your question about who makes the decision as to where the levels are going to be is part of the crux of the problem.

From our perspective, for example on the herring front, we are concerned that herring catch levels are going to reach the MSY level any time soon because of the unknown impact that that is going to have on bluefin tuna fishermen. We've seen in the last few years—since around 1993 as nontraditional herring fisheries have developed, we've seen a serious drop in the catch of bluefin tuna by Maine fishermen. The current catch is way down from the traditional 52 percent share, in fact. And that's a concern. And these are

the kind of interactions I think Ms. Dalton was talking about and that nobody has a good handle on them.

Frankly, we are in, to a great extent, uncharted territory, and we're going to have to go slow. That is part of the reason why we need this flexibility because I think we're going to need to proceed slowly as we bump into these interactions between stocks and fisheries and that can be quite devastating.

Senator SNOWE. Is the interpretation of maximum sustainable yield too rigid? Should that be revised?

Mr. WHITE. Yes, because we're working under single species management, so you're doing MSY for every single species and not regarding the interaction that it has with every other species.

Mr. RUAIS. I think there are some benefits to using MSY because it is a fairly simple thing for most people to wrap their mind around. But I think in the original FCMA there was a need to rely on the concept of optimum yield because of problems, especially in mixed species fisheries, of trying to get maximum sustainable yield from interrelated stocks of fish.

I think the original law provided more flexibility so that you could deal with these things more easily. I'm not sure now whether it's a de-emphasis or what that's needed on MSY, but from our perspective hopefully the reauthorization will provide more appreciation of the complexities of trying to manage all of the stocks and the physical improbability that you're going to raise all of the stocks to some MSY level any time soon.

Senator SNOWE. Maybe it is so overwhelming that it's almost difficult to focus on some of the severe problems in an effective way. You look at the groundfish issue and just what the groundfish industry has gone through this year. And still one more decision process is ahead of us and the question is how best to do it in a way that doesn't send the wrong message about making sure that we're still preserving the stocks but doing it in a way that allows flexibility.

That's the best way to introduce flexibility into the Act, to change those areas?

Mr. WHITE. I think that's a start. I think—all these fisheries are cyclical, Senator, and to try and focus on getting them all at the same level at the same time is just not a practical manner.

Senator SNOWE. And you think that's what happened by introducing the maximum sustainable yield concept in the 1996 Act?

Mr. WHITE. Yes, as a total focus.

Senator SNOWE. That's an interesting point. Well, that's something that I will certainly explore as we go on. I'm sure we'll hear this again. I heard it in the July hearing in Washington, the same issue, and—is that also in terms of the timeframe for rebuilding the stock as well? Whether or not 10 years as the absolute maximum? Has that changed from prior to 1996?

Mr. RUAIS. Clearly the 10-year timeframe was brand new. It was a new creation in the SFA. Prior to that, there was no absolute deadline aside from the overall goals of reaching optimum yield from the fisheries.

And I think it is—a root of the problem is that we have what's being interpreted as an absolute maximum timeframe across the board, and I don't think that the understanding and data are here

for ecosystem management. For us to rush this process there will be some serious economic consequences that I don't think anyone could even predict.

Senator SNOWE. How do we elevate National Standard 8? And there was a suggestion perhaps under the Regulatory Flexibility Act that requires some of the agencies to assess the impact on small business, the same should be true for NMFS in assessing the changes on the fishing industry. And perhaps that's one way of doing it so that you have an analysis of exactly what will happen to the fishing industry and the communities in which this industry is located. Obviously, it certainly hasn't been perfected yet, and in some cases disregarded, I gather.

Mr. WHITE. But there again, isn't that an interpretation? I mean, so you do an economic analysis which Ms. Dalton says they haven't had the manpower to do but now they're working on it, so we get an economic analysis of how something affects a particular species. What do you do with that information? There's got to be a practical application to it. I don't see that written in.

Senator SNOWE. Well, that gets back to what Don's saying, too, about innovation. I mean, that's another area as well to encourage various groups to be involved in that process. And as a result of the GAO's hearing, we will have a better understanding of how we need to change that so that it is part and parcel of the process. These standards are supposed to be included in the process, but somehow it's being excluded or not considered.

I think, with the groundfish fishery this year, that was certainly the case as it related to Maine's industry. Ultimately the changes were achievable but nevertheless they were not easy.

Data management, I gather, again, the use of observers, Don, is a very good way of getting information. Would you think that that is something we should be focusing on in the reauthorization process?

Mr. PERKINS. I think—one quick comment on your last point.

Senator SNOWE. Yes.

Mr. PERKINS. On the economic side and that is it would be very helpful to introduce that in, but it has George's point of we need to look at where Standard 8 has been elevated in other comparable situations and whether it had the desired outcome or not. We don't want to create another level of bureaucracy. And last, having the money to execute on that effectively is critical. If there's not the resources to do that work, then it's just going to further compound a messy situation.

Senator SNOWE. We have to identify what the problem is. And you're right, it's not at the exclusion of everything else and certainly not the preservation of fish stocks. It's a question of including it in the decisionmaking process.

I think frankly the plan, any management plan, will have the confidence of the people it affects if these issues have been considered. Going through this whole groundfish issue, and I raise it again and again because I think it does illustrate the crux of the problem, you don't invite confidence by going about decisionmaking with the groundfish industry as they did this year. It does not inspire confidence, and that is a huge problem with this process.

When you have a decision that came about in the way that it did, it adversely affected the groundfish fishermen in Maine. And so I think for that reason alone we have to look at ways in which to make sure that all these issues are considered in a timely fashion up front, not in an ad hoc fashion, but together in a coherent way. This will invite confidence in the overall decision that's made so that everybody shares in the ultimate decision, but so they know that the best information was included in that process. And clearly we don't have the most up to date science involved in these decisions.

And often time the fishermen are out at sea and they've seen it and they know what the status of a particular species is and it doesn't square with the information that the decisionmakers are using in developing a plan because their information has been outdated.

Pat, you raised an interesting point about including a representative of the lobster industry in the New England Council. I think that's, considering 28 percent of the value of the fish landed in New England is lobster, and there's not one representative from that industry in the New England Council?

Mr. WHITE. Not anymore.

Senator SNOWE. Not anymore.

Mr. WHITE. We have recommended one from the State of Maine. The Governor had, who would have made an excellent candidate in my mind.

Senator SNOWE. We will also evaluate that as well in the process. Are there any other comments that you care to make? Is there anything else that you think is important for us to note in this reauthorization? This won't be your last time. This is just the beginning of the process.

Mr. RUAIS. I did want to comment to your earlier question about what do you do with National Standard 8. One of the things that we're asking you to consider is to adopt a principle or concept that once a fishery has reached a sustainable level, when it is not declining anymore and not facing any imminent risk, that at that point you consider establishing the considerations of National Standard 8 as having a higher priority than the remainder of the SFA. This should be especially true regarding the 10-year maximum timeframe.

So that if you have identified a fishery as being in a sustainable condition, that the considerations in Standard 8 are higher or more important. I'm not saying that you then do away with any kind of a timeframe, but you don't find yourself in the ridiculous situation that we found ourselves already with cod and we may find ourselves in the future with other fish as well.

Senator SNOWE. And do you think that's the only way that we would be able to accomplish that goal?

Mr. RUAIS. Well, I don't know if there are other ways. I'm sure that as you go around the country you might hear some other unique solutions, but that's the one that we're suggesting.

Senator SNOWE. You think it's absolutely apparent since the changes in the 1996 Act that NMFS and the Council have not considered Standard 8 in the decisionmaking process?

Mr. RUAIS. Right. I think that there continues to be a conviction within the agency that 10 years is inviolate and we absolutely have to abide by that regardless of any other extenuating circumstances and we think that's wrong.

Senator SNOWE. Pat, one other question I did want to ask you. On habitat protection, the limitation I inserted in the Act a few years ago on the limit on draggers of 500 pounds—has that been sufficient to protect the lobster resource?

Mr. WHITE. It's made a big inroad into protecting lobsters and now with the addition of the 5 inch maximum in our area here we're able to protect the brood stock, which in our area, part of that was part of our species that they were targeting.

Senator SNOWE. Has it diminished the impact of dragging on lobsters?

Mr. WHITE. I think so.

Senator SNOWE. Are more measures necessary?

Mr. WHITE. Well, the rest of it becomes a lot more involved in the effects of certain types in certain areas, and I'm not advocating a ban on dragging by any means, because there are areas where it's a worthwhile method of harvesting, but there are other areas as we get more into this ecosystem and habitat management where we've got to be more careful of the type that's used. I think it went a long way to help them.

Senator SNOWE. It did go a long way to help?

Mr. WHITE. Yes.

Senator SNOWE. Now, you had mentioned the designation of the Gulf of Maine on the entire ecosystem. What's the impact of that kind of a designation?

Mr. WHITE. Well, ironically even though it's divided in the areas that are now currently being managed, the analysis is the Gulf of Maine, and yet we've divided it into two management areas. And truly by our tagging studies most all of what happens in the Gulf of Maine is all included. If a lobster takes a right hand turn at Cape Cod, we probably don't see him again, and so that really isn't part of our problem, but an awful lot of what happens within the Gulf of Maine is all dependent on something else.

Senator SNOWE. I want to thank you very, very much for your testimony and I know I'll be talking to you again in the future. I appreciate your thoughts here today and for coming to share with the Committee the recommended changes that you think would be helpful to improving this statute. So I thank you very much for your testimony.

Before I introduce the third panel, I wanted to acknowledge two legislators who are here with us today. Representative David Etnier who is the House Chair of the Committee on Marine Resources and a member of the State Legislature from Harpswell. Thank you for being here.

Deborah McNeal from Rockland who is also on the Committee of Marine Resources, thank you for being here as well. Jeff Monroe who is the city of Portland's Director of Transportation I appreciate being here. I just met with him on many issues. And Daryl Thorpe from Congressman Baldacci's office as well.

OK. I welcome the third panel. And I should tell the audience, that after this panel, we will have an open mic for anybody else

who cares to comment on the reauthorization process as well or any other issues concerning fisheries. I'd like to welcome Barbara Stevenson who is a Seller's Representative and member of the New England Fishery Management Council; Mr. Craig Pendleton, Coordinating Director of the Northwest Atlantic Marine Alliance, and a fishing vessel owner; and Pat Percy who is with Midcoast Maine Fishermen's Wives Association; and Peter Shelley, Vice President of the Conservation Law Foundation. I look forward to hearing from all of you today. I thank you for participating in this hearing today and we'll begin with Pat.

STATEMENT OF PAT PERCY, MIDCOAST MAINE FISHERMEN'S WIVES ASSOCIATION

Ms. PERCY. Good morning, Senator Snowe. Midcoast Maine Wives Association is very pleased to testify before this committee this morning. My name is Pat Percy, I'm a member and spokesman for the wives.

Maine was first settled in 1607 at Popham Beach. The main food source was fish. Today I live at Popham and we are still a fishing village. It is part of the 144 coastal communities found along our 3600 mile coastline. Much is known about the physical environment which fish populations and we share and exist. But the understanding of the social environment, the heart and soul, the spirits of hundreds of fishing communities and many thousands of fishing families on the New England coast is very limited. Our towns and the sights, the sounds, and the smell—yes the smells—in our coastal community have meant economic opportunity and security for our State.

After World War II the Northwest Atlantic was invaded with large factory ships from away scooping up whole schools of fish. The dismantling of community control and devaluating the local knowledge systems probably started with this war fleet invasion. The fishing industry thought we were safe with the adoption of the Magnuson Act. But we're not living in a perfect world and try as you may in Congress, it has not been a perfect act, which brings me to this hearing.

Here are some of our views with a special look at the 1996 amendment known as the Sustainable Fisheries Act.

First, we believe that almost every fishery management decision and interpretation of legislation relates to and is driven by that absolute known as maximum sustainable yield.

Since fishery management has not worked perfectly, it would seem prudent to rethink some of the basic ideas with which our fisheries are governed. My background is not a scientist, however, to work in my little piece of heaven my family and I have had to educate ourselves in all kinds of technologies and terminologies.

The best explanation for MSY for me are found printed in the May-June 1995 issue of *The Ecologist*. Their definition for MSY is "the maximum number of fish the fishery biologists consider can be removed every year from a fishery without stocks diminishing." Well, that may be true for a little while, however, fish are not static nor linear. Fisheries are dynamic and present a moving target so over the long haul the principal notion of Magnuson seems fundamentally flawed to me. Attempting to manage cod, herring and

dog fish, for example, all at an MSY level creates large, perhaps impossible, problems.

This inflexible flaw does not allow the Council to prioritize its management goals such as allow dog fish to be fished down to reduce predation on immature groundfish. Because of the language in the SFA the necessary principle of flexibility is no longer a tool afforded to the Councils which they must have to effect actions that take into account the dynamics to rebuild the stocks.

Frankly, the 1996 changes went too far in minimizing the consideration of economic impact in fishery management decision. I suspect this problem stems from the fact that the SFA changed the definition of optimum, specifically in this sentence, "is prescribed as such for the basis of MSY from the fishery as reduced by any relevant, economic, social or ecological factor." This change of definition for optimum is coming close to making the backbone of our State, 144 fishing communities, well, redundant. Yet, we are very resilient people, I find it amazing that this Committee is hearing a pretty unified voice for a change from the industry. There appears to be agreement from the industry concerning MSY and the problems it has generated for everyone. Fishermen have a natural optimism and a strong spirit, and we still have our hopes. Thank you, Senator.

Senator SNOWE. Thank you, Pat. Mr. Shelley.

[The prepared statement of Ms. Percy follows:]

PREPARED STATEMENT OF PAT PERCY, MIDCOAST MAINE FISHERMEN'S WIVES
ASSOCIATION

September 25, 1999

Midcoast Maine Fishermen's Wives Association (MMFWA) is very pleased to provide testimony before this committee this morning. My name is Pat Percy—I am a member and spokesperson for the wives.

Maine was first settled in 1607 at Popham Beach. The main food source was fish. Today I live there and we are still a fishing village that is part of the 144 coastal fishing communities found along our 3600 mile stretch off coast in Maine. Much is known about the physical environment which fish populations and we share and exist. But the understanding of the social environment, the heart and soul, the spirit of hundreds of fishing communities and many thousands of fishing families on the New England coast is very limited. Our towns and the sights, the sounds and the smells, *yes the smells*, in our coastal communities has meant economic opportunity and security for our rural state.

After World War II, the North West Atlantic was invaded with large factory ships *from away* scooping up whole shoals of fish. The dismantling of community control and devaluing of local knowledge systems probably started with this foreign fleet invasion.

The fishing industry thought we were saved with the adoption of the Magnuson Act. But we are not living in a perfect world and try as the Congress has, it is not a perfect "Act", which brings me to this hearing.

Here are some of our views with a special look at the 1996 amendments known as the Sustainable Fisheries Act (SFA).

First, we believe that almost every fisheries management decision and interpretation of legislation relates to and is driven by that absolute known as *maximum sustainable yield* (MSY). Since fishery management has not worked it would seem prudent to rethink some of the basic ideas with which our fisheries are governed. My background is not as a scientist, however to live and work in our little piece of heaven my family and I have had to educate ourselves in all kinds things an terminology's. The best explanation of MSY for me I found printed in the May/June 1995 issue of THE EGEOLOGIST. Their definition for MSY is: "the maximum number of fish that fishery biologists consider can be removed every year from a fishery without stocks diminishing". Well that may be true for a little while, however fish, are not *static* nor *linear*, fisheries are dynamic an present a moving target so over the long haul the principle notion of Magnuson seems fundamentally flawed. At-

tempting to manage cod, herring and dogfish for example—all at a MSY level—creates large, perhaps impossible problems. This inflexible flaw does not allow a council to prioritize its management goals; i.e. allow dogfish to be fished down to reduce predation on immature groundfish. Because of the language in the SFA, the necessary principle of *flexibility* is no longer a tool afforded to the councils which they must have to effect actions that take into account the dynamics to rebuild the stocks.

Frankly, the 1996 changes went too far in minimizing the consideration of economic impact in fisheries management decisions. I suspect this problem stems from the fact that the SFA changed the definition of “optimum”, specifically in this sentence: “is prescribed as such for the basis of MSY from the fishery, as reduced by any relevant economic, social, or ecological factor. . .”. This change of definition for “optimum” is coming close to making the backbone of our state, our 144 fishing communities, well, redundant.

Yet we are a resilient people. I find it amazing and encouraging that this committee is hearing a pretty unified voice from the industry. There appears to be universal agreement from industry concerning MSY and the problems it has generated for everyone.

Fishermen have a natural optimism and a strong spirit, and we still have our hopes.

Thank you.

**STATEMENT OF PETER SHELLEY, VICE PRESIDENT,
CONSERVATION LAW FOUNDATION**

Mr. SHELLEY. Thank you, Senator Snowe. It’s a privilege to be able to testify this morning for Conservation Law Foundation. My name is Peter Shelley, and I’ve had the valuable experience of being an observer of the New England Fisheries for about 10 years now, and it has been quite a steep learning curve for me and it’s still steep.

CLF is a member of the Marine Fish Conservation Network, and I know you’ve received testimony from the Network, and really that’s the more national scale. My comments today are going to reflect some of my sensitivities that emerge from a regional fishery scale.

On the SFA, I would reemphasize that the SFA amendments were the first major reconstruction of fishery management law in 20 years, and took fishery management in new directions that were very important to a lot of fishermen, and certainly the conservation community; directions that are necessary for the future of helping the resource including the habitats, including spelling out some statutory goals with more specificity such as bycatch, promoting different fishing practices.

Since the passage of the SFA—which was a couple of years ago—and implementing regulations and guidelines, there have been some very positive developments in the New England Council particularly. I don’t know if they’re driven by the SFA but I think demands placed by the SFA have made the point to the Council that it needs to become a far more professional, efficient working environment where everyone can speak without fear of violence, or the threats of violence, and I have to say just the institutional improvements in the Council have been really wonderful.

I think there are also some serious glitches. No observer up here in New England would say that the 30 pound trip limit on cod was a brilliant management decision, but a lot of fishermen supported that program before it went into effect and a lot of others said no, just close areas, don’t use trip limits as a management tool. So hopefully there’s been some learning from that. I’m not sure that

plan was necessarily driven by the SFA deadlines or requirements, but it was a very sad year for a lot of people.

In terms of the adjustments to the Act, I know there probably will be some. Some of them are probably appropriate. One I would like to point out as being most critical is for Congress and the Administration to figure out some way to have a serious observer program as a quality control mechanism. I think this data source should be supplemented by fishermen data as much as possible. I think those two programs could work well together. My biggest concern, although certainly not a response to some of the questions you've been asking, would be for Congress to respond by further micromanaging the fisheries. Fisheries management is very difficult and for every good thing Congress thinks its doing here, it may be stabbing another community in the back without even knowing it.

Fisheries management is a very complicated exercise even at a regional level. It's virtually impossible to get into the trenches on a national level without seriously causing regional problems. So that's my sort of larger policy concern: micromanagement by Congress. I do think that congressional exhortations to the agencies and the participants from the fisheries to work more closely together is important.

What I'd like for today is to just quickly go through—and these are developed in my testimony to a greater degree—some of the longer term larger reauthorization issues. Instead of getting quite so specifically about the narrow problems that are happening now, I think the United States can't wait another 20 years for a major re-look at fishery management in this company.

Maine now has a new law that focuses on emerging fisheries which recognizes that fishery management needs to change in Maine, so if a sea cucumber industry is going to develop, it needs to develop in light of the fact that there are a whole lot of other fisheries that use those same waters and there are ecological issues that need to be taken into account.

The Senate, I believe in particular because of the leadership the Senate has shown, needs to become more active in shaping the future face of U.S. fisheries. The National Standards from my perspective are too numerous; they are too vague; priorities are not set between them; and often they are internally conflicting.

A case in point in Maine was the redevelopment of the herring fishery, and the major battle that was well grounded on both sides in different National Standards between local fishermen of Stonington and Deer Isle and the larger factory fleet which is certainly a more efficient way to gather herring. The impacts of a large factory catch of herring on the Stonington herring fishery as a source for lobster bait could have been very profound as they pointed out, and I think it shows right there that there are very significant differences between what's important regionally and what might look good nationally, what might look like a good National Standard. I think Congress has to look at the National Standards.

The second—and I think this may be more important for New England—the United States really has to develop a coherent, integrated strategy to become a more—I'll use the word sustainable—

a more sustainable competitor in the world marketplace for fish and marine products and services. Look at the country of Norway where fisheries and agriculture and marine resource-based issues are viewed as a strategic issue. They have made no bones about it; they have resources of wealth generating.

What comes from making the decision that fisheries are a strategic industry in the United States, and they certainly are in New England, they without a question are in Maine. Certain things flow from that decision in terms of research and development, data collection, professionalism, thinking about how you make that happen and how you keep your niche. I think we've lost a lot of market share. Maybe not in lobsters. Maybe there's some substitution with salmon, but in wild fisheries I think we've definitely lost market share and a lot of the fish that are coming into this country onto our plates are from foreign sources or from Alaska, from other parts of the world. I would like to see that change.

I think the United States needs to put increased dollars into these management programs for that reason. For a long time we have not charged any rent for people who have gone into the ocean. As far as I know, it's the only natural resource-based industry in this country based on public resources where there is not at least some rent schedule associated with development activities on the resource. It is a very delicate, sensitive topic in fisheries and for the moment the American taxpayer will continue to bear the large cost of revenue, providing revenue. But I think we need to start talking about a system of rents at some point in the future, a fee generating mechanism, if nothing else.

Two other quick points. I think, and several people have mentioned it, I agree completely with Don Perkins on this, the institutional structure of fisheries management is not adequate to deal with the dynamism of the fishery. For me, having five or six framework amendments isn't surprising in a fishery that is highly dynamic—in fact, fishermen adjust their strategies on an almost weekly or daily basis depending on where the fish are and what the market prices are. I think there are substantial risks from a more rigid plan that are set up a year in advance based on 2-year-old data and then is supposed to work flawlessly until the next review. So I would go along very strongly with thinking of ways of disaggregating the management structure, particularly in the implementation and administration and enforcement, to smaller units.

The New England Council has too big a jurisdiction, too many fish to manage. It doesn't have any capacity to even implement or explain its plan, so I think decentralizing management and administration has to start on an experimental basis. There have been proposals, there are provisions in the law that deal with special management areas. These could be explored.

In forestry management there is a very careful balance between national interest and local interests that is very tricky but important. I would encourage the Senate to look at disaggregating the implementation of fisheries management to lower levels.

And then finally, this is, I think, a larger scale question, but I think there does need to be greater cooperation and coordination in this region. The Canadian scientists and managers manage stocks

that cross the border and have impacts on the United States. Right now, again using the herring example, when the U.S. scientists first came out with their landings estimates they were off by 300 million pounds I believe based on Canadian estimates. That suggests their view on how to do a herring assessment was very different.

I think this notion that these two countries and this one Gulf of Maine are separate zones and spheres of influence is something that we need to leave behind somehow and work toward making the Gulf-wide system more seamless. Thank you very much.

Senator SNOWE. Thank you.

[The prepared statement of Mr. Shelley follows:]

PREPARED STATEMENT OF PETER SHELLEY, VICE PRESIDENT, CONSERVATION LAW
FOUNDATION

Good morning, Senator Snowe, Senator Kerry, and other members of the Senate Subcommittee on Oceans and Fisheries. My name is Peter Shelley. I am a Vice President of the Conservation Law Foundation, a non-profit conservation advocacy organization based in New England. I am also the Director of CLF's Maine Advocacy Center in Rockland. I have worked on a variety of marine resource advocacy and policy issues for more than two decades. I am grateful for this opportunity to address the Subcommittee at this field hearing on the Magnuson-Stevens Act. Moreover, the United States Senate has played the major role in developing the national agenda for this Nation's important marine resources. I am honored to be able to speak directly to the Members and staff of the Subcommittee of the Senate where that agenda is fundamentally shaped.

Today's hearing inquires into two important topics: an evaluation of the implementation of the Sustainable Fisheries Act ("SFA") which is a retrospective exercise in nature, and the forthcoming reauthorization of the Magnuson-Stevens Act, which is prospective. While CLF is a Board member of the Marine Fish Conservation Network, this Subcommittee has already heard from the Network and received their detailed comments on these issues. I will not repeat those items except to indicate that a great deal of thought from a variety of conservation, fishery, and scientific perspectives has gone into the Network's suggestions and I urge the members of this Subcommittee to consider those comments thoroughly.

I will use today's opportunity to provide this Subcommittee with my own regional and personal perspective on the implementation of the SFA and the future key fishery policy issues that reauthorization should address.

Implementation of the Sustainable Fisheries Act:

The Sustainable Fisheries Act ("SFA") was the most important development in federal fisheries law since the enactment two decades earlier of the Magnuson-Stevens Act itself in the 1976. I believe that the driving force behind many of the major new provisions in the SFA was a general view held by commercial fishermen, recreational fishermen, marine scientists, and conservationists that the general condition of the oceans and the fisheries in the oceans was not markedly better in 1996 than it was in 1976. To the contrary, conditions in many of those fisheries had actually declined below 1976 levels despite two decades of active federal management.

While responsibility for these declines could be and was laid to a variety of hypothetical and real factors, there was a broad consensus from different perspectives that federal fisheries management was not working. The SFA was a measured response by Congress that looked at a number of these factors, such as habitat losses and degradation, bycatch, discards, an indulgence of overfishing by Councils. Conceptually, the SFA amendments represented the beginning of an effort to shift fisheries management from a narrow species-by-species framework dominated by short-term economic interests to a broader ecosystem-based approach that protected the core factors in the ocean that were necessary to produce a healthy abundance and diversity of marine species for human harvest as well as other functions in the ocean system.

I believe that the SFA amendments were based on sound strategies that will improve our coastal and offshore marine resource systems and the social and economic conditions of people who depend on the health and availability of these resources. Because they are such a fundamental change from the business of fisheries management as practiced over the past two decades, it is too early to judge their full im-

pact. The National Marine Fisheries Service ("NMFS"), working under significant time pressures with limited staffing and resources, took time to develop implementing regulations and guidance and the Councils, in their turn, had to integrate the new requirements of the SFA into an already crowded agenda.

That work has not been completed at this time. In New England, some of the SFA amendments have been implemented better than I had expected, and others have not fared as well. Like many problems in fisheries, it is tempting to point to some "special interest" or malevolent intent by one group or another as obstructing the intent of Congress but I do not believe that it is constructive to do so. Different people have interpreted Congressional intent in the SFA differently and it is not surprising to me that the full range of fishery policies identified in the SFA have not yet been fully implemented. The SFA is a work in progress and it would be a mistake to evaluate the benefits or flaws of the SFA amendments based on any one snapshot in time.

1. Essential Fish Habitat: The most significant new management issue that all Councils have had to address is the essential fish habitat requirements of the SFA and at least one lawsuit by conservation organizations and a fishing group from Cape Cod has been filed challenging the New England Fishery Management Council's and NMFS's actions implementing those provisions in the Multispecies Groundfish Fishery Management Plan in this region. The courts will resolve those legal and factual questions on their merits but I do not believe that either the existence or absence of litigation around implementing the SFA lawsuits provide evidence of legislative failure or excess.

The fishing community in New England is fully aware of the importance of the protection of essential fish habitat and realizes that there are impacts on those habitats from different fishing gear types. The basic thrust of the SFA to identify and protect particular habitats from destruction or negative alterations is sound and should be affirmed by Congress and implemented responsibly by all Councils and NMFS.

2. Institutional Reform: The SFA amendments as well as continued stock declines and economic losses in the New England region have forced positive changes in the institutions and processes by which fisheries are managed in New England. The New England Fisheries Management Council has responded to the increasing challenges of effective and responsible fisheries management by working hard to become a more effective and responsible organization. The committee structure assignments and leadership of the Council reflect a serious intent to restore and enhance fisheries in New England and to increase the professionalism and stature of Council operations.

The management actions by the Council have not yet been fully informed by many of these structural changes and the important broadening of perspectives in the Council appointments themselves, but we believe that we will see continued improvement in all areas. The New England Council of today is different in some very fundamental ways from the New England Council of ten years ago and we believe that regional fisheries and the regional marine resource will be the long-term beneficiaries of those positive institutional changes.

3. Bycatch: No one wants bycatch, that is, landings that must be thrown overboard because of economic or regulatory reasons. Some fishermen in this region are irresponsible and will tolerate the destruction of thousands of pounds of bycatch in order to land their full quota, but most deplore these practices. Some bycatch problems are regulatory problems, not legislative ones. The New England Council, for example, with NMFS's blessing put in place a thirty pound trip limit for some groundfish species while allowed continued fishing in those same areas for other species with non-selective gear this past year, resulting in the (anecdotal) bycatch and destruction of tons of economic and regulatory discards that will delay recovery of coastal cod stocks. When CLF's biologist went on a coastal dragger this past summer in some of these areas, the haulbacks were more filled with dead, previously discarded market size fish than they were with fresh catch. That is intolerable.

These management efforts were trying to respond to the economic impacts of area-wide closures to some fishing communities but we believe that they failed because they did not directly address the bycatch issue, assuming fishermen would move away from mixed stocks voluntarily. Most fishermen reported, however, that they couldn't get away from the cod no matter what they tried and as long as the grounds were open they had to fish. This is a lesson for the Council and NMFS to learn, but there is no reason for Congress to attempt to micro-manage or second-guess implementation. Congress needs to set strong performance standards for fisheries to eliminate these wasteful and unpopular bycatch problems and let the Councils and NMFS and the people in the region work through the measures and approaches to meet those standards.

There is a practical problem to the development of more selective gear and fishing practices that minimize bycatch, however, that Congress should review. Again, everyone agrees that it would be good to have more selective gear that reduce or eliminate bycatch. The problem is designing and developing that gear. In other industries in this country, research and development of technological change is driven by competition, by self-funded and government funded programs for research and development through universities, by regulation, and by random entrepreneurial behavior and activities.

In fisheries, competition doesn't work to promote bycatch-reducing gear. Indeed, because competitive forces in fisheries have always shifted the fleet toward bigger and faster platforms and gears, such a paired-boat trawling techniques, producing more bycatch rather than less. In the current system, bycatch is simply an economic and ecological externality that bears no import to the costs of doing business for an individual boat. As a result, competition has perversely tended to worsen the bycatch and discard problem at all levels of the fleet, and has not produced incentives for gear selectivity improvement.

My point here is that competition will not produce improvements in gear selectivity unless there are direct economic costs borne by the boats associated with high bycatch rates. The costs of bycatch need to be internalized to the fleet so there is an incentive to reduce the practice. Perhaps the answer is prohibiting overboard discards, requiring all vessels to bring home everything they land in their gear for on-shore disposal with full accounting of this bycatch toward individual or quotas or reduced days at sea; perhaps there are other more creative answers. Our point here is that competition *per se* does not currently have incentives to promote gear research and development to reduce bycatch.

Similarly, there are few industry self-funded approaches that have emerged to do this critical research and development at universities or other similar institutions; nor are there significant government-funded research and development programs organized around this issue. Some Sea Grant programs work on fishing gear but it is not a system-level priority for Sea Grant that we can observe, at least in New England. Where these sorts of industry-led efforts have been tried, they have been moderately to highly successful, but funding is always the barrier. There is no reason, in our opinion, why the United States could not apply its considerable marine engineering talent to gear research and development focused on bycatch and habitat destruction and become a major exporter of gear technologies and expertise to the world's fisheries. Congress should evaluate what it could do to stimulate that prospect.

The regulatory incentives need to stay in Magnuson and, if anything, be strengthened. They are the only current "incentive" for Councils, commercial fleets, scientists, and government managers to address this problem and they are having some beneficial effects already, the Maine northern shrimp fishery being just one example.

The efficacy of these regulatory forcing mechanisms, however, is connected to the last, and perhaps best source of gear improvements in New England: the entrepreneurial spirit and ingenuity of the commercial fisherman in New England and elsewhere. That resource has scarcely been tapped and for one reason. The current, highly restrictive quotas and days-at-sea management measures place severe, if not terminal consequences on the captain or boat owner who would like to experiment with gear modifications. Each day of experimentation comes right off the top of that boat's allocation, which is currently at or below the financial break point of many New England operations. More perversely, since future allocations of quota or days are often based on volume-based landings histories of the individual boats, people who innovate and land fewer fish than others are taking serious risks relating to their future in the industry.

These disincentives that preclude tapping the innovative capacity of members of the New England commercial fleet need to be removed so that research and development directed toward gear selectivity and habitat impact reductions does not require personal sacrifice or competitive disadvantage. Congress should look at what it could do to encourage the elimination of these disincentives.

SFA Summary: We believe that the SFA is an important and overdue step in the right direction for fisheries management in the United States. It can be improved and tightened and adjusted and better funded as suggested in the Marine Fish Conservation Network's comments, but the SFA fundamentally points in the right direction. What the SFA cannot force and what is critical in the short term in New England is greater and more proactive leadership on the directions of federal fisheries management from the several states.

Re-authorization of the Magnuson-Stevens Act

Looking forward and beyond the SFA mechanisms, Congress has some crucial strategic decisions before it that will shape the face of regional fisheries as well as bearing on the ability of the United States to be a competitive force in the world market of fish for years to come. Several of these choices that have particular bearing in New England come to mind:

1. We are at the end of an era of open access fisheries. What will the face of tomorrow's fisheries be in New England and how will those decisions be made?

Most current and reasonably foreseeable commercial fisheries are now closed to entry. Although these closures could conceivably be changed in the future, it is hard to image that improvements in harvesting capacity and technology will not allow the current fleet to more than keep up with any recoveries in fish populations. Indeed, most economists would conclude that there is significant over-capacity in New England for even the long-term foreseeable future. Economists say: "Let the market (and access to deep financial pockets) decide who stays and who goes. Bring on ITQ's or IFQ's or other market mechanisms to 'rationalize' the fleet." Some fishing operations and fleets in New England are already organizing themselves up to participate in this marketplace as a way of eliminating competitors as well as improving their own business operations.

In New England, the traditional fleet has never been rational, so to speak, and many of us like that fact. Just as legitimate and rational social policies drove people to institutionalize the economic inefficiency of the "skip jack" oyster fleet in Chesapeake Bay, similar choices could be made up and down the coast of New England. Should the choice to the fishermen in Stonington, Maine be to either out-compete the factory trawler/processor fleet in "economic efficiency" for herring or be eliminated forever from access to the herring resource? Should access to capital determine whether or not the small boat fleet in Saco, Maine or a young woman from Cape Ann gets to try her skills as a commercial fisherman in the next century? Should a boat that hammered the resource over the past decade and built up an impressive "catch history" will be elevated by Congressional decree over ten boats that had more modest ambitions during that same time period or fished in several different fisheries? Should such fundamental economic, social, and cultural questions be decided as a matter of national policy using a one-size-fits-all approach, or should this matter that must be resolved ultimately at a more local level? These questions are not resolved by the national standards in the Magnuson Act or anywhere else in the law, particularly the strategic decision of whether Congress wants to protect the traditional access of coastal communities to fishing as a priority over achieving full economic efficiency or even full "utilization" of all commercial species at all times. Congress has commissioned in the SFA several expert reports that touch on a number of these themes and Congressional deliberations on the recommendations in these several reports need to be thorough, public, and as fully informed about both the intended and the potential unintended consequences of any decisions Congress might make. Those strategic choices will have profound and irreversible impacts on the face and faces in New England's fisheries forever.

2. The United States needs to develop a coherent, integrated national strategy for sustainable competition in the world market place for seafood and other marine resource related products and services.

With some notable exceptions, many parts of the United States and New England in particular have lost their market share in the world marketplace. Most of the fish that are eaten in New England and, indeed, most of the fish that are processed and distributed nationally from New England are imported into the region by air or truck, not by boat. Some of those fish come from other US fisheries, but many do not. When we look at the seafood products literature, we see that some of the new dominant fisheries are based in countries like Norway where serious fishery management has produced recoveries of fish populations and sustained them at levels that allow large volume buyers to reliably meet their quantity and quality demands. Volume buyers cannot depend on local sources of groundfish and flat fish in New England to meet their requirements. Volume buyers need healthy fish populations, maintained at high levels, harvested properly, and competent and competitive shore-side infrastructure. Those requirements, in turn, can only be met with a national strategic commitment to US fisheries that requires at least one order of magnitude greater investment of time and resources than the US currently provides.

In analyzing Norway's success, for example, as a world power in fisheries, their competitive position is driven by a national and fully funded strategy to be a world power in fisheries: a commitment to fisheries management that does not tolerate overfishing of cod or any level of fishing mortality that approaches overfishing, an integrated and zoned aquaculture industry, a systematically designed and distributed system of research and development in industry and academia covering all as-

pects of being a world power from harvesting fish and protecting fishing habitats to processing and distribution to product development to marketing.

The differences between Norway and the US are quickly apparent by a visit to the annual Boston Seafood Fair, where the presence of the United States is virtually limited to a small booth properly extolling the virtues of seafood safety programs. Norway and other countries, on the other hand, broadly participate as countries in the Fair. Promotion of US fisheries is left to the individual efforts of US firms.

While this might seem like a strange issue for a conservation organization to be raising, we believe that our capacity to compete in increasingly global marketplace for seafood products and marine resource services is directly dependent on having a committed national strategy to restoring and protecting the marine resources and the marine resource base in our exclusive economic zone. No fish, no quality, no fishery. Commercial fisheries for cod were one of this nation's first and most profitable industries and New England was once a net exporter of salt cod to the world. Mismanagement and underfunding and the lack of an aggressive national strategy to protect the "golden cod" has changed all that for the worse.

We think the United States can gain market share in this area and should commit itself to doing so as rapidly as possible. Fisheries are an area where conservation common sense aligns directly with long term economic wealth and social well being. Before this alignment can happen, however, leadership must come from Congress in a way that Congress has never led our national fisheries effort before. In Washington on the Hill, fisheries need to shift from being predominantly a matter of constituency services to help with short-term crises, to being the focal point of increasing our competitive position in global (including our own domestic end-users) fish products industry.

3. Congress must begin the debate to design and implement a system to collect rents from marine resource harvesters and users.

Of all the publicly owned natural resources, only commercial and recreational fishing are "free." One could not go into a national forest and commercially log or even recreationally log without paying a fee; no one can graze on BLM land without paying some kind of fee. No one can commercially drill in the oceans for oil without paying a fee. When other natural resources are exploited, the only serious policy question is whether the fee structures and levels are proper, not whether they should exist. And yet, fees in federal fisheries are limited to the costs of administrative expenses.

The collection of reasonable rents in return for the privilege of taking public resources and making personal profit from them is not fundamentally a philosophical or an ethical question, although it is certainly those as well. It is not about punishing fishermen and taking some right away from them that they have always enjoyed for free until now.

The collection of rents is essential to funding the basic and applied sciences that relate to fisheries success or failure, the research and development on better gears and habitat protection, the data collection (including the observers to provide some quality control and accuracy on data) and analysis, and the other activities that are pre-conditions to our collective ability to change from a management approach that is based on looking backward to one that is based on looking forward and has the intelligence to make dynamic and tactical shifts in management policies on a real time basis.

Until we can fund such a vision of fisheries management, we are doomed to repeat the incessant and steep ups-and-downs that have characterized too many US fisheries in recent decades. I believe Congress could go part of the way by spending significantly more general taxpayer dollars to allow agencies and Councils to do their jobs and fulfill their Congressional mandates responsibly. At the same time, the American taxpayer has a right and obligation to ask Congress why rents are not being extracted from the fisheries that profit, often generously, from the national investment in pollution control and other factors supporting our ocean's health. This is a contentious and difficult issue that no Congress would volunteer to tackle, but the plain truth is that it cannot be avoided and is long overdue.

4. The institutional architecture of federal fisheries management needs further work.

Most of our natural resource management programs are managed remotely by large bureaucracies of scientists, managers, and administrative staff who develop long term management plans for forests or grazing land or mineral development. While such designs are hardly perfect from a community perspective, the inherent stability and predictability of resource conditions under different management strategies is easy to analyze and confirm through inspection, and enforcement situations are difficult to hide for long.

In 1976, Congress recognized that marine resource management was another matter when it set up the Magnuson-Stevens Act and created the Council system, which functions essentially as a non-regulatory planning entity for NMFS to implement federal fishery management policy. This was a very perceptive action on Congress's part as fisheries are very dynamic, are very different in different parts of the United States, and require local knowledge. We think this was a good approach, even though we haven't always approved of the actions or "non-actions" taken by the New England Council.

There are a series of issues that Congress needs to consider in any re-authorization of the Magnuson-Stevens Act, given the lessons of twenty years of Council activity and from our perspective on the New England Council. First, the integrity and inclusiveness of a broad set of interests on the Council itself needs to be re-analyzed. Councils make decisions that affect broad segments of the region's inhabitants. Are the Councils and the qualifying requirements for Council appointees appropriate in insure that these interests are represented on the Councils and reflected in the Council's decisions? Is Congress satisfied with the conflict-of-interest rules that are currently in place? The legitimacy and moral force of the Council's actions is a direct function of the integrity and legitimacy of the Council itself.

Second, for the same basic reason that Congress developed the Council system in the first place, we think that the Council structure and management process in New England may be occurring at too large a scale. Most of the region's fishermen - who are ultimately the principle implementing forces of Council planning and management - are unable to participate meaningfully in the process and, as a result, do not always either understand the background or justification for a particular action or are faced with a rule that will not accomplish its intended conservation or management purpose in their area because of local conditions. Participation in the Council and NMFS process is also a function of how close you live to the Council and whether you are an active, full time, sea-going fishermen or a shore-side owner or industry representative.

The lack of more meaningful democratic elements and practices in fisheries management may play a larger role in whether a particular management strategy succeeds or fails than some people believe. In Garrett Hardin's 1968 article "Tragedy of the Commons" that provided so much insight into the nature of the underlying causes of the ruination of public resources, he indicated that the tragedy could only be prevented by "mutual coercion, mutually agreed upon." He argued that such a system would never be perfectly just but that a good enough justness was generally sufficient. In New England, Council decisions are hardly mutually agreed upon.

On the other hand, there are strong national interests in federal fisheries that cannot be delegated lightly to local, decision-making processes. The question of whether and how to strike a better balance between more local institutional management activities and efficient but perhaps unwieldy and non-representative Councils with jurisdiction over vast expanses on the eastern seaboard, for example, is a challenging one for Congress. There is a growing body of exciting theory extolling the value and virtues of different forms of "bottom-up", "co-management," "community-based" management working in concert with more federally-oriented "top-down" approaches, but the theory is quite a distance away from the reality of the present institutional and operational capacity to implement other models.

We believe strongly that these new approaches merit serious attention and are already implied by the National Standard 8 in the SFA. We urge members of the Subcommittee to give these ideas serious thought and provide on a regional, pilot basis the option of further experimentation and development of the practice of such fishery management partnerships.

5. Congress should mandate greater cooperation and coordination with Canadian scientists and managers in fisheries management of shared species.

As the herring assessment process in the Gulf of Maine illustrated, there are significant differences between the ways that Canadian scientists and managers approach their fisheries responsibilities and the way their counterparts in the US do. Without suggested either government's approach is inherently superior, it is important that there be complimentary approaches in the data collection, stock assessment, and management of fish stocks that move between Canadian and US waters.

Summary on Re-Authorization Issues: We believe that there are some fundamental and far-reaching strategic issues that Congress must tackle in the near future, notwithstanding the SFA amendments in 1996 and any improvements to those provisions that Congress enacts in this next session. They will involve vision; they will require significant private and public investments; and they will involve choices that will inevitably produce winners and losers since not all national standards can be optimized simultaneously. But they must be made and the United States Senate is the best body to begin to forge consensus on these matters.

Senator Snowe, thank you again for this opportunity to testify before your committee and for holding hearings in Maine. I again urge the Subcommittee to carefully consider the MFCN's agenda and our goals. They are goals that are shared by most people in New England. The strategies for reaching these goals are the result of considerable discussion and will certainly require further debate in Congress and outside Congress. But the goals are fundamentally sound and will produce stronger New England fisheries.

There are also many smaller initiatives under way in the region today that would have been unthinkable ten years ago and they are the product of thousands of hours of often volunteer work and cooperation. The Port of Portland is working on a strategic plan for the future of the fishing industry in Portland; the Stonington Fishermen's Alliance is gearing up to restock scallops in their waters to rebuild that fishery; and the Tri-State Alliance demonstrated for the first time that Maine, New Hampshire, and Massachusetts could reach political consensus on a funding program even where each state was not going to equally share in the funding.

We don't want to lose any more of our fish populations and we don't want to lose any more jobs in fishing. We want fishing to grow and we want to see more young people finding an opportunity for themselves in the fisheries of the future. The only way we know how to do that is to restore and enhance the New England marine resource system. With this Subcommittee's help and leadership, we believe we can make that happen.

**STATEMENT OF BARBARA STEVENSON,
SELLER'S REPRESENTATIVE**

Ms. STEVENSON. Thank you for the opportunity to speak today. In my written testimony I have covered several items. These include the problems of mandating achievement of maximum sustainable yields for all species and other scientific problems, the forced redirection from an evolution toward ecosystem management to an unnatural management by numbers, less consideration of social and economic issues as well as decreased consideration of impacts on communities despite the addition of a National Standard to address these concerns, the increased stress and uncertainty in the fishing community because of the rapid timeframe required to develop plans for species defined as overfished, the setting of unrealistic overfishing definitions, the setting of unrealistic rebuilding schedules, the delinking of approval of management plans from their actual implementation, the increased use of framework actions to avoid environmental impact, statements and I made some comments on the concept of husbanding and on capacity.

Senator SNOWE. You sure you haven't left anything out?

Ms. STEVENSON. I want to spend my time now not talking about that but talking about a couple of other issues, and one of them is I want to take advantage of being on the last panel so I have a couple of comments on things that were said on the other panel.

The first thing is something that Ms. Dalton said when she said that the Fishery Service won the lawsuit on the multi-species plan, which they did win but they won primarily based on the fact that the timing was such that that lawsuit was not judged by the standards that all the lawsuits afterwards have been judged by. It was filed a week or two before the implementation of the newer standards. So you just need to remember that when they said they won, they won, but it was based on a totally different standard than is currently in place.

I also noted that she indicated currently that plans come to Washington without economic impact statement alternatives, and one of my frustrations on the Council is that you should have the

economic impact statements when you're making your last decision and we certainly do not have that.

There was a lot of discussion about the differences between the ASMFC and Council processes.

There are a couple of things that the Council itself doesn't seem to be able to do anything about. One is the peer review of shrimp. Essentially it's the industry and the managers, and they get together and go over the data. The peer review things that the National Fishery Service does is have their scientist which used to be off in a closed room without anybody else around, but in the beginning of the Magnuson Act there was some degree of cooperation between scientists and fishermen and managers and that over time has gone away for a large number of reasons. That makes it very difficult for any kind of real term management.

Another problem is the ASMFC has different regulations for its meeting notices. The Council can't hold an advisory committee meeting—without giving 23 days notice. Now, I'm all for the industry knowing what's going on, but when you get to the 23-day notices, we can't have a meeting because we can't do it before this time. There needs to be some flexibility in that so that the Council can schedule when an issue comes up and it can actually hold an advisory committee meeting. It's just the physical time constraint that you're under because under the law makes it so that you can't involve the industry and advisors then there's a real problem there.

The other issue that I wanted to talk about is you were asking how you made this tradeoff in MSY. The Council actually did that. I may not totally agree with it, but they did that when they did amendment 7, and amendment 5 before that when they said here are the 13 species, these are our bellweather species, we have made the decision that whatever we do for these species will help the rest and we aren't going to worry about them too much.

Now for me, we might have picked a slightly different set of species, but one of the things that did was in red fishing, we completely forget about redfish. In redfish 15 years ago there was a crisis. It was projected they would recover in 20 years if you close the Gulf of Maine to any fishing, and they'll recover in 25 years if you do something a little more reasonable. Well, I don't think under the SFA we could have done anything more reasonable. That's one of my concerns about the SFA.

What the Council did was say OK, fine, you can't go redfishing anymore. The redfish are coming back. Fifteen years later people forget there ever was a big redfish industry. But they are coming back. The Council was patient and said this is what we can do. This is one of the problems with the SFA is it no longer is a perception of what we can and cannot do.

I also want to talk about what SFA has done and hasn't done. The doubling of biomass on the 11 stocks that you've seen in the news lately is not because of SFA. It was because of the things that the Council did before.

Fishery management takes time, results take time. There's a lot of yelling and screaming while that time passes, but the things take time. SFA has forced us to spend an enormous amount of time dotting I's and crossing T's and having meeting after meeting going over a list of fisheries which include surf clams and scallop dredges

under duress, so I can't figure out what it does for anything. A committee that I chaired held numerous meetings going over the list and sending back recommendations and they're still wrong. So they don't even know what kind of gear we use.

We don't have the information to do things by numbers and yet SFA is forcing us to, so in my final analogy I tried to find fables that would work and I didn't do very well, but I want you to think about the tortoise and the hare. Prior to the SFA the Council was a tortoise, and it was a really slow tortoise. So OK, they turned us into a hare. But we're a split personality. We're running around doing things right and left, but you know who's taking the nap? National Fishery Service. We get all our stuff done and it goes to them and it sits there. We have a monkfish plan, it's been almost a year now since it was approved, and it still hasn't been implemented, I'm not actually trying to criticize the National Fishery Service. I'm sure there a number of reasons that that's happened. But what you really want, isn't us running around dotting I's and crossing T's, what you really want is good fishery management.

Every single amendment to the Act has made it harder. And this last one, the other ones were irritant and this one is just off the scale. Way back when I first got involved in this, one of the first statements in the Act was that we're managing for the maximum benefit of the nation. I thought it wasn't even still in there but it is in some of the footnotes. That's what we need to get back to, maximum benefit of the nation.

Senator SNOWE. Thank you.

[The prepared statement of Ms. Stevenson follows:]

PREPARED STATEMENT OF BARBARA STEVENSON, SELLERS' REPRESENTATIVE

The Sustainable Fisheries Act (SFA) created several problems for conservation-oriented fishermen and fishery managers. These problems include:

Mandating achievement of Maximum Sustainable Yield (MSY) for all species, and other scientific problems.

A forced redirection from an evolution towards ecosystem management to unnatural "management-by-the-numbers."

Less consideration of social and economic issues, as well as decreased consideration of impacts on communities, despite the addition of a national standard to address these concerns.

Increased stress and uncertainty in the fishing community because of:

The rapid time frame required to develop plans for species defined as overfished

The setting of unrealistic over fishing definitions

The setting of unrealistic rebuilding schedules

The de-linking of approval of management plans from their actual implementation.

The increased use of framework actions to avoid environmental impact statements.

The concept of husbanding, rather than management

And a few words about capacity

MSY

MSY, the underpinning of the SFA, is a concept that had lost favor in much of the scientific and management community because of practical and theoretical problems. MSY for a given geographic area may well be definable, e.g. the productive potential for Georges Bank is definable and relatively stable. But the biomass levels of individual species and stocks within that area may vary widely, for reasons having nothing to do with fishing mortality. A cold winter favors some species, a warm one favors others. An incursion of the Labrador Current or an eddy from the Gulf Stream may have profound influence, or almost none at all.

Further, the productive potential for Georges Bank cannot be exceeded. No matter what the law says, if the area cannot support MSY of all species at once, it will

not. A field may be able to produce 200 sunflowers, or 500 stalks of corn, or 50 soybean plants, or any mix of the three -- but it cannot support all at once.

How, then, can any area maintain all species at a historic high at the same time? The answer is simple: It cannot. But when this question is raised, we are told that SFA allows no leeway to set realistic targets, or to take into account the natural ebb and flow between species. You must give that leeway. How can anyone buy into a system that is illogical in concept and practice, let alone manage effectively within it?

Overfishing definitions

A cursory glance at some of the overfishing definitions submitted by the Councils demonstrates the absurdity of a fishery management system based solely on numbers. Many of the mathematical formulas used in fishery management rely on biomass figures generated from NMFS's semiannual survey cruises, wherein 350-400 samples are taken—from North Carolina to Canada—of species abundance. Yet stock biomass levels for the entire region are extrapolated to the pound.

The result of any mathematical formula is only as accurate as the least accurate number used in the formula. Numbers that should be rounded to even 100's are being expressed to the fourth decimal point. That a formula produces a number does not mean the number is valid.

We have overfishing definitions based on averages of three year averages. Yet, we must treat the resulting number as fact. In the best of situations, with the best data that NMFS has, the New England Fishery Management Council (NEFMC) is attempting to manage codfish based on information collected 2 years ago. What a waste of time, resources, and talent it is to jump through hoops to make the numbers work under the assumption that management to a fixed point based on two year old data makes sense.

The NEFMC has been told that, to achieve the mandates of the SFA, fishing mortality for George's Bank winter flounder must be cut by 80%. But, if there is no cut at all, the stock will recover to the stock biomass goals by the end of the same year, and in the following year, no cut would be needed because the biomass would be large enough to support the higher fishing mortality rate. It is almost inconceivable to the industry that such large cuts would be implemented when *no* cut will achieve the same goal.

The discussion on MSY and the overfishing definitions point out the problem of developing a numbers based system, when numbers may not be appropriate. Some species will never be appropriate for numbers based management, some species might be if the numbers were definite. But, given the present state of knowledge and the present state of resources it is inappropriate to think this system can work well. Fisheries science is still a *science*—meaning that all of the answers are not known. There is a need for research. There are unanswered questions. The SFA pressures fishery scientists and managers to pretend to know things they do not know. We all would be a lot better to acknowledge the level of our lack of knowledge. We all would be a lot better off to accept the current limitations of that knowledge and devise a management system that can accomplish more modest goals.

Best Available Science

There have always been questions raised by Industry as to why there is an automatic assumption that whatever they observe is anecdotal while whatever a scientist observes is fact. That problem is not going to go away. But the isolation of scientists from the management process is getting worse.

"Best available science" should not be whatever the Northeast Fisheries Science Center (NEFSC) wants to provide. There should be some obligation for the NEFSC to address serious issues brought forward by the Councils. A recent example regarding Cod should illustrate the problem from both the industry's and the NEFMC's perspective.

Various industry groups have for some years stated that the line demarcating the boundary between Gulf of Maine and Southern New England and Georges Cod, was in the wrong place, or should not exist at all. The NEFSC was asked if it had information that would support a different stock boundary between Gulf of Maine and Georges Bank. One year, it stated it could defend the line (not what was asked) and it was going to do a definitive otolith study. The next year, it said it could defend the line (not what was asked), and was going to start that otolith study mentioned last year. The year after that, it said one could possibly construct other lines and by the way, we are really starting that otolith study, but don't look at any of the historic information on tagging because we don't like it, and don't believe any of the current tagging that is being done by some industry members, because tagging stud-

ies only tell you where some of the fish were caught and released and caught again. Somewhat, I suppose, like the fish used in otolith studies are caught.

Recently the Council requested specific information from the NEFSC regarding stock boundaries for both Downeast Maine and the George's Bank Northern Edge stocks. The response did not provide that information. Whether the cod just north of 42° 20' is really part of the Gulf of Maine stock, as our current management plan and the NEFSC claim, or whether it is part of the Georges Bank Northern Edge stock, as it was deemed historically, currently by the Canadians, and always by the fishermen, is very important to the offshore fishing community.

When the Councils ask questions, they need to be treated seriously. It took several years to find out there was information available (the tagging studies) which happened to mirror the stock boundary lines cited by fishermen. Neither the tagging studies nor the industry support the current line. NMFS must be told, by amendment to the SFA if necessary, that part of their job is to work cooperatively with the Councils and to seriously address questions relating to major management problems. We now have a 100 lb trip limit on one side of the line and 2,000 lb. trip limit on the other. It is really important that the line be in the right place. Or if there cannot be an appropriate line for this type of management, then the Council should be told that.

Best available science should not be only what the NMFS decides it wants to let the Councils and industry in on.

Use of industry common wisdom.

There has been an ongoing debate between industry, who usually support spawning closures and assessment scientists, who say it does not matter when a fish is caught. The assessment scientists usually insinuate that fishermen are naively applying human traits to fish. There is an interesting recent study from Canada that shows that codfish have individual fish-to-fish spawning rituals, and that disturbing the fish during those rituals significantly decreases the chances of spawning success for both that fish and a wide swath of fish near those disturbed. The pendulum has swung much too far toward numbers and away from those truths fishermen know because they must think like a fish to catch him.

This study, confirming that which we knew in our hearts to be true, has come after many years of the fishermen losing battles to close discreet valuable spawning grounds in the Gulf of Maine. We only got closures for Gulf of Maine cod, by subterfuge - they also happen to be areas of high catch. Think how much better off we would have been if science would have worked with fishermen and believed fishermen might just know something.

As icing to a bitter cake, we also found it interesting that scientists at our same Center were active in this same research before the Canadians -- and were offended we credited the Canadians!

Social, Economic, and Community Impacts

Though the addition of National Standard 8 was meant to increase awareness of community impacts, it seems to have had the opposite effect. This is primarily because National Standard One has been interpreted to override all other national standards. National Standard One has also been interpreted to override Maximum Benefit to the Nation. While healthy fish stocks are essential to us, there is a lot of leeway between the cost and benefits associated with different rates of recovery or different healthy levels of fish stocks. The ability for Councils to consider difference circumstances, different recovery rates and different levels of healthy stocks is essential. There are cases where a slight change in the rebuilding schedule would allow an industry to survive. There are locales where the existence of a certain type of fishing as a backup to normal activity in a bad year is essential. In many of these cases, the short term "overharvest" of a resource would still maximize the resource's benefit to the nation. Note I am not arguing to do away with the conservation goals and objectives of the SFA. Healthy fish stocks are essential for a healthy industry. Just as a sick patient may not be able to take the medicine that would cure the disease the fastest, because he could not survive, sometimes a slower route is the preferred route back to health for both fish and fisherman.

Because the formal amendment process takes so long, many plans have moved to a "framework" mechanism to make changes to management measures. This move was supported by both industry and managers. Both could see the benefit to be able to act more quickly. What was not anticipated was that frameworks would be used to make changes much more substantial than the average amendment had entailed previously. And, much to the surprise of many of us, it was determined that frameworks do not legally require the social and economic impact analysis needed for amendments. This is based on the premise that the range of potential impacts were

already analyzed in the amendment. I defy anyone to find me one person who anticipated the inclusion of area closures as a frameworkable measure in Amendment #7 meant we had contemplated the consequences of most of the inshore areas of the Gulf of Maine being closed.

Since economic and social impact analyses are not being done, there frequently is little or no analysis of the differing costs of alternative measures that would meet the same goals.

This attitude has now seeped back into the plan development and amendment process. The Mid Atlantic Council states in their draft Tilefish Plan that it does not matter what the cost of certain measures is, they have to be done. As there are real choices available, with very significant different economic costs but probably minor differences to Tilefish, this seems a particularly cavalier example of the attitude being developed. If one alternative gets you to your goal in 8 years and costs the industry 25 million dollars and another alternative gets you to your goal in 10 years and costs the industry 5 million dollars, that is important information which should be known and considered when choosing between alternatives.

De-linking

Way back in the dark ages, councils submitted plans and there was no time limit for implementation. If NMFS did not like a plan but could find no basis for rejecting it, it just did neither. Congress solved this problem by imposing a deadline. Within X number of days from submission NMFS must either disapprove or implement. That worked reasonably well, especially as there was a provision that those portions disapproved could be resubmitted relatively quickly.

SFA changed both of these items. The timeframe for approval/disapproval is still in place, but it now only applies to the plan, not the regulations. The ability to re-submit is no longer there. We now have a situation where plans have been approved for many months, but not implemented.

From a manager's point of view this is unacceptable because if a plan were developed because there is a resource problem, then the regulations need to be implemented as soon as possible.

From an industry member's point of view this is unacceptable because of the uncertainty not knowing causes. Even when one disagrees with the measures, in the past there was a point when one knew what was going to occur, and when. Now there is a point when one knows what is going to occur, but not when. Every time my boat comes in with two halibut, I panic, because maybe they finally implemented Amendment #9 and I am only supposed to have one. Some of these approved, but not implemented plans and amendments are approaching a year in limbo.

Rumors have it that NMFS is not implementing these plans and amendments because of fear of lawsuits. If there are real problems with the plans, they probably violate some national standard and should have been disapproved. If there are not real problems with the plans, they should be implemented. Congress needs to take this loophole out. The simplest way is to re-link approval and implementation.

Husbanding

The primary problem with SFA is the assumption we can make happen things we want to happen. The concept of husbanding is that one utilizes the resources available to oneself. One does what one can to increase those resources, but Mother Nature has a significant role to play. We would do all a great service by recognizing the hubris in SFA and embracing husbanding as a more appropriate role model.

Capacity

Over capacity appears to be one of the hottest topics of the day. While many have moved beyond the simplistic notion that multiplying fish hold capacity by number of vessels and dividing that into available resources gets some measure of excess capacity, there still is much confusion between questions regarding the number of boats within a certain fishery or area and the size of those boats. Frequently forgotten is the fact that fishermen spend much of their lives on these boats and comfortable galleys and heads and sleeping quarters add much to the quality of their lives.

The issue of excess capacity in broader terms has been discussed for many years. Ideas to address this problem have been suggested based on area management of capacity, rather than by species or plan. These ideas have always come up against the constraint that they are not legal. Make it legal. Make it legal for the Mid Atlantic and New England Council to develop a capacity plan for Cape Hatteras north across all, or most fisheries. When these ideas first surfaced, the other objection was that it might take ten years to show the desired results. That was more than ten years ago. Slower paths do not necessarily mean slower results.

**STATEMENT OF CRAIG A. PENDLETON, COORDINATING
DIRECTOR, NORTHWEST ATLANTIC MARINE ALLIANCE**

Mr. PENDLETON. When I first came in the door I reflected on my comments and I felt that I was going to have to apologize right off the bat that my comments were going to be off the wall. But after hearing everybody else, I actually am feeling pretty good about the work I've been doing the last 5 years.

My name is Craig Pendleton, I am the Coordinating Director of a new organization called the Northwest Atlantic Marine Alliance. I own a 54 foot dragger out of Portland, Maine, and I'm the Vice President of the Portland Fish Exchange Board of Directors.

Thank you very much for allowing me to testify today. I've tried to focus my testimony on some positive changes that I feel pretty compelled with rather than giving you a lot of negative comments. I will speak on four categories of concern, each one playing into the next.

First I would like to focus on the issue of most concern to me, which is decentralization of power and authority. For 24 years we've wallowed in inadequate management. While the concept of the Magnuson Act has merit, the critical linkages and partnerships for effective management were never clearly established. Quite the contrary exists today. There are few, if any, relationships that have common goals or bonds beyond a handful of extraordinary individuals who tried very hard to save a sinking ship. An analogy of what I see happening is the boat is sinking and the answer that National Fishery Service has come up with is to add more pumps rather than stop and fix the structure. I believe it is time to haul out the structure.

For the past 5 years I have had the opportunity of a lifetime to work, theorize, and put together a new organizational structure. We call our new organization Northwest Atlantic Marine Alliance. Our conceptual model and structure follow along the same basic organizational ideas as Visa, for me an instrument and structure that transfers monetary data worldwide. NAMA has had the distinct honor to have worked closely with Mr. Dee Hock, founder and CEO of Visa USA and International.

It was clear to many of us that a central government cannot possibly manage the intricacy of the dynamic and diverse resources such as we have in the Gulf of Maine. It would take a group of great diversity and common purpose making decisions at a more local level.

We watched as management plan after management plan was agonized and implemented to the detriment of both the resource and the local communities. The central authorities were suffering from information overload, power struggles, and the lack of an overall strategy. NAMA provides the foundation for localized self-regulating and self-governing participating to take place. It clearly spells out in the bylaws the decentralization of power that moves away from a hierarchical command and control type of government system to a system that promotes diversity, local decisionmaking and pure democracy. It promotes stewardship, community involvement, and breeds strong local leadership.

Decentralization and redistribution of authority can be dealt with by recognizing the appropriate level at which a decision needs to

be made. When a decision can be made locally, the appropriate language needs to be crafted through the Magnuson Act that would allow local legal entities, associations, and organizations to be recognized as legitimate partners and be granted the authority to make those decisions. NAMA provides for this through its bylaws.

Community alliances are the fundamental building block for NAMA. They are legal entities and have the ability to enter into contractual agreements with NAMA as an organization. They also establish their jurisdictional authority based on the extent of the diversity they can bring to the governance body. We can no longer tolerate management plans that are crafted under threats of lawsuits or threats such as if the Council doesn't do it, the Secretary of Commerce will.

Reality shows us that activities and fishing practices that take place in Stonington, Maine, are clearly different than what happens even in Portland, let alone Gloucester or Cape Cod. How could anyone rationally conceive that Washington, DC, could even attempt to create a blanket management plan for the region.

That thought leads me to my second issue. Recognition and promotion and partnerships with legal industry organizations and associations with contractual agreements.

Fishermen for decades have found themselves at the mercy of managers and political activists due to the fact that we are so damn independent. What few organizations we have exist on good leaders and next to no money. They act from crisis to crisis rallying the troops when needed and shaking the trees for funds to cover expenses. One person compared association leadership to being a mercenary. We groom them, we send them in to be mauled, and then we send in another.

Recognition and promotion of and partnerships with organizations and associations will enable the industry to participate at an equal level. Promoting membership and participation within an organization would begin to unite the industry and set the stage for revolving to a level of professionalism that we have long been missing. United and strategically connected, industry groups would find it easier to discuss and debate the merits of management option. Better yet, the management options would originate and be implemented at the most local level. Government would find itself at a position that I believe the founding fathers meant for it to be, advisory to the people. The role of government should be to set the goals, let the people craft the details.

The third issue is promoting and funding of collaborative research and movement toward a realtime data system. You've heard this a couple of times already. One of the greatest disconnects in fisheries management has to be between what government scientists are claiming and what commercial fishermen are seeing. Many of us believe that the current assessment, while they may be recognized as world class, leave a lot to be desired in the eyes of the fishermen who are out there on the water daily. There are many who would go so far as to claim that fisheries management science is a full year behind what is actually happening in the Gulf of Maine.

The contentiousness between science and industry is really a travesty. We've come to rely on computer models over factual ob-

servations. I believe that we as an industry have been hurt far greater by management's lack of data than by any situation of having too much data. The bridges have been burned on both sides.

Fishermen were told to supply their data only to have it used against them in courts of law. Fishermen in turn shade the truth to protect themselves, thus providing inaccurate data with which management must make decisions. It is like a dog chasing its tail. The winner bites himself while the loser continues to be the fish.

With today's technology and some serious trust building, we could have a system that collects data every minute of every trip a boat is at sea. Once again I point to NAMA and its participation in the project funded by the National Ocean Partnerships Program. They call this project Fleetlink. This project could be a basic tool necessary to begin this real time data collection and dissemination. I don't have time to talk to you about it totally, but I would invite you to visit the project website which I list in my testimony.

It is the foresight of scientists such as Ann Bucklin and Peter Weibe who long ago recognized the invaluable source of knowledge and expertise that could be gained by partnering with commercial fishermen. I have had the firsthand experience working with these fine people by participating in a research project called Globec. Projects of this caliber need to be funded. It is the hope for the future.

Fishermen must be recognized and placed on an equal footing when dealing with fisheries science. While many of us do not have doctor in front or Ph.D. after our name, we are no less experts in the field of locating, tracking, and catching fish. We, on the other hand, need to step up to the plate as professionals. We must pay heed to scientific measures and procedures. NAMA believes that every fisherman who participates in collaborative research should be involved in the design, implementation and reporting of the project. This establishes the boundaries and partnerships that are needed as we continue to try and understand the Marine ecosystem. The Magnuson Act must recognize the strength and potential of collaborative research and provide funding to establish the necessary protocols.

Finally, I would like to request that language be developed which enables the National Fishery Service or any other agency to have the necessary tools to disburse appropriated funds. NAMA is proud to have been the host of tri-state conference where a plan to disburse \$5 million in Federal disaster relief funds was crafted and approved with consensus by fishing industry members from Maine, New Hampshire, and Massachusetts.

To date, despite being announced by even the Vice President of the United States, not one dollar has passed to the fishing industry. One major obstacle we encountered trying to get much needed aid to the fishing industry was the lack of tools that NMFS were given as an agency to disburse funds. The options that were available such as grants and competitive bids do not meet the needs of our plan. This must be addressed. There must be models that can be replicated from agriculture to meet the needs of the fishing industry. The time it has taken to move these funds is just shy of a crime.

I must take time to praise the participants in the tri-state conference for crafting a plan that can be considered an investment of \$5 million by the Federal Government into the fishing industry. The industry was very strategic in crafting a plan that was not in any way to be perceived as a welfare program. We are quite confident that this plan can and will be used as a model for future investments. But this is only a dream unless language can be added to the Act that allows for a more streamlined system of distribution.

I would also like to thank the many staff members and both political parties and the Senate and the House, and including state and local leaders. Without their support and guidance and encouragement, this plan would have never happened.

I have a quote that Dee Hock always uses with us and it really relates to what happened, "Given the right circumstances and the ability to try, quite ordinary people can accomplish quite extraordinary tasks," and I believe that is the epitome of what happened.

I hope my comments were helpful and at the very least they are meant to stimulate thoughts on how we might set common goals and find new innovative ways of dealing with crisis and controversy. It's been an honor and a privilege to speak today. Thank you.

[The prepared statement of Mr. Pendleton follows:]

PREPARED STATEMENT OF CRAIG A. PENDLETON, COORDINATING DIRECTOR,
NORTHWEST ATLANTIC MARINE ALLIANCE

September 21, 1999

Dear Senator Snowe:

Thank you for allowing me to testify before you today. I have tried to focus my testimony on positive changes to the act rather than supply you with more negative criticisms.

I will speak on four categories of concern each one playing into the next.

First I would like to focus on the issue of most concern to me: *Decentralization of power and authority*.

For 24 years we have wallowed in inadequate management. While the concept of the Magnuson Act has merit, the critical linkages and partnerships for effective management were never clearly established. Quite the contrary exists today. There are few, if any, relationships that have common goals or bonds beyond a handful of extraordinary individuals who try very hard to save the sinking ship. The analogy of what I see happening is the boat is sinking and the answer that NMFS has come up with is add more pumps rather than to stop and fix the structure. I believe it is time to haul out and fix the structure.

For the past 5 years, I have had the opportunity of a lifetime to work, theorize and put together a new organizational structure. We call our new organization Northwest Atlantic Marine Alliance. Our conceptual model and structure follow along the same basic organizational ideas as VISA, the premier instrument and structure that transfers monetary data worldwide. NAMA has had the distinct honor to have worked closely with Mr. Dee Hock the Founder and CEO Emeritus of VISA USA and International.

It was clear to many of us that a central government could not possibly manage the intricacies of the dynamic and diverse resources such as we have in the Gulf of Maine. It would take a group with great diversity and common purpose making decisions at a much more local level.

We watched as management plan after management plan was agonized over and implemented to the detriment of both the resource and the local communities. The central authorities were suffering from information overload, power struggles and the lack of an overall strategy.

NAMA provides the foundation for localized, self-regulating and self-governing participation to take place. It clearly spells out in the by-laws the decentralization of power that moves away from a hierarchical command and control type of governance system to a system that promotes diversity, local decision-making and pure de-

mocracy. It promotes stewardship, community involvement and breeds strong local leadership. Decentralization and redistribution of authority can be dealt with by recognizing the appropriate level at which a decision needs to be made. When a decision can be made locally, the appropriate language needs to be crafted through the Magnuson Act that would allow local legal entities, associations and organizations to be recognized as legitimate partners and be granted authority to make decisions. NAMA provides for this through its by-laws. Community Alliances are the fundamental building block for NAMA. They are legal entities that have the ability to enter into contractual agreements with NAMA as an organization. They also establish their jurisdictional authority based on the extent of the diversity they can bring to the governance body.

We can no longer tolerate management plans that are crafted under threats of lawsuits or threats such as: if the council doesn't act the Secretary of Commerce will. Reality shows us that activities and fishing practices that take place in Stonington, Maine are clearly different than what happens in Portland, Maine let alone Gloucester and Cape Cod. How could anyone rationally conceive that Washington, DC could even attempt to create a blanket management plan for the region?

That thought leads me to my second issue: *Recognition and Promotion of, and partnerships with, legal industry organizations and associations for contractual agreements.*

Fishermen for decades have found themselves at the mercy of managers and political activists due to the fact that we are so damn independent. What few organizations we have exist on good leaders and next to no money. They act from crisis to crisis, rallying the troops when needed and shaking the trees for funds to cover expenses. One person compared association leadership to being a mercenary; we groom them, we send them in to be mauled and then we find another.

Recognition and promotion of, and partnerships with, organizations and associations would enable the industry to participate at an equal level. Promoting membership and participation within an organization would begin to unite the industry and set the stage for evolving to a level of professionalism we have long been missing.

United and strategically connected, industry groups would find it easier to discuss and debate the merits of management options. Better yet, the management options would originate and be implemented at the most local level. Government would find itself back at the position that I believe the Founding Fathers meant for it to be: Advisory to the people. The role of government should be to set the goals. Let the people craft the details.

My third issue is: *Promotion and funding of collaborative research and movement towards a real time data system.*

One of the greatest disconnects in fisheries management has to be between what government scientists are claiming and what commercial fishermen are seeing. Many of us believe that the current stock assessments, while they may be recognized as world class, leave a lot to be desired in the eyes of the fishermen who are out on the water daily. There are many who would go so far as to claim that fishery management science is a full year behind what is actually happening in the Gulf of Maine. The contentiousness between science and industry is a real travesty. We have come to rely on computer models over factual observations. I believe that we as an industry have been hurt far greater by management's lack of data than by any situation of having too much data. The bridges have been burned on both sides. Fishermen were told to supply good data only to have it used against them in courts of law. Fishermen in turn shade the truth to protect themselves thus providing inaccurate data with which managers must make decisions. It is like dog chasing its tail. The winner bites himself while the loser continues to be the fish.

With today's technology and some serious trust building, we could have a system that collects data every minute of every trip a boat was at sea. Once again, I point to NAMA and its participation in a project funded by the National Oceans Partnership Program. This project called "Fleetlink" could be the basic tool necessary to begin this real time data collection and dissemination. I would invite you to visit the project website at <http://lena.who.edu:8180>.

It is the foresight of scientists such as Ann Bucklin and Peter Weibe, who long ago recognized the invaluable source of knowledge and expertise that could be gained by partnering with commercial fishermen. I have had first hand experience working with these fine people by participating in a research project called "GLOBEC". Projects of this caliber need to be funded. It is the hope for the future. Fishermen must be recognized and placed on an equal footing when dealing with fisheries science. While many of us do not have DR in front or PHD after our name, we are no less experts in the field of locating, tracking and catching fish. We, on the other hand, need to step up to the plate as professionals. We must pay heed to scientific methods and procedures. NAMA believes that every fisherman who par-

ticipates in collaborative research should be involved in the design, implementation and reporting of the project. This establishes the boundaries and partnerships that are needed as we continue to try and understand the marine ecosystem. The Magnuson Act must recognize the strength and potential of collaborative research and provide funding to establish the necessary protocols.

Finally, I would like to request that: *Language be developed which enables NMFS or any other agency to have the necessary tools to disburse appropriated funds.*

NAMA is proud to have been host of the Tri-State Conference where a plan to disburse \$5 million dollars in federal disaster relief funds was crafted and approved with consensus by fishing industry members from Maine, New Hampshire and Massachusetts. To date, despite being announced by even the Vice President of the United States not one dollar has passed to the fishing industry. One major obstacle we encountered trying to get much needed aid to the fishing industry was the lack of tools that NMFS were given as an agency to disburse funds. The options that were available such as grants and competitive bids did not meet the needs of our plan. This must be addressed. There must be models that can be replicated from agriculture that meet the needs of the fishing industry. The time it has taken to move these funds is just shy of a crime.

I must take time to praise the participants of the Tri-State Conference for crafting a plan that can be considered an investment of \$5 million dollars by the federal government into the fishing industry. The industry was very strategic in crafting a plan that was not in any way to be perceived as a welfare plan. We are quite confident that this plan can and will be used as a model for future investment. But this is only a dream unless language can be added to the act that allows for a more streamlined system of distribution. I would also like to thank the many staff members, from both political parties, from the senate and the house and including state and local leaders. Without their support, guidance and encouragement this plan would have never happened.

I hope my comments were helpful. At the very least, they are meant to stimulate thoughts on how we might set common goals and find new innovative ways of dealing with crisis and controversy. It has been an honor and a privilege to speak today. Thank you.

Respectfully submitted,

Craig A. Pendleton
Coordinating Director

Senator SNOWE. Thank you, Craig. I appreciate all of your testimony, and I want to thank you for taking the time. I thank each of you for that. Craig, you mentioned the disbursements of funds and the \$5 million and you make a very good point about setting up a model similar to agricultural disaster appropriations where the farmers get their money almost immediately because it's been done before in numerous circumstances. There ought to be a way of doing that so that it doesn't take a year or more to disburse these funds to the fishing industry because it is an emergency situation in the groundfish industry.

There's no question it's a very good suggestion. We ought to have a mechanism already in place so that it doesn't require this time line that is clearly unwarranted.

Well, obviously there is somewhat of a difference of opinion about whether or not the SFA, the Sustainable Fisheries Act, is the genesis of many of the problems that we face today.

Peter Shelley, you obviously think that not enough time has been given for the implementation of this Act, is that correct? Do you acknowledge that there are any problems with the Act and the way in which its been implemented, which you've heard here today for example?

Mr. SHELLEY. Absolutely. There's no question. As I said it was a major new shift in the fisheries management policy and even if it weren't the execution of a law that has to be implemented through this Council structure and the complications in the Council

planning and NMFS rule writing and all of that, has never been smooth. So there are a lot of glitches.

What I am concerned about is asking Congress to be very rigorous when it looks at the glitches, and to ask itself whether Congress is the right place to try to fix those glitches or just to comment on them and issue a very strong mandate that these have to be ironed out. They have to be worked out.

I was just thinking about the maximum sustainable yield. If you took all the fishing boats and turned them into scrap iron tomorrow, I don't know if it would take 10 years to reach stability at sustainable levels of all the fish populations or what they would be. A computer apparently knows this, but I don't in my bones know it, and so I think working through what the congressional intent here was is something that's going to be addressed very differently every Council. It will take time.

In the Pacific Northwest they have different approaches so that I don't know if you'd hear the same testimony about the set of problems there you will from New England. But I just think there are very fragile linkages between causes and effects in fisheries management and there are a lot of unintended consequences. In fact, Penny Dalton, when she was teaching me fisheries management when she was a staffer, said you've got to watch out for the unintended consequences. A certain idea might sound like a great idea, it might sound like a great fix, but it could destabilize a whole important part of the fishery, forget about the environment. I've never forgotten that, and thanked her for that.

I would recommend Congress not take a snapshot now and say this is broken, this is broken, this is broken, because a lot of those things have been broken for 20 years and we're now reaping the harvest of that breakdown. I think Congress' job in my mind would be to keep looking forward to improvements to the system and thinking long term strategically.

Senator SNOWE. Well, I'd like to have the others comment. Do you think enough time has passed to fairly judge the implementation of the 1996 changes? Pat?

Ms. PERCY. I really do. It's 3 years. We're in 1999. I think it has so adversely affected people. It's anecdotal and it's also real. We know people who have been put out of business. So that it has not been helpful.

I do agree that there is always an unintended happening, but you can't forget the basis of our state which is rural and it's made up of all these little villages that run our towns and cities. And it's the people in them. I think that it has, although the intent may have been fine, what has actually happened is not wise, prudent, or helpful.

Senator SNOWE. Barbara, you've been on the front lines, no doubt about that, and I should say you've done an excellent job. I know it's been a lot of hard work.

Ms. STEVENSON. Thank you. It has been definitely time enough to see the problems, some of them were obvious from the beginning, but some of them are more obvious from the interpretation of Congress and intent that the National Marine Fishery Service took.

Unfortunately, the only decision other than deciding that fish need water and making a list of fisheries that have actually been SFA based, that the Council has done was the setting of a backstop for Gulf of Maine cod. Fear that the stock biomass would be too low this year is the reason that they put the backstop in, because it was a target TAC.

So from the New England Council's perspective, the only actual management issue that I know of that we dealt with potentials of SFA is what caused us to have the 30 pound trip limit. So I think that we definitely know that there are problems, and all I see is much worse problems as we move away from managing groundfish as a unit toward managing each different groundfish stock. That's something we tried years ago and abandoned because it did not work. We do not have the information. Maybe in 2096 we will, but we don't now.

Senator SNOWE. You mentioned in your testimony that when the Council made a decision on cod, that they were working on information that was 2 years old, is that correct?

Ms. STEVENSON. Yes. The information that the Multi-Species Monitoring Committee uses and that comes out of NMFS is essentially 2 years old when the Council uses it to make a decision. I used to laughingly joke that NMFS was 2 years behind; I didn't actually realize that they really were. They do a good job of showing trends, but as another example in the Gulf of Maine cod, there's obviously a lot more cod than we projected.

I don't think there's anybody that questions there isn't more cod. Why and why it's doing this is another issue. But we just have to remember that we don't know everything we wish we knew.

Senator SNOWE. Does NMFS respond to the fact that you have 2 year old information?

Ms. STEVENSON. One of the other things one of my committees was doing was working on trying to get it down to 1 year and they've said that that's absolutely impossible because of this peer review issue. This is the science center, not—

Senator SNOWE. Yes, you mentioned the Northeast Fisheries Science Center. Now, they don't coordinate sufficiently with the Council on timely information?

Ms. STEVENSON. They do some things.

Senator SNOWE. Do they address issues that you have raised, or do they address other issues?

Ms. STEVENSON. No, they have multiple roles. Like one reason Maine was so opposed to the United States joining NAFO was because we knew that that would take a lot of the scientific effort away from fishery management and on to international stuff that's always more interesting. So they have a lot of obligations. And no, I do not want them to stop doing the surveys, there's a lot of good to be gained from that, but they don't want to respond to the question that the Council wants an answer to if it's not sexy or whatever.

And this has caused, at least in my mind, some very serious problems, because there's some basic questions that the Council needs to know and specifically in this instance, the stock issue, that are very important. I don't actually care what the answer is if they would give an answer. But the sense that—and yes, they

need to do some basic research, I'm not saying they should spend all their time and effort doing whatever Council says to do, but there needs to be some balance and there needs to be more interaction between the actual scientists and the actual fishermen and the actual managers, and not isolation.

Senator SNOWE. So when the Council made the decision on groundfish, on cod, would the Council have made a very different decision initially had they had more updated information? Knowing what you know now.

Ms. STEVENSON. We knew what the trends were, and I don't think that they would have made any different decision except for that relating to Gulf of Maine cod in the coming year, and that was primarily—

Senator SNOWE. This is what Maine wanted.

Ms. STEVENSON. Right. This is primarily predicated on the fear of what would happen next year based on—because we haven't even gone into control rules yet. Based on the fear of what the SFA guidelines and control rules might force us to do in the next year.

Senator SNOWE. Craig.

Mr. PENDLETON. My only comment is that I'm far from an expert on details and all I can relay to you is that through the interpretation that NMFS has looked at the Act and implemented policy, I guess I personally have been affected by it through limited entry plans, snapshots in time that they picked the qualifying dates, if you had historical participation in this small window.

Most of the people in this room who go fishing have participated for 20, 30, 40 years. If I didn't participate in that little 3 year window I'm out. And that's a tough one to swallow, especially if you go back to Pat.

And he commented we always survived by going shrimping, lobstering, scalloping, dragging for groundfish. I mean, we did everything. And now I can't—economically it's been not devastating to me, because my boat's efficient, we manage it well, but it has become very difficult to know what the right decision to make ends up being.

Senator SNOWE. What was the reason for the creation of your alliance, the Northwest Atlantic Marine Alliance?

Mr. PENDLETON. Basically I had started out—a side comment, it was Lucy Sloan, who is in the audience, about 20 years ago grabbed me by the scruff of the neck and told me I better start participating or they were going to take everything I owned away, so now here I am.

Basically I had participated pretty heavily through Amendment 5 as an industry advisory, and if you want to bitch and complain, you better be involved. So I did that. And I just felt that everything we had suggested had been turned around and just thrown down backward to us and I just felt totally disconnected from what had happened, that I was just frustrated. And while at that point we hated Peter Shelley for creating the lawsuit that led to the consent decree, if it wasn't Peter Shelley, it was going to be somebody else. I mean, it was a disaster, and it was a mess.

But basically it was a bunch of different organizations and individuals coming together out of sheer frustration to look at how can

we do this differently if we had an opportunity, and I'll be the first to admit that for the past 5 years I've lived in a fairy tale world.

I completely have disregarded what's happening because I can't deal with what you've said several times already, five changes to the cod fish plan in a year. I mean, tell me another business that could even attempt to operate under those conditions. It's impossible. But I guess I've just given up on that, I run my business day to day, pray to God I make the bills, and I focused on 5, 10, 15 years from now there's got to be a better way to do it. And that's pretty much——

Senator SNOWE. I can understand what you're saying about the impact and this feeling that you're dealing with issues that seem to be beyond your control. Hopefully this is something that we can try to rectify in some reasonable way.

Peter, obviously you think that over time that the Act will work well. But you said that the standards were too narrow. Do you think they should not exist?

Mr. SHELLEY. It will be interesting to really take them out of the Act and see if anything changes. I suspect it wouldn't.

Senator SNOWE. You've been hearing a lot today about the impact of not considering very seriously one of the standards, is the one concerning the socioeconomic impact of regulations on fishing communities. So obviously it does have some bearing. If that weren't in the Act, what would be the impact?

Mr. SHELLEY. Maybe I didn't say it correctly. I think they should have some bearing. They should reflect some national consensus on where U.S. fisheries should be headed. The goods and the bads and balances that the agency and the Council and everyone who fishes should pay attention to.

Let me just take an example of a community and apply socioeconomic standard 8. You can go on the Maine coast and the socioeconomic needs of Portland, for example, in Southern Maine, I would suggest without any data whatsoever are just totally different from Stonington. Portland's a different situation and the strategies that need to be developed and would support the Portland community are very different from the ones that would support the Stonington community.

And so to have a single standard saying the community interest should be taken into account is a broad design rule. These National Standards support virtually every plan, and then when you couple that with broad agency discretion in the courts, it's really pretty hard to have any plan violate a National Standard depending on your interpretation of the National Standard. That's not what Congress intended.

But for a variety of reasons I would like to see Congress deal particularly with this issue, again, of economic efficiency versus some sort of priority of access of local marine-bound communities to the resource that could be economically inefficient. I mean, that's something that is just bumping heads in New England right now. We've looked at the National Standards and I can't see a pathway through congressional intent that would resolve that design in one way or another. I think both sides can pull out a National Standard and run up the flag and say our fishery ought to have the most allocation.

New fisheries. You know, if there's a new fishery, a local community isn't able to gear up or switch over into a fishery investment—herring is a good example—even though a lot of it used to be caught by these communities. It takes time for a community to develop the infrastructure, the marketing plan, the distribution links, all the things that you need to have to land. But if they have to compete with a large factory processing ship that's working for a company that has in-house all the experts it needs to do the science, the economic, the marketing, the distribution, a place like Stonington will lose out.

So what I'm trying to say is I think there's merit to all of the standards. They can all be twisted rightly and wrongly, and what I'd like to see is more of a national discussion about how Congress would like to keep some of these balances structured in the Standards issue.

Senator SNOWE. You just heard Craig say that he can't keep up with the pace of change, so that to have many more changes in a given year, it would be difficult for anybody to have to live by those changes. It's a matter of law, but it's almost impossible to keep up, let alone to understand the impact that it has on people's livelihoods.

Mr. SHELLEY. And that's absolutely true. First of all, in terms of the congressional reconsideration of the National Standards, I put this in the longer category, not in the immediate fix category. But the basic fishery is changing. Fishermen's priorities have changed. As Craig said, he can't get into fisheries that he always used to depend on in off years.

So things have happened. Is Congress happy with those changes? These are structural big picture kinds of changes. One of the reasons we're involved with Craig and trying to build this Northwest Atlantic Marine Alliance is that change does happen in this resource. Every fisherman knows it.

I only needed one fishing trip to demonstrate to myself there was no way I was going to get off that boat and jump in my pickup and pound 9 hours to go get ignored in an advisory committee meeting. So this is based on personal experience.

We want to disaggregate some of this decisionmaking so that when the decisions get made they can be changed very rapidly, but there's always local input. This will require breaking of a system that's one big body into smaller management districts. There are a lot of options available.

I do think some of these decisions on economic community impacts are better made in the mid-coast area, for example, than down in Danvers thinking about the entire socio-economy at the New England coast down to New York City. I just don't see how that's going to work at that scale.

Senator SNOWE. That's an interesting point. First of all, did the Council consider the economic impact on groundfish in their management plan? Who didn't have the economic information?

Ms. STEVENSON. Well, what Penny said was that when they were trying to make decisions in Washington they would have to do the economic analysis there. The Council frequently does not have the economic analysis when it chooses between alternatives, and for instance in the discussion this week, in discussing the different alter-

natives, one of the alternatives we had no information on, no economic information and very little biological information. Very difficult to make decisions when that's the basis you're making it on. Even though each Council member has to bring all of what they believe to the table, you do need to have some clue what the financial tradeoffs are.

While I have the mic, both sides of me are talking about lessening the area where you make decisions and I very much believe in having fishermen participate in the process, but you have to remember that fish swim, and one of the problems we're having now is that there is a dividing line between us and Canada in the Gulf of Maine, and I don't think that—when you're talking about fish as opposed to clams or something that actually stay—that you can get a much smaller unit than we have now.

It may not make me happy, but I just don't see how when the fish swim from here to there, and you can be as conservative as you want, but if you don't have some influence over what other people do in other places, you'll never get anywhere.

Senator SNOWE. Do you think the Council has too large of a jurisdiction?

Ms. STEVENSON. I think it has too small a jurisdiction.

Senator SNOWE. Too small a jurisdiction. In what way?

Ms. STEVENSON. Well, for instance, right now we're having a lot of—we just developed the whiting plan, and one of the major problems in the whiting plan is the bycatch in the squid fishery. And while up here we have addressed almost all of the bycatch issues and the industry has implemented the Nordmere rate and other things, we have constant inter-Council fights over the issues of who is going to control the squid fishery which is the primary thing that will allow whiting to recover or not.

Senator SNOWE. I think I got Peter's idea on this, but is there anything that was good about the 1996 Act for the record? Elevating National Standard 8—and I say elevating but I don't mean to the exclusion of the other objectives. I don't want that misunderstood. Is there any way, Barbara, that you could tell us that we could fine tune that issue or perhaps, should we leave it alone?

Ms. STEVENSON. Well, I think you need to address the wording of National Standard 1 that no one, particularly the fishing industry, wants fish overfished, but there's a broad range that can be there so that you can take some of these considerations into consideration.

Mr. SHELLEY. May I speak?

Senator SNOWE. Yes, you may.

Mr. SHELLEY. Just to observe that, and it relates to the time factor, in how Congress integrates social and economic issues into fishery management planning and places restrictions on what people go out and catch. The New England coastline has lost thousands of jobs well before the SFA. Stonington lost its gill net fishery before the SFA. And the thing that most concerns me, I guess, because I really do believe in the future of this fishery here as well as the fish and want to get New England back to being a world competitor instead of an importer on fish, is that you can hurt people with a thousand cuts just as surely as you can hurt them with one decapitation.

It's a very difficult balance to strike about the current pain in the industry versus future catastrophe or accommodating one group's social and economic objectives over another's in terms of a very real importance of getting recovery in time for a larger group to be able to survive the transition from overfished to sustainably fished. There's no answer that I know of. But I just think that a black and white kind of approach is, in my experience anyway, probably not valid.

Senator SNOWE. OK. Any other comments? I want to thank you very, very much. You've been very thoughtful and I thank you for taking the time and sharing your views with us and we'll be asking for more in the future as we proceed in this process, but I really thank you for sharing your perspectives here today.

[Recess.]

Senator SNOWE. This is just one of many ways in which to get comments on the reauthorization process. My staff and Jay Cummings up front, he has a list of names and people who have indicated they would like to make some comments. I'm going to try to limit them to 3 minutes because there have been a number of people who want to make some remarks, so I have to limit to 3 minutes at this point. OK? Jay.

Mr. CUMMINGS. Ed Bradley.

STATEMENT OF ED BRADLEY, ATTORNEY, VESSEL SERVICES

Mr. BRADLEY. Senator Snowe, thank you for the opportunity. It's refreshing to see a Senator in the State of Maine paying the attention you are to fisheries with the information you bring to it and background you bring to it. It reminds me of for the first time in a long time the long series of representatives we had who had your concern in Congress, and I appreciate it.

Senator SNOWE. Thank you for saying so.

Mr. BRADLEY. My name is Ed Bradley, I represent Vessel Services here today. We're a principal tenant of the fish pier and the primary supplier of ice and fuel to the fishing industry in northern New England. The reason we're here is because we have seen in the past 4 years rapid decline in our ice and fuel sales. We feel as though we are the canary on the pier. We are watching the decline of the fishery.

I am going to cut the comments that I had prepared. I have written comments I'll give to your staff. I'd like to put my comments in the context of what I've heard already today. Ms. Dalton has said we've had remarkable progress in New England. Ms. Stevenson reminds us that the progress comes from Amendment 5 and Amendment 7, not from the SFA. The SFA we've all heard today, person after person, has caused significant problems and significant fears, and the fears are that the situation that has occurred in Stonington, the loss of their fishery, is occurring in Portland and will occur in other ports throughout the state. So the question here today, you posed it time and time again, is what is there about reauthorization and what is the problem? I think it's fair because of the cod situation that occurred in New England last year where the SFA operated for the first time suggests that it's the SFA that's the problem.

In a very simple way, as a lawyer, I have gone about the process of analyzing the Magnuson Act as it existed and what the SFA did. I think there's three points to be made with respect to that, because I think it's fair to go back to Magnuson to see what SFA did and how in the regulations NOAA interpreted those in order to get to the point where so many of us feel the balance is gone, the flexibility is gone, the pace has increased, and socioeconomic factors which are critical factors that have to be taken into account can't be considered under the new SFA rule.

The first thing that happened under the SFA was that overfishing and optimum yield were redefined. That is the critical change that was made from a legal point of view. National Fishery Service interpreted that in its regulations with a quotation. It said that National Fishery Service believes that the lack of flexibility imposed by ascribing such a fundamental role to MSY was clearly the intent of Congress. I agree. I don't think you can blame the NMFS for that change, changes that occurred and the language of the SFA.

If you wanted to get back to the balance and the flexibility that occurred, that the Council had under the Magnuson Act, you go back to the definition of OI and you'd redefine overfishing, and that would be a clear indication of what Congress' intent was with respect to modifying the FSA.

The second thing that happened was, I think from talking to you and other people in Congress, that the SFA thought by including National Standard 8 that it was elevated, in your words, the importance of the impact on fishing communities.

In fact, I think it did something much less. It subordinated in effect by changing OI, the definition of OI, socioeconomic factors, to MSY. Now, according to the guidelines and the regulations that NMFS has passed, there is no role for the impact of fisheries, of socioeconomic impacts on management decisions at fishery communities except insofar as it adjusts the 10-year rebuilding rate for MSY in certain circumstances. So that's my legal analysis. I could be wrong, it's preliminary.

Senator SNOWE. You're saying that because we changed it to maximum sustainable yield from optimum yield that that essentially subordinates National Standard 8 because of the objectives of maximum sustainable yield.

Mr. BRADLEY. And the language in optimum yield which says that you can take these factors into consideration only insofar as they adjust the goals of MSY. I don't have to guess at this, this is an explicit language of the regulation that—

Senator SNOWE. Right. Exactly right. It was that language. So that certainly could be in conflict.

Mr. BRADLEY. Well, in fact what it's done is I think changed Magnuson which was a fisheries management act to the SFA which is a fisheries preservation act. And that may be the right decision, that's for others to decide, but that's what happened.

If you want to bring it back into the balance where the councils had the discretion to consider socioeconomic factors in the context of making decisions about conservation and resource, you have to at least understand what SFA did.

Whether bringing it back to Magnuson-Stevens is the right way to go about it or as Commissioner Lapointe suggested by creating a special category of prioritizing the stocks. I'm not suggesting, but it's clear to me what happens.

I want to make one more point and I want to address this directly to the role of NMFS. We have chosen MSY as the guiding light for fisheries management under the SFA, but it's clear that there is an incredible amount of uncertainty, scientific uncertainty in the estimation of MSY, and there's no guidance there what to do, from Congress what to do when that uncertainty exists. And it exists with respect to every fishery. NOAA has filled the gap, NMFS has filled the gap. Essentially what they've said is where there is uncertainty Council should adhere to precautionary approach stated by the FAL in its code of conduct.

What they've done is they basically implemented a concept, as I understand it, a risk aversion, into the process where there is uncertainty. You've heard all day about whether it's best science or worse science, about the uncertainty in science.

It's inherent, it's implicit, it's endemic in the system, and if you're going to approach every bit of scientific uncertainty in the system to avoid risk to the stocks and not to the resources of the people in the communities that need to utilize those stock, you're in a situation where you're on a slow decline and a slow train to hell. So, thank you very much.

Senator SNOWE. Thank you very much for those comments. They were very helpful. Next.

Mr. CUMMINGS. Raymond Swenton.

**STATEMENT OF RAYMOND SWENTON,
PRESIDENT, BRISTOL SEAFOODS**

Mr. SWENTON. If you don't mind I'll stand. First of all I want to say thank you for coming here and holding this hearing, and I want to let you know I voted for you.

Senator SNOWE. Thank you. Now, I didn't ask him to say that.

Mr. SWENTON. I'd like to introduce myself. My name is Ray Swenton, I'm one of the owners of Bristol Seafoods here in Portland, Maine. We're a wholesale processor. We have over 40 employees. We're on the Portland Fishing Pier and one of the first ones to build there. Actually, I worked for another company back then when we built, but I took over the company in 1992. We've had steady growth regardless of what's going on in the fishing industry since.

I would still like to address a couple of little problems. Obviously, the fishing industry in Maine has been in a state of decline for a number of years. I moved here from New Bedford, Massachusetts, actually in 1978 because I married a Maine girl and I always wanted to live in Maine. I'm glad I did. All five of my children have grown up in this state, and I've very proud to say that Maine is my home. I know some people from down East would say I'm from away, but my heart's here.

There is an inherent problem that I see with what's been going on, and that is very simply this: the shoreside facilities—whether it's vessel services, whether it's Bristol Seafoods or my competitors and friends down the street.

I've simply been ignored by the National Marine Fisheries, ignored by many subcommittees and organizations. We are the bulk of the employment in the State of Maine and the fishing industries. Not just the vessels, although we cannot live without the vessels. We cannot live without the fishermen, we need them.

We, however, have other alternatives, and I'll give you a classic example. My company is alive and thriving today regardless of what the National Marine Fisheries has done, regardless of what Section 8 or whatever amendment has been made because I've gone out of my way, invested the money, and actually bought fish overseas and in Canada and from other ports throughout New England. I have to, I don't have a choice.

I cannot survive without seafood, I cannot employ people without seafood. But there's been little or no help, no organization, no communication—especially no communication from the Federal Government and unfortunately very little from the State of Maine directly to processors.

I've been in the fishing industry since 1974 when I graduated from college, and I've never, ever received a direct request from any government agency ever to say what is your company doing, how many people do you employ, what do you plan to do in the future, what is your impact on the socioeconomical barrier that you're in. Why? That's my big question.

Shouldn't National Marine Fisheries, should all of this involve shoreside processors? The fishermen need us, we need the fishermen. The economy needs us. The impact on the socioeconomic development of Portland, Maine, the greater Portland area, the State of Maine, the economy as a whole is directed impacted by the \$277 million. And basically all we want to do is say three things I see: we need better communication through the Federal Government and state governments directly to everyone involved in the fishing industry—I don't know how you do that. Notifications, not just find out about it in the Portland Press Herald, or find out about it from the Fishermen's Forum or some other fishermen's voice magazine.

Direct communication. I mean, the IRS audited me, they know who I am, why doesn't NMFS know who I am.

Information flow. Send out something from your office, sending out something from the state. George Lapointe, I'd like to see information from the State of Maine, not just from NMFS and as so many other people have said today, knowledge is power and with the science that we have in this country we should be able to really find out what's going on in our oceans, really find out besides just some statistics, find out what's going on in socioeconomic development of the fishing industry and the impact on the State of Maine as a whole and New England, and the entire country for that matter. And, once again, communication, information, and knowledge is something that—

Senator SNOWE. Those are valid points and we certainly want to make sure we include you on our list. You should be informed. Was your company always down on that fish pier?

Mr. SWENTON. Yes. I bought the company that I used to work for. I ran the company, we bought the company in 1992 and we've been there ever since. We've gone from 12 employees to 40 employees. Gone from \$6 million in sales to \$20 million in sales. So we've had

very good success. But unfortunately not all that success has been because of American seafood.

I've had to import a lot of fish from Norway. Haddock is my primary product and with the decline in haddock stocks, although they're coming back a little bit now, and 40 percent of what I sell is haddock.

In 1994 I couldn't find any haddock, to speak of. I took a trip to Norway and found frozen sea haddock, frozen right off the boats. Gutted alive, 20 minutes it's in the freezer, bring it back here, thaw it out and cut it, now I sell frozen sea haddock all over the United States. I sell a lot of it right here in the State of Maine. Haddock is the favorite fish of most Mainers and most New Englanders.

Unfortunately, fresh fish is so inconsistent. We have an abundance at one time of the year and then we don't have it. We need a steady supply. Unlike beef, which you can get every single day at discount prices, seafood fluctuates with season, with catch, with quotas with spawning cycles, etc., and it's very erratic. In order to smooth that out, I use a lot of frozen sea cod. Give my customers the choice.

Wouldn't it be wonderful if all these fishing boats that are going out of business somehow could get converted to be factory freezer boats, and do the same thing the Norwegians do, freeze the fish and I'll buy it from there instead of the Norwegian. Love to do it.

Maybe there's something that we can do to help the boats, I don't know. We're talking about building a new freezer right here in Portland. I want to build a freezer for my own use, I need a freezer, but I just as soon go in conjunction with someone else or partnership, whether it's the city of Portland, whether it's the state of Maine or whether it's Americold Freezers down the street.

I'd love to work with someone else instead of having the capital come out of my own pocket. I have a very good working relationship with People's Heritage Bank here in Maine and I wouldn't mind working with them to do something. However, it's a big risk, it's a lot of money expense. Once again, no information, no communication.

Senator SNOWE. Do you work with the officials here in the city of Portland?

Mr. SWENTON. Yes, we do. Actually, my partner is on the Board of Directors of the Fish Pier Authority. I belong to Waterfront Alliance, I belong to a United Seafood Processors meeting, but once again we're fragmented. We don't communicate enough. It's our own fault to some degree, but I'm sure you're a very busy person, but I'm a very busy person. I don't have time to run around to a lot of different meetings, and if I don't get communication and I find out about it last minute and my son's got a baseball game, guess where I'm going, I'm going to baseball. Just like when I'm done here today I'm going to take my 5 year old to a birthday party. I'd like to stay for the next umpteen hours until you're done, but priorities.

Senator SNOWE. I understand what you're saying. Your priorities are correct. And I thank you. You made some excellent points and valid ones at that and we certainly will put you on our list and hopefully as a result of your presence here today others have heard

and know about you and what you're doing. Obviously you're very successful and I want to keep it that way and help you to continue to be successful. Thank you.

Mr. CUMMINGS. Gail Johnson.

STATEMENT OF GAIL JOHNSON, FISHERMAN

Ms. GAIL JOHNSON. Good afternoon, Senator Snowe. I'm really pleased that we have this opportunity to explain how the present Magnuson Act affects us fishing people in Maine. That's what you had said in your letter so that's what I'm addressing.

As you know, my involvement in fishing began in the late 50's, but it has changed profoundly. At present my husband and I own a ground line vessel. Although our home port is Portland, both boat and husband are working out of Nepal, Brazil.

The Magnuson Act is not completely responsible for this big change, but it did figure in the decision. The Act itself is one thing, but the guidelines that implement it have made it a very difficult standard indeed. Specifically, our boat has a limited access ground-fish permit and it may be gone.

Because of the impossible standards for reducing overfishing and rebuilding all the stocks within such a strict time limit, the Fishery Management Council has to find ways to limit the possibility that more fishing effort may be expended than currently is. And this obviously could come from presently unused permits, which ours is. Because we decided to take our effort out of the area, we may be ousted from the groundfish fishery.

And we're talking about Stonington a lot today. Well, this person was from Deer Isle, but we're inquiring about some groundfish gear that he had for sale. We asked him why are you selling this and he said well, I can't make a living on the reduced amount of cod fish that I'm allowed and I cannot keep going fishing and throw away all the cod that I can't keep. I won't do it. Instead, he's lobstering and you may have heard, if not you will hear, about what lobstermen may think about other people entering their fishery, what they consider their fishery.

Another reason our boat's in Brazil is the HMS, highly migratory species, management measures. The National Marine Fishery service did not agree with the reasoning and the United States is explicitly zealous in enforcing the ICCAT recommendations on those who fish for the highly migratory species and in accounting for seemingly each and every mortality, fishing mortality.

Although in concept, and I emphasize in concept, this may be the best thing to do, it is really difficult when most of our international counterparts are avid and I do not think that this sends the best message. Thank you again, and I look forward to trying to make the Act work for fish and fishermen.

Senator SNOWE. Gail, you're saying that the changes in the Act, 1996, basically forced you to fish in Brazil?

Ms. GAIL JOHNSON. It wasn't a straight line kind of thing like that.

Senator SNOWE. That's what evolved.

Ms. GAIL JOHNSON. It evolved because most of us could see where the implementation or the passage of that Act, even before it was passed, that the time had come when the various powers

that be decided that the fish were getting a bad rap, that they're going to be fished into extinction, and all of these things that we heard on the radio and the television, at various meetings, those were the people who were able to get their message across the best, and the voices that I consider the voices of reason that say it just doesn't quite work that way, it would be really nice if it did, but it doesn't.

It seemed—I guess in the press it seemed paltry responses, and once we saw where things were moving, we realized that probably if another opportunity presented itself where we could absent ourselves for a while, it would do everybody good, but I didn't realize that absenting ourselves for a certain period of time might mean forever.

Senator SNOWE. Well, we hope it isn't forever.

Mr. CUMMINGS. Craig Pendleton.

Mr. PENDLETON. I was asked by one of Maine's only industry representative advisory committee people to bring to you just a chart that reflects a lot of the inadequacies that we've heard time and time again. This first chart that I have, this reflects the location of the industry advisors to the groundfish committee. You can see that there's two people from Maine, there's two people from New Hampshire, a zillion from Massachusetts, and I just think this is a clear illustration of why we can't have good consensus on plans. Bill does a wonderful job and he takes this very seriously, he's a wonderful guy, so I'm doing him a great discredit.

Senator SNOWE. No, that's a very revealing chart.

Ms. STEVENSON. That's the chart of projected biomass that I was talking about that this goes into the future, the doubling that we've already done and showing where we're headed. This is all pre-SFA.

Senator SNOWE. Who produced those?

Ms. STEVENSON. Well, Bill produced those, but the Council produced the original charts. And that's history.

Mr. PENDLETON. And I think it's pretty interesting to show that in 1994 it looks like we bottomed out, which a lot of people were saying we thought that was the bottom and we saw improvement after that. Here we are in 1999, 30 pound cod limits.

Ms. STEVENSON. And that's all pre.

Senator SNOWE. Thank you, that's very helpful. Thank you. We'll have to get copies of those. But in terms of the representation, they should be fair and balanced. Representation from the Council to the advisory committee on the highly migratory species, it should be fair and balanced. That was the whole argument on the New England Council and the loss of representation.

Mr. PENDLETON. A lot of us, especially on the industry advisors side, a lot of us are just—we won't do it. And that's part of Maine's problem is that we feel that we've just given and given and given and I can't give the time anymore. It's not to be my benefit. I can affect fisheries management by speaking with you directly, speaking with Penny directly or doing something else, but I just can't go to the meetings anymore.

Senator SNOWE. You don't feel that your advice on the industry panel is being heeded?

Mr. PENDLETON. I don't believe it.

Ms. STEVENSON. One of the recent problems and one of the reasons that there's so few people from Maine on there were the physical and property threats that the people from around the panel had to endure, and when you're not sure you're being listened to and there are actual real threats to your property and to yourself, you're highly unlikely to participate. I hope the Council will resolve that problem and that we can get more people to participate, but it is a very bad——

Senator SNOWE. That's truly regrettable. Thank you very much, Craig. Thank you, Barbara. Next?

Mr. CUMMINGS. Reverend Ted Hoskins.

**STATEMENT OF REVEREND TED HOSKINS, MAINE SEACOAST
MISSIONARY SOCIETY**

Reverend HOSKINS. I hope I can see this with my tri-focals here. I wish to thank you for the invitation to this hearing and for the opportunity to speak with you, most particularly, I want to thank you for a story you told at the fishermen's forum a couple of years ago that ended up, and I'm sorry to leave the punch line without the whole story, with Emery Smith died, boat for sale. Not too many heard that or we would have had some more laughter.

My name is Ted Hoskins, and I'm a Missionary Pastor with the Maine Seacoast Missionary Society. I'm boat minister aboard the Sunbeam, and the outer islands are my parish. But I come to you specifically today as a member of the Stonington Fishery Alliance, a community based diverse group from a variety of fisheries who adamantly refuse to give up on fishing as a way of life.

The Stonington Fishery Alliance is committed to the ecologically sound development of sustainable fisheries. Not just in stock enhancement and through harvesting, but also through bottoms up participation in fishery management. Our members include Jen Brubar and Robin Alden and Kathleen Billings and Ted Ames among others and we're not about to give up on the Coast of Maine and the thousands of family fishermen who make up its communities. It's out of this common commitment that I speak to you. Somehow, a way must be found within the Magnuson Act to enable some degree of decentralized management. And beyond what is happening to fish stocks, the socioeconomic consequences that we've been talking about of the present form of management are indeed awesome. The damage is hidden in strange places: child abuse, substance abuse, family break-up, financial ruin.

What do these have to do with fishery management? Well, a great deal, because what we're really talking about is community health, a sense from within of the future, of valuing personal skills, a feeling that I as a person can provide for my family.

We've been so caught up in the stock management and the time-frames that we have essentially ignored the equally important parts of the law that have to do with the socioeconomic impact on communities and individuals. It truly is a complex issue, but that's not reason to ignore it. Its consequences are so great that that's all the more reason that we need to attend to it very carefully.

But back to fish, and that also is an unbelievably complex issue. The whole ecological interconnection of the varied species with their tentative unpredictability speaks volumes of the need to put

management as close to the ground as possible, to the source, to the place where things are happening.

Because of its unpredictability, decentralization is essential so it can follow and respond to the changes that are constantly happening. For another thing, this decentralized management leads to more effective stewardship of the resources. This is the water I fish, this is the territory I know, these are the fish habits and behaviors that I have learned, and it is my kids who will or will not be able to fish here in the future.

Yet another problem with the regional framework is that it ends up as a place for businesses operating on a regional basis. The system benefits them, it does not benefit always the local fisherman.

Can we find some enabling legislation that allows smaller units to operate under the Council level. Let's face it, for the most part the damage has pretty much been done. The local family fishermen has basically been squeezed out of every Federal fishery. Jan Brubar reports that in 1980 Stonington had 28 gill netters and four draggers. 1991, 18 gill netters, one dragger. 1999, three gill netters in all our town.

The family fisherman is pretty much out of scalloping and ground fishing in Federal waters managed by the Council, and the herring plan now in discussion as it is will probably eliminate traditional herring fishing that used to be and belong all up and down our coast using an ancillary fishery to fill in the gaps. That will happen no more.

People in these fisheries no longer participate in the debates. They've given up, they've gone home, they've lost the hope and they've sold their twine and just let it go to rot. They stay home; it's too far to go, it would cost too much to take out 2 or 3 days of fishing not to be listened to or dealt with in terms of changes, it's no longer worth it.

And as we've just noted, even committee assignments in the regional council reflect that this great fishing state of Maine has been left out. Towns like Stonington used to have an adaptable fleet. They were flexible. They could go from one fishery to another when stocks went up and down in one area or another. Top down council management has destroyed for the most part that option.

It's an awesome thought, but for the most part the Coast of Maine is dependent upon one fishery now in terms of its in-coast waters, and that of course is the lobster. As it stands now, if the groundfish come back they're probably fished by people from elsewhere, from Gloucester, from Portsmouth, from someplace else.

So where do we go? We start where it counts, in the communities and the homes where Maine's fishermen live. Rebuild local responsibility and I ask that once again we gain our voice. Give us some room, break away from the rigidity of the rules and the deadlines that make so little sense in the changing and flexible world of the sea, provide us with some time to develop good science built on carefully nurtured exchange and trust between scientists and fishermen. If we work together, neither we nor our children will ever see that obituary, my chance to go fishing, dead boat for sale. Thank you.

Senator SNOWE. Thank you very much.

Mr. CUMMINGS. Charles Bourget.

**STATEMENT OF CHARLES BOURGET, TRADITIONAL NEW
ENGLAND HARPOONER'S ASSOCIATION**

Mr. BOURGET. Good afternoon, Senator Snowe, thank you for this opportunity to address you. My name is Chip Bourget and I represent the Traditional New England Harpooner's Association. We want to thank, again, the Senator for her interest and participation today.

Her immediate understanding that all traditional fisheries involving independent owner/operators are in danger of being eliminated by NMFS' ongoing policies is imperative. If control of the national resources are left to the whim of NMFS, an industry of segmented oligarchies will prevail and future discussions like today will not be necessary.

I've been working with your personnel over the past 2 years. We know of your concern regarding traditional fisher people. NMFS' violation of the public trust and existing mandates are well documented and too numerous to detail at the moment. Regional councils and 5 year plans may have been well intended, but as in the Soviet Union where the use of the saying was common, the results only enhanced the politically connected and disenfranchised the masses.

Because common sense and fair play are not considered or factored into the process, basic free enterprise and the successful results that free enterprise economics naturally produce are eliminated. History has proven this to be self-evident in recent history within the Council's behavior. In cases where NMFS' attorneys can't simply eliminate traditional fishermen through arbitrary control dates, landing area, or other extraneous values of conditions, then a policy of divide and conquer prevails, relying on economic attrition to wilt and independent owner/operator's chance of survival.

We cannot allow NMFS to send us on any more fool's errands. Because of your past and present involvement in the fishery system, industry is relying on you, Senator Snowe. Hopefully, your counterparts in this State will follow by example. Whatever inherent rights industry has at this time must be facilitated. It would seem that congressional hearings are overdue.

The Traditional New England Harpoon Association again wants to thank you for your support in its endeavors both past and present and wants to thank you in advance for your assistance in the future. Indeed, if we are not successful, then socialism, always a latent threat, will prevail.

Two quick comments on latent permits. NMFS could have called latent permits, underutilized permits, conservation permits even—conservation orientated permit—but they chose to call them latent permits which has a connotation of demise.

I suggest that that's a spin, a negative spin on industry, and its efforts to curtail its fishing efforts during bad times. The other thing is on this airplane issue, they've got, as you well know, reams and reams of information with regard to the airplanes, the spotter planes, and the only thing they can come up with at this point, conjecture, is that when we offered to support the government in its endeavor to eliminate the airplanes they dropped the ball com-

pletely, and I don't think they really want it to win. Thank you for your time.

Senator SNOWE. Thank you for your comments.

STATEMENT OF MR. ARTHUR PIERCE, FISHERMAN

Mr. PIERCE. Senator Snowe and staff, thank you for coming and thank you for allowing me to speak. I have prepared a paper that I'll leave with you, because there's a lot of information that I can't give you in 2 or 3 minutes. Management, fisheries management, must include consideration of all the fisheries and species together because of their interaction and versatility of fishing.

I'll give you an example. If you put a herring quota on, Maine's lobster fishery depends on herring now more than it ever did because of all the other fish being depleted. Or if you don't balance the herring quota with the need of the lobster industry, we may end up with a lobster industry that we feel is artificially propagated, in other words they're farming it without anything to feed them.

This is some of the things that need to be considered when you're dealing with fisheries, not just one species at a time. Another thing is the representation. Maine is the leader in lobster conservation and responsible for approximately 50 percent of all lobster landed in the US. But we are the least represented per person, for a participant, of anybody.

Voting power should be based on state landings and numbers of harvest. This would take the politics out of it and it would leave the common sense in the people that know what they were doing in that particular area to manage.

I remember when we were talking about having the Atlantic States Council come which was actually the lesser of two evils because NMFS wasn't cooperating, so we figured we'd take North Atlantic States Council because at least we had three votes on it, but here's New Hampshire with a coastline you can spit—well, not spit across, but throw a rock across—and they are just as equally represented as we are. But we went with the Atlantic States Council because it was the least of the two evils. We never should have to do that.

One of the reasons that our success, our lobster fishing has been successful, is that the people want to obey the rules. That's why the United States is successful. That's why we're the No. 1 world power, because we believe in the country.

If you just rely on punishing people to keep them in line you're going to fail. Every country that has done that has failed or in the process of failing. But we are different. And so is the lobster fishing. We deal with these rules because we believe in them and we have done them. While the Federal Government allowed, for a long time we notched lobsters to protect the female bearing eggs, they allowed them to be caught in the Federal laws.

The State of Maine did not allow that. We didn't allow any diving for lobsters, we didn't allow any dragging for lobster. The Federal Government has allowed it. And yet they tell conservation, striking down all of our efforts. And this is something that we really need to take a look at because if they destroy the confidence of the people that are in the fishery, that's a bigger blow than the bio-

logical impact, because there aren't waters enough to keep people from bringing in the sharks if they want to. The reason they're successful is because we believe in it. Thank you.

Senator SNOWE. Thank you very much. Next?

Mr. CUMMINGS. Brian Burke.

**STATEMENT OF BRIAN BURKE, TRADITIONAL NEW ENGLAND
HARPOONER'S ASSOCIATION**

Mr. BURKE. Thank you, Senator Snowe. Thank you for your help. I appreciate your frustration because I have been doing this, started in 1988, a long time. I'm going to make this brief because there are other people that want to speak. I am not in favor of the permits being taken away. A lot of permits were acquired prior to the 5-year moratorium. I've held my permits way back to 1977. I got out of the drag in the mid-80's because I had a small boat and it wasn't very profitable. So I held my permit, did all the paperwork, with the anticipation of the fish coming back.

So I don't think it's fair to yank a latent permit because somebody tried to be an ecologist. You don't reward somebody that's trying to help 100 percent. And in science, I think yes, we do need best science, not best available. That kind of leaves you with a question mark. I agree with you on science is the way to go. I mean, I'm a college grad, I do know that if you have extremely good science you're going to get good results. I hear about these advisory panels, whether or not they have any muster.

Well, I went down to Rhode Island to the advisory panel to the highly migratory species, and they had a special private session with the people there except for NMFS and they were trying to figure out if they had any credibility, would NMFS listen to them.

And then I also heard later on after they resumed, they asked Mr. Matlock do we have any credibility, and will you take into advisement what we say. Well, he said maybe, maybe not. That's not a very good answer. I mean, you have an advisory panel, you should use it. I mean, even though you disagree with them, you still should listen to them, because we certainly didn't get this country the way we did by not listening. As you know, the Constitution took quite a long time to be put together. So I thank you again very much for trying to help us on the airplane issue.

Senator SNOWE. Thank you.

Mr. CUMMINGS. Peter Innis.

Senator SNOWE. On that point about advisory panels, that's something we'll explore again because these advisory panels should be very important, and we want to encourage people to serve on them, not to be ignored because it has an impact on the process. So I'll certainly look at that issue again.

STATEMENT OF PETER INNIS, FISHERMAN

Mr. INNIS. Peter Innis, fisherman, Portland. I'd first like to address the comment made by the National Marine Fisheries Service on the cod fish discards. They said that we thought that we could work with the closures the way they were and not have the amount of discard that we did, and I'd like to say to her that under their data, we probably could have. We probably could have worked and

not seen the cod, but their data is so far off that we kill thousands of pounds for nothing. There's no way we could avoid the situation.

Another thing I'd like to address is the powers of the Magnuson Act, the agenda of the people enforcing the law, is kind of like a Bible. I hate to use the Bible with a pastor in the room, but as an example, if you go through history of people who have read the Bible like the crusaders and they've gone to the Middle East and butchered people, and you've got Mother Theresa who has read the Bible and she saved people.

Now, Magnuson's the same way. We want to know which way is it going: right, left, or is it going to go down the middle. That's our main concern with the law. And we don't want to have influence by conservation groups that are radical which seems to be happening now. Thank you.

Senator SNOWE. Thank you very much.

Mr. CUMMINGS. Kevin Dow.

STATEMENT OF KEVIN DOW, COMMERCIAL FISHERMAN

Mr. DOW. How do you do. My name is Kevin Dow. I'm not as happy as everyone else to be here. I've got 88 days to fish, I'm a commercial fisherman. Some boats have 120 days to fish. How does this figure, where is it fair? Regardless of how I came to it, right now I've got 88 days. Regardless of someone didn't file the right form. Some people have considerably more days than others.

How is this fair? I want to be fair from the start. I mean, you're talking about equal. Well, let's be equal right from the get-go. I want the same days as everyone else. I want to be able to go where I want, but that's beside the point. I want to start on equal foot with every other fisherman or every other species. If 88's the day, that's the day. If it's 120, I want 120 days.

I mean, I'm a family man and a father and everything else, too. I've got to support everyone. But what reason is there for different days? That's my question I guess.

Senator SNOWE. How long have you been fishing?

Mr. DOW. All of my life.

Senator SNOWE. All of your life.

Mr. DOW. I mean, I'll go into telling you my dad did it and his dad did it too. By rights I should be grandfathered and half the people in this room, but that's besides the point.

Senator SNOWE. And you weren't grandfathered?

Mr. DOW. Excuse me?

Senator SNOWE. You weren't grandfathered? What do you fish?

Mr. DOW. I'm a commercial fisherman. The cod fish thing, that was sort of fair, that 30 pound limit. That was sort of fair. At least if you had a 5 foot boat you could have 30 pounds; if you had a 100 foot boat you could have 30 pounds. Unless you was outside the 42 line. Well, I've only got 88 days and there's boats here with considerably more. Now, one law is fair, I want it all fair. That's everything I've got to say.

Senator SNOWE. Thank you.

Mr. DOW. Thank you.

Senator SNOWE. I appreciate that, Kevin. Thank you.

Mr. CUMMINGS. Gary Libby. Roger Libby. Steven Train.

STATEMENT OF STEVEN TRAIN, LOBSTERMAN

Mr. TRAIN. Hi, Senator. Thank you for giving me an opportunity to speak. I didn't prepare anything, I really didn't know this hearing was coming until I read the paper yesterday morning, but I would like to address a couple of issues that I feel are relevant to me and my community.

I live on Long Island which is a small island off the coast of Portland here. We were a coastal fishing community. Back before there was a lot of money in fishing, the only people that were fishing were the people that lived in the coastal communities. We had a run in the 80's where there was a lot of money, 70's tail end, now there's a lot of money in lobstering, although I think it's starting to fade a little bit, and there's a lot of lobstering.

On the island now what we've got left is lobstermen. We used to have long liners, we used to have gill netters, we used to have dragnets. The single species management approach is going to conflict seriously with the socioeconomic impacts if the lobster species falls, because these people do not have their permits. I do not have my multi-species permit anymore, I couldn't make a living with it. I was dropped from 500 pounds day to 200. I understand the process behind that, that's OK. I selected to go lobstering. Everyone else on the island did too and I'm sure it's happened up and down the coast in all the coastal communities. We just heard Stonington's down to one part-time gill netter. If the lobster population collapses, you've got two parts of this Act that are going to seriously collide, because you cannot afford to do anything when that lobster population collapses. That's not going to seriously affect all of these fishermen.

Traditionally we have all been fishermen. We haven't been shrimpers, we haven't been ground fishermen, we haven't been lobstermen; we've been fishermen. We move back and forth, and I really think this Act has to be examined to look at it in this way. Thank you very much.

Senator SNOWE. Do you think there are conflicting mandates?

Mr. TRAIN. I don't think you can manage the species, single species management and prepare to address the socio-economic impacts unless you know that people can move back and forth between fisheries. They have to keep going for the most productive one until there aren't any left. And then where do they go?

Senator SNOWE. Thank you very much. Next?

Mr. CUMMINGS. Kevin Simpson. Susan Johnson.

STATEMENT OF SUSAN JOHNSON, ARTIST

Ms. SUSAN JOHNSON. Hello. Thank you for mailing me the letter so I could be here today. I appreciate it. My name is Susan Johnson, I am an artist, an environmentalist, yet I do not belong to any environmental organization. I am an animal rights activist, yet I do not belong to any group. I am a vegan, which is a person that does not eat any animal product or use any animal product in their lifetime. There are millions of us in this world.

I have lived my life by the ocean for this world which includes the Atlantic Ocean, the Pacific Ocean and Indian Ocean. The Caribbean, Africa, the East Coast of Africa, Kenya, and the ocean of the Caribbean, mostly the U.S. Virgin Islands. I have also lived at

Lake Tahoe, and yet I am a resident and a born native of this area. I have lived in the Hawaiian islands. I am very familiar with the problems of oceans and fishermen, the fishing industry and fish especially.

The decline of fish in the Pacific and Atlantic Oceans is also due to human gluttony. Never has a human being been less deserving of being called civilized as during my lifetime and especially now. The use of animals and fish for entertainment and recreation has gone overboard. Gluttony and greed abounds in every country I've lived in.

Unnecessary reaping of the ocean bounties must be policed and curbed. National and international disobedience of fishing rules must be punished and publicized if those rules are to be taken seriously. The right of the fish to be considered on this Council must be as important as the voice of the human being. Who is speaking for the fish today? We're talking a lot about them but so far I guess I'm the only one.

We must know how to coexist with the animal environment. Fish and the animals of this world are our most treasured gifts on this planet. We do not have to exploit or even use or eat animals and fish in order to live a rich, healthy life.

Harvesting 6 millions pounds of fish is absurd and asinine for a country overfed with the wrong kind of foods already. The fishing industry must modernize itself and know that alternatives to eating fish exists, that nutritious foods from the sea include types of seaweed and sea vegetables which can satisfy people's desire for the taste of the sea. That, too, has to be regulated so seaweed is not over harvested, nor the sea vegetables.

There are also non-sea products which resemble lobster and fish and meat which contain no animal product whatsoever. There are better and nutritional alternatives from the earth. For all the protection available which Magnuson-Stevens seeks to employ and enforce, it needs to be strong enough.

The Congress of the United States of America must take us into the year 2000 with a dynamic enforcement of conservation and management principles and encourage complete alternatives to polluting our nation's oceans and seas with boats and vessels. Stop the blatant overfishing of the greedy and inconsiderate people and companies for doing damage as we speak.

Never has there been more violence in our society of human against human, children, against society, and people against fish, birds, and wildlife and all animals. We must go to alternatives to blood foods, because a violent diet results in a violent world.

We will not get rid of the violence against humans without first respecting the animal life that lives in this world with us.

Child abuse and animal abuse go hand in hand. Where there is child abuse there is animal abuse, where there is animal abuse there is child abuse. As a knowledgeable vegan, I'll be willing to serve on a panel as representative of the fish. Fish needs representation from their point of view and alternatives can be supplied. Thank you.

[The prepared statement of Ms. Johnson follows:]

PREPARED STATEMENT OF SUSAN JOHNSON, ARTIST

September 27, 1999

13 Cromwell Street
 Kittery, Maine 03904
 tel 207 4397438

Reference: *MAGNUSON-STEVEN'S FISHERY conservation and MANAGEMENT ACT*

Dear Senator Olympia J. Snowe and Committee,

Thank you for the hearing at Portland, Maine on September 25, 1999. As I began to explain, we are at a point in time whereby we must consider the rights, needs, and give respect to those precious creatures which we share this planet with—*FISH, lobsters, shell life and coral.*

Millions of vegans (folks who do not eat meat, fish nor fowl nor use any of their products) know that the healthiest life on earth is that which does not use animal products nor cause any invasion into the sea and ocean and wildlife areas in order to satisfy taste buds.

Never has the taste of blood of animal and fish altered us as human beings to the extent that humans are becoming irrational and violent creatures, as now!

Youth cannot be taught to respect life and each other without first teaching dire respect for creatures such as fish and animals and birds.

There are thousands of alternatives to eating meat and fish. Identical appearing alternative to fish, itself, can be made from either soy, grain, or seaweed products which are baked and served to appear just like fish and even have the taste of the sea evident! Yet not one creature's life is sacrificed at such meals. A whole, rich industry which creates and offers such non-violent foods must be encouraged and even fishermen, who must face the changing tides of time, can be educated to produce the alternatives. Modernization happens. Reaping more fish and herding for slaughter more cattle is not the way to peace and true civilization. It causes problems much like the ones in our oceans now. Foreign countries must not follow our ill examples of greed and exploitation of fish.

Thank God for the beginning of conservation in the Magnuson-Stevens Act, just make sure it is stronger and better at the enactment time.

The problems of the fisherman is to be expected in this changing world. Destroying ourselves by violent diets and violent resulting acts can be avoided as our nation and world goes towards respect for all living creatures and beasts and thus find respect for each other of the human race. The old newspaper articles from Kittery and Eliot read that the beaver industry was coming to an end and all hunters said it was the end of their world. Yet they went into other jobs (after the extinction of beavers here and not a trace of their temporary suffering nor even a beaver exists today in this area or Maine.

I urge the panel / Senate Subcommittee to face the facts of need for the strictest conservation of our oceans, seas, and lakes and make the act even stronger for the good of all in years 2000, 3000, 40000, etc!!
 Thank you...Susan Johnson

Senator SNOWE. Thank you very much, Susan. Next.
 Mr. CUMMINGS. Philip Conkling.

**STATEMENT OF PHILIP CONKLING, PRESIDENT,
 ISLAND INSTITUTE**

Mr. CONKLING. Senator Snowe, nice to see you again. I started off with good morning, but I was a little optimistic there. In preparing for this hearing, I have reviewed testimony submitted by the Island Institute in March 1995 when the Magnuson Act was previously being amended. The substance of the remarks I would like to offer for your consideration today are virtually the same as those we offered 4½ years ago essentially advocating the adoption of an ecosystem basis for fisheries management.

It seems clear to us that until we change the fundamental ways in which fisheries management councils are directed to act, we can never hope to achieve any of the broad social goals of Magnuson. We will never get to those goals if we use a species by species ap-

proach focused almost exclusively on reducing morally defined measures of fishing mortality.

Let me repeat that. We will never get to the goals of Magnuson with a species by species approach or even a multi-species approach focused almost exclusively on reducing narrowly defined measures of fishing mortality if we continue to ignore such common sense approaches as protecting spawning grounds and nursery grounds, considering predator/prey relations, and accounting for basic food webs that ultimately link all species in a system.

In the simplest terms, FMPs that seek to achieve, as you've heard today over and over, maximum sustainable yield for a predator species on the one hand and a prey species on the other hand, this is simply doomed to failure. In ecological terms, it leads to system degradation and ultimately to fisheries collapses. Yet, we continue to do this over and over again, banging our heads against the same wall.

Most recently the New England Fisheries Management Council adopted an amendment to the multi-species groundfish management plan in order to reduce fishing mortality on depleted groundfish populations in the Gulf of Maine.

However, the Council adopted a plan that not only did nothing to protect the few remaining spawning aggregations and critical spawning grounds in the Western Gulf of Maine, but actually enabled these aggregations to be targeted for an intensive fishery. The solutions are simple to articulate but hard to accomplish.

We must shift fisheries management to a system based on ecosystem principles. Thanks to your leadership, Senator Snowe, Section 406 of the 1996 Magnuson-Stevens Act mandated that the National Marine Fisheries Service convene a panel to make recommendations to Congress on proposed actions to "expand the application of the ecosystem principles in fisheries management and conservation." And I was privileged to serve on the national panel that was convened to make those recommendations which was comprised of fishermen, scientists, state and Federal managers, conservationists—a real cross-section.

Essentially, the central recommendation of that panel is that the Magnuson-Stevens Sustainable Fisheries Act be amended to require fisheries management councils to adopt fisheries management plans subject to an overarching fisheries ecosystem plan or FEP.

There are people, many people, including some in NMFS who say this is really too hard to do at this point because we don't know enough to do so. But a lot of this, and there are some very specific, sort of eight steps that were outlined by this panel, that are guidelines for how to get there. They essentially involve the collecting of place-based information of which fishermen, among others, are expert at making. And it is—one of the key provisions is to integrate more sources of information including those in the fishing community so that we're not just having a research system that's based on a few people in a top-down system collecting the information.

So each FEP should include the following eight components:

One—these are fairly common sense things—one, a description of the geographic extent of the ecosystem.

Two, a conceptual model of the food web.

Three, a description of the habitat needs of different life history stages for the plants and animals that represent the significant parts of the food web.

Four, a description of how total removals, including incidental mortality, relate to standing biomass.

Five, a description—and this is key—a description of how uncertainty is characterized and what kinds of buffers the plan includes against uncertainty.

Six, an index of biotic integrity.

Seven, a description of long term monitoring data that is necessary.

And eight, a description of the biophysical human and institutional elements of the ecosystem which are outside of the range of Council and DOC authority.

Now, there is a project that many people in this room have heard something about, and it is in a way a little experiment of how you might go about trying to implement an ecosystem management plan in a NOAA funded project in Penobscot Bay that's looking to try to get a predictive index for what the future of lobster populations might look like, and we're integrating in that several sources of NOAA data that are being collected four times a day, every day, that don't normally get integrated into any FMP that I've ever seen, and those are sea surface temperature measurements that tell you kind of what's happening out there on a day to day, month to month, season to season basis, and is it different than last year. I mean, you have to know those things to know whether things are increasing or decreasing naturally or as a result—how do you separate out our own effects from natural effects.

And there's a system of buoys, and then there are the fishing boats. Now, we put interns on the backs of lobster boats to collect pretty detailed, what we thought would be highly confidential information that would be hard to get, and we thought that if we got maybe 25 boats to participate we'd be making a good step.

The first year, 78 boats participated in Penobscot Bay, and this year 123 boats participated. And this is a sea change, and it represents a huge increase in the amount of information that can be made available, but you need somebody other than regulators or regulatory agencies that are helping to collect that data, because of all of the problems that we've heard today. So I think that that project does provide some helpful insights into how you'd actually do this on the ground.

Senator SNOWE. Sort of like Don Perkins was trying to encourage innovative approaches.

Mr. CONKLING. Absolutely. So we would like to work with you on getting this report which is actually available on a web site, but I think it's going to be printed just as soon as the government can find some money.

Senator SNOWE. This is the report that the Council delivered to the Agency a year ago, right?

Mr. CONKLING. Yes. It was delivered, I believe, in July before the October deadline.

Senator SNOWE. Yes, we have not seen it. NMFS hasn't followed through on the rules yet.

Mr. CONKLING. Yes, but I think——

Senator SNOWE. We have not received it yet. So their deadline has long since passed.

Mr. CONKLING. Right. And part of this can be done through regulation but part of it will need to be done through changes in Magnuson. I look forward to working with you on this. Thank you.

Senator SNOWE. Likewise. Perhaps you can submit that.

Mr. CONKLING. We certainly will.

Senator SNOWE. Next.

[The prepared statement of Mr. Conkling follows:]

PREPARED STATEMENT OF PHILIP CONKLING, PRESIDENT, ISLAND INSTITUTE

Background

Good morning, Senator Snowe and thank you for this opportunity to speak today on the future of fisheries management policies that will guide us in the years ahead.

I speak today on behalf of the 3,500 members of the Island Institute who come from diverse backgrounds throughout the region, in addition to 47 of the 50 states in the country. The Institute was founded 16 years ago on the belief that the islands and waters of the Gulf of Maine represent a national treasure, not only because of their abundant natural resources, but also for the immensely powerful cultural significance of the hundreds of small fishing communities that dot the rim of the Gulf of Maine. These working waterfront communities collectively offer the nation an increasingly rare picture of lively but fragile traditional villages based largely on connections to a living maritime heritage of which we are all stewards for future generations.

In preparing for this hearing, I reviewed testimony submitted by the Island Institute in March, 1995, when the Magnuson Act was previously being amended. The substance of the remarks I would like to offer for your consideration are virtually the same as those offered four and half years ago, essentially advocating the adoption of an ecosystem basis for fisheries management.

The absence of an ecosystem based approach to fisheries management has led us down one blind alley after another, and will continue to do so until national legislation mandates a significant change in the way that plans are drafted. Let me give you one example. Most recently, the New England Fishery Management Council adopted an amendment to the Multi-species Groundfish Management Plan in order to reduce fishing mortality on depleted groundfish populations in the Gulf of Maine. However, the Council adopted a plan that not only did nothing to protect the few remaining spawning aggregations and critical spawning grounds in the western Gulf of Maine but actually allowed these spawning aggregations to be targeted for an intensive directed fishery.

When we allow such terribly misguided decisions to become national policy, we are doing something much worse than just kidding ourselves; we also deepen the cynicism of those called on to make sacrifices in days at sea and we undermine the credibility of the entire management system. And finally and most tragically, we are systematically damaging the system's ecological resiliency, and greatly delay the beginning of rebuilding programs for populations of cod, haddock, pollock and hake that have been such essential economic lifelines to fishing communities for 400 years. Yet when the Councils ignore such crucial ecological information such as spawning ground protection, they are not violating any provision of the Magnuson-Stevens Sustainable Fishery Act; they are operating entirely within the bounds of what the law prescribes.

It is clear that until we change the some of the basic ways in which the Fisheries Management Councils are directed to act, we can never hope to achieve any of the broad societal goals of Magnuson, namely a healthy marine environment and sustainable fisheries. But we will never get there with a species by species approach, focused almost exclusively on reducing narrowly defined measures of fishing mortality. Let me repeat that: *we will never get there with a species by species approach or even a multi-species approach, focused almost exclusively on reducing narrowly defined measures of fishing mortality if we continue to ignore such common sense approaches as prohibiting fishing on spawning grounds, protecting nursery grounds; considering predator-prey relations, and accounting for basic food webs that ultimately link all species in a system.* In the simplest terms, FMPs that seek to achieve maximum sustainable yield for a predator species on the one hand, and a prey spe-

cies on the other, is doomed to failure. In ecological terms, it leads to system degradation and ultimately to collapse.

Guidelines for Ecosystem-Based Fisheries Management--Fisheries Ecosystem Plans (FEPs)

The solution is simple to articulate but cannot be accomplished without Congressional leadership. We must shift fisheries management from a species by species approach to a system based on ecosystem principles.

Thanks to your leadership, Senator Snowe, Section 406 of Magnuson-Stevens mandated that the National Marine Fisheries Service convene a panel to make recommendations to Congress on proposed actions to "expand the application of ecosystem principles in fishery management and conservation." I was privileged to serve on the national Ecosystem Principles Advisory Panel which consisted of a broad cross section of fishermen, scientists, state and federal managers and conservationists. Its recommendations can be boiled down into one central strategy around which all other recommendations revolve: We believe the Magnuson-Stevens Sustainable Fisheries Act should be amended to require Fisheries Management Councils to adopt fisheries management plans subject to an overarching Fishery Ecosystem Plan or FEP.

FEPs should provide the basis for making management decisions for maintaining ecosystem health and the long-term sustainable production of fisheries resources of the ecosystem. Further, FEPs should identify problems and threats to ecosystem integrity and sustainable fisheries. To establish the basis for these determinations, each FEP should include the following eight components:

1. A description of the geographic extent of the ecosystem(s) that occur(s) within the range of Council authority, including characterizations of the biological, chemical, physical and human dynamics of those ecosystems.

2. A conceptual model of the food web.

3. A description of the habitat needs of different life history stages for all plants and animals that represent the significant food web and how they are considered.

4. A description of how total removals—including incidental mortality—are calculated and how they relate to standing biomass, production, optimum yields (OY) and trophic structure.

5. A description of how uncertainty is characterized and what kind of buffers against uncertainty are included.

6. An index of biotic integrity or a reference standard which serves as both a benchmark state and a target for management.

7. A description of available long-term monitoring data and how they are used.

8. A description of those biophysical, human, and institutional elements of the ecosystem which are outside of the range of Council/Department of Commerce (DOC) authority. A description of how those elements which most significantly affect fisheries will be addressed in achieving the objectives of both FMPs and FEPs.

The FEP should be used as a yardstick against which all fishery-specific FMPs are measured, to determine whether or not management effectively addresses the ecosystem Principles. The FEP may also contain regulations or management measures which extend across individual FMPs. The FEP should serve as a nexus for existing FMPs and provide a context for considering Council management actions with respect to all living marine resources, whether managed or not.

Shortcomings of Current Essential Fish Habitat Requirements Some of the ecological information is already being collected on a preliminary basis, as a result of the essential fish habitat requirements of Magnuson-Stevens. But the manner in which NMFS is currently implementing this section of the law, often based on incomplete and inaccurate landings data applied to huge geographic areas, has produced few usable results. The current approach offers little insight on how managers should begin to integrate the kind of place based ecological information which is required for successful fisheries management.

Innovative Ecosystem Based Model for Maine Lobsters

Here in Maine, the Island Institute has been involved in administering an innovative ecological research program which we believe offers a model of the kind of information required for an ecosystem-based fisheries management program. Significantly, this program, known as the Penobscot Bay Marine Resource Collaborative, utilizes information collected from sources not usually considered in fisheries management to address basic questions about Maine's lobster fishery.

Maine lobsters are harvested from both state and federal waters where conflicting management regulations and different perceptions of the status of the fishery have caused long controversy and sharp conflict. Federal lobster biologists have predicted that the Maine lobster fishery is on the brink of a steep decline because such a high

percentage of females are harvested shortly after they become reproductively mature. They have recommended steep reductions in effort to reduce fishing mortality. Fishermen and state lobster managers have resisted additional regulation, because they believe Maine lobster conservation laws which protect egg bearing females and over sized lobsters as brood stock have been responsible for the steady increase in landings.

In order to address these fundamentally conflicting views of the status of the lobster resources, a team of scientists, managers and fishermen have collaborated on an innovative program to collect additional ecological information from Penobscot Bay, the center of Maine's lobster industry. This project, funded in large part by the NOAA's National Environmental Satellite Data and Information Service (NESDIS), utilizes past and present sea surface temperature data sets collected by orbiting satellites to derive highly detailed pictures of long term temperature trends in the waters around Penobscot Bay. Ocean buoys deployed in the region have yielded new and surprising information about current patterns that allows us to "see" how and where larvae are delivered to the Bay. Detailed maps of bottom habitats have been prepared on the basis of side scanning sonar. And finally fishermen have invited researchers aboard their vessels to record for the first time "sea sampling" data on the numbers of juveniles and brood stock returned to the fishery. This past field season, 123 lobster boats participated in the sea sampling program.

NESDIS' Penobscot Bay project is an example of the kinds of new information that will be required to put fisheries management on an ecosystem basis. Place-based ecological observations are the kind of information that fishermen routinely collect during the course of fishing and represents an important new source of information that can be tapped. But this will require the development of new protocols and the acceptance of new methods and actors in fisheries management so managers can access sound fishery-based information from fishing vessels that are willing to cooperate in research. Fisheries managers also routinely need to access sea surface temperature, ocean color and inferred current patterns from "high-tech" satellites on a near real time basis to understand the changing dynamics that affect fish distribution and abundance. The Penobscot Bay project demonstrates that these approaches are both practical and possible to implement now.

However, without changes in the law to require that these sources of new information which represent the "best science" available to be considered, the successes of the Penobscot Bay project and other innovative ecological work being conducted around the country will remain just isolated examples.

In closing, Senator Snowe, the Island Institute looks forward to working with you in the months ahead to devise amendments to Magnuson-Stevens that will continue to build a fisheries management program at the national level of which we can all be proud to play a part.

Mr. CUMMINGS. Mathew Thompson.

STATEMENT OF MATHEW THOMPSON, FISHERMAN

Mr. THOMPSON. I had a few thoughts on—it looks to me like history shows that the Georges Bank and the Gulf of Maine and the Grand Banks, Newfoundland supported 10 nations for something like 300 years. It's been about the last 25 years that we've really had these recurring problems, and if we look at what the shift has been in the last 25 years, it's been getting away from harvesting fish with hooks. It's been getting into big nets, big boats, big heavy groundfish gear, big heavy scallop drags.

I think that a 130 foot boat with 1000 horsepower towing a net that's 200 feet wide is destructive to habitat. Now, I don't have a computer model to prove that, but to me it seems sort of like saying cigarettes cause lung cancer. You know, tobacco industries say well, you got no proof, but we've got a lot of sick people that smoke. We have a lot of ocean but no fish in it, and we have a lot of draggers, and it seems to me that a huge reduction in technology would be to take some of this dragging gear and turn it back into long line gear. And I don't buy that there's no money. For the price of a couple of good nuclear bombs, I think we could really rebuild this industry.

And I think another thing between commercial fishermen and between the National Marine Fisheries Service, particularly the science department at National Marine Fisheries Service is the fact that to a fisherman, you are very accountable for your actions. We get up in the morning, we go to work, we untie the boat, we're responsible for the crew that we take out with us, we're responsible for the bank, we've got to make payments. It's a yes, no business. And if we don't do it, somebody comes and takes our boat.

And if we look at a scientist who works for the National Marine Fisheries Service and he comes up with a computer model that gets spit out on a piece of paper out of an office somewhere that none of us understand, and this computer model drastically changes our lives, really drastically changes out lives. And if that computer model is wrong, he's still up there writing computer models.

I think if there was some accountability, some peer review, and we could see that—if a scientist came to me and said I'm betting everything on this. I'm behind and I've got my house on the line and this is the computer model that I think works, it would be a lot easier somehow to swallow that pit. I lost my 4500 hook permit because I decided to go fish in Alaska for a couple of years.

I just got back from Alaska yesterday, I was up there this summer fishing. They have some good ideas in fisheries management. I think you can take a 32 foot boat and 4500 hooks and you could let anybody that wanted to go in the East Coast go and it would never have an effect on cod stock. It's a reduction in technology. If we don't take a reduction in technology, we're going to be jumping through these hoops again in another 20 years. We've already lost the herring stock on Georges Bank once, that was in the 70's. We threw the foreigners out in 1970.

I was out there, I've been fishing since I was four. I've seen all this happen already once to some extent and now we're going through the same thing again. It can be simpler than it has to be. We can get back to hooks, get back to a simpler way, reduction in technology. Look at the bluefin tuna industry. It's a harpoon and it's a hook. It's pretty simple stuff. The technology exists to catch them all in a week if we wanted to, but we don't use that technology. So I think it needs to be simpler.

Senator SNOWE. Thank you for your perspective.

Mr. CUMMINGS. Robert Tetrault.

STATEMENT OF ROBERT TETRAULT, VESSEL AND INFRASTRUCTURE OWNER

Mr. TETRAULT. Good afternoon, Senator. I'm a vessel owner and infrastructure owner here in Portland. Let me begin by stating something I believe in very strongly. It is a privilege to fish. We harvest a public resource. As long as we follow the rules and behave as good students of this resource, we should be allowed to continue.

Government programs and senate overcapitalization, the buy back program took out most of that excess. We're back to the core participants, many of whom are tired and beaten. The attendance here is an example of how depressed our industry is here in Maine. Crisis management prohibits the use of business plans for any

practical purpose. Locating rare couplings is an everyday business for us. I couldn't resist.

The management process has let us down. For 20 years now I have been participating in this process and I'm more discouraged now than ever before. We don't need subtle changes to this Act, we need drastic changes. Keep what works and rewrite what doesn't. Maine is about to take it on the chin, the process is broken.

Recognize that the Gulf of Maine is an ecosystem, it should be managed as one. Why not a Gulf of Maine regional council that includes Canadians? Science should engage industry as you have here today. Challenge us to make decisions that we believe in. To be a council member today is to be a martyr. A lot of good people aren't willing to participate in the debate while police and riot gear are standing by. I'm sure Cheryl filled you in on one such meeting.

Maine's industry has downsized to a point where our infrastructure is collapsing. This has less to do with the lack of fish than with the measures we use to control effort. Measures that prohibit the taking of 15 species to protect one, the drawing of political lines where the daily take of 2000 pounds of cod on one and 30 pounds on the other side, state law that prohibits the taking of lobsters on draggers, being in a single box in a historically diverse fishery.

Some would say, and I would believe, that when we're gone the Board will be filled with a large corporate structure engineered to deal with whatever process is permanently in place. The industry as we know it can't continue in this environment. The profit has gone, the fight goes with it. Two of my three captains retired from fishing this year. One of them was with me for 20 years. Both of them couldn't stomach discarding fish. The recent cod problem was the icing on the cake. And these are young men, not old men.

I have one more point, Senator. You spoke of losing our council seat, our at large council seat. I suggest another seat for Maine based on our resource utilization. But an additional at large seat might go the same way the last one did. We may not always be there to assure the Secretary does the right thing. Thank you.

Senator SNOWE. Yes, you're right. First I'm going to get the seat, then I'm going to make sure it's Maine's, then I'm going to change the law to make sure it's always Maine. Next.

Mr. CUMMINGS. David Damon.

STATEMENT OF DAVID DAMON, FISHERMAN

Mr. DAMON. Thank you for allowing me to speak. I'm just a regular person, a fisherman, a person that would like to be all by themselves and don't like to be out in public a lot, so I'm not a very good spokesman.

Senator SNOWE. Well, thank you for being here.

Mr. DAMON. My first thing that needs to be brought up is in the 1970's the government subsidized big business to get into fishing, gave low interest loans to create this monster that we're trying to work with now. Somehow, somebody's got to come to the realization that money is the only thing that's going to bail us out.

I mean, we can't keep on taking all the history away from the people. The heritage is gone. There will be no such thing as a fisherman anymore. You have a big business or no fishermen. I think that's one thing that needs to be addressed.

First of all, there needs to be some more money involved. Maybe there wouldn't be so much fight against our government if we had little subsidies to take up the slack with these problems. I think in the Magnuson Act it has to be there. There has to be some sort of guidelines to regulate how it's being done. It's not that fair at all right now the way it's being done. We've got some boats that get 88 days, some boats get 120 days. You get some boats that can go herring fishing, some boats that can't.

I mean, myself, I went to the herring plan and they don't recognize in my type of fishery that I go herring fishing, but historically I've sent in reports and everything else about herring fishing, but now I can't go anymore because they don't recognize them. There's something wrong with management. Somehow this has got to be looked at and I think the Magnuson-Stevens Act is the only way we have guidelines to go by. Thank you very much.

STATEMENT OF MR. DON MALONEY, FISHERMAN

Mr. MALONEY. Thank you Senator Snowe for being here. I sent you a letter, I don't know if you remember me or my letter, but as the man was talking about, the 120 days to the 88 days, the reason that this exists is because if one boat went more than 88 days, then the other boats did. They didn't have the burden of proof at the time, it was a national system, that's the reason that some people have 120 days and some people have the 88 days. But the thing about it is that they didn't make that available to people to be able to submit this.

Senator SNOWE. You have to show proof.

Mr. MALONEY. Yeah, burden. Absolutely. And that's how that happened. But they didn't tell people that. People had to call them and argue the point and then they would make it available to them. And what they're doing now with this Federal money, this money was made really for the Massachusetts people.

I am a small boat owner. Small boat owners are pretty much history as it's going on. I have several people that work out of the same area that I do, and it's first of all we're restricted, not to be able to fish inside, we have to fish 3 miles outside. Now, of this year, in April, no one was allowed to fish unless we went 100 miles or 80 miles off shore. And then in June, again, we were shut down for fishing in our areas. We would have to go like 60 miles off shore again.

When you have a small boat, you don't have the fuel or the ability to stay out there that long. You just can't do it, it's not profitable. And there's no way that you can make any money on it. And that's, early April and June is your best times fishing. Why would you want to fish when there isn't any fish out there, when the fish aren't transient in that area. Well, it doesn't make any sense.

The National Fishery are saying if we are to get any of this money than we have to show the burden of proof. Back in 1977 we fished in this area, that was shut down. Well, first of all Maine has been shut down 2 years, Massachusetts has only been shut down 1 year. Does that mean that Maine should get double the money that they do or does that mean that we should get it to go back to, instead of 1997, we should get it go back to 1996? We've been shut down for 2 years, they've only been shut down one. They got

shut down one, now they've come up with all this Federal money for these people to be able to get.

Why should these people be able to get \$35,000 and a lot of us people in this room not to be able to get anything. We're out there fishing and we don't even have the damn money to be able to get life rafts fixed. A lot of people don't want to come out and say that, but we can't get \$1,000 of this Federal money that we could at least put toward our boat? No, we can't. And why are these scientists don't talk to fishermen?

Well, during the shrimp seasons, I've been out the last 3 years and these scientists have come over and they've asked us where we fish, how many fish that we have caught, I mean shrimp, and what areas that we caught them in. And so well, they're not going to come and say what do fishermen do when it's a 7-year transit. It goes from bad to good to bad to good, 7 years back and forth.

Well, if they went and said that to the government, they probably wouldn't give them the million dollar grants for them to run. So they always come out with a doom and gloom. They never come out with any of the positive stuff. I do believe as this man said, if you're going to have these rules, they should be there for everyone. One man should not be able to get 120 days and one man should get 88 days. One man shouldn't be allowed to get \$32,000 and one man not even \$1,000 to be able to get his life raft inspected.

Senator SNOWE. That's a fair point. Thank you. Next.

Mr. CUMMINGS. Craig Sproul.

STATEMENT OF CRAIG SPROUL, SMALL BOAT FISHERMAN

Mr. SPROUL. Thank you, Senator Snowe, for inviting me also. I'm on your mailing list. I'm one of those perpetual callers, once a week or every day, so your staff knows me quite well. I'd like to thank you for your efforts in trying to get my additional 30 days in shrimping this year. I'm a shrimp trapper which I consider environmentally sound and I only get 60 days to go fishing when the dragging fleet got 90 days.

On top of that, the Reverend at the Seacoast Mission certainly took care of the social things that I had to speak about, but I'm one of those small boat fishermen who's been at it for about 35 years, and I'm about extinct and I'm about wore out. The shoulders are gone, the knees are cramping up. I put two kids through school and one through college, and the other one's going to finish up, I guess, and I got everything financed right to the top of the hilt.

Well, all I could do is—for a boat I've got a 25, 28 year old wooden lobster boat that I've fished all over the Gulf of Maine, but I bought a 42 boomer which I intended to fix up and it was all I could afford. Well, I can't get the permit switched, but it's not going to matter anyhow because the way things are looking they're going to take them because I can't keep up with the booklet.

Now, the fellow from the Conservation Law Foundation said after a 12 day trip, or a trip of 12 hours or something like that he certainly didn't want to go to a meeting or sit and write a report of anything. Well, he ought to try it for about 4 or 5 days straight and going around the park and he'd really know how most of us feel.

There was something in the original Magnuson Act that was a 45 foot exemption. Under that 45 foot exemption one could float up and down depending on the size of the boat or whatever they wanted to do. I would like to see that put back into the Magnuson Act for the primary purpose of preserving some of the local fishery and small boat fishery firms.

In that also I would like to see the log book eliminated and in place of it to use the landing slips that the National Marine Fisheries Service puts out. They've got all the species of fish that's caught, and I know in selling shrimp to different docks they use those for the shrimp landings. Boat size, horse power and some of the other stuff under that criteria would allow—elimination of those things would allow the people to float up and down within that 45 foot exemption.

I'd also like to get rid of the trips, the days at sea, because the 45 foot boats are only going to get so many days in anyhow. Out of 365 days, he gets 100 days in for most of the year that's going to be damn lucky. In yesterday's newspaper announcing this hearing, it was interesting to note that on the Northeast Peak the Canadians are considering drilling. Well, we gave them the Northeast Peak, so now they don't do that mush scalloping out there, but we do. Now they're going to start drilling for oil and gas. Well, that was in the same paper. At the same time, all of sudden they are going to give the draggers and gill netters 400 pounds of fish a day. Well, that's pretty convenient, particularly since you're having a hearing here today and it comes out in the Portland paper.

Well, it seems to me that before February they could sign the paper to allow these people to get 400 pounds a day. It's just a constant bureaucratic nightmare. I don't want to open my mail up, I can't read a newspaper, I can't pick up anything without in 5 minutes slamming it down. I just can't deal with it. And somebody said that they have to deal with the daily—Craig Pendleton said he had to deal with the daily parts of life.

Well, as a small boat commercial fisherman, I check my boat everyday and you never know when it's going to be half full of water, so the focus of management, I think, should be on gear measures. I don't think there's a shrimp dragger on the Coast of Maine that would go back to fishing with a small mesh net. It's just too much work and he's seen the results of it.

The last thing I want to say because I see the red light's on is that the lobster resource in my estimation is probably the only resource on the East Coast that's renewable and sustainable and yet they keep coming up with more scientific evidence to the contrary. We now have a YK10 whatever the hell formula—excuse me—anyhow, they got this formula some guy dreamed up that's stating they haven't got enough eggs in the water, and yet they don't even include all of the V-tail lobsters that are out there in that survey. So, thank you.

Senator SNOWE. Thank you very much. Next.

Mr. CUMMINGS. Terry Luce.

STATEMENT OF TERRY LUCE, FISHERMAN

Mr. LUCE. Terry Luce. These stories are sickening around my heart, and I'm feeling that there really cannot be an error to do so.

I've fished a lot and going fishing is a good idea, I know how to do it.

Senator SNOWE. Right. And we want to help you to keep doing it.

Mr. LUCE. I'm not a great fisherman.

Senator SNOWE. Well, you've got to start someplace, so we want to help you keep doing it. Thank you for being here—where are you from?

Mr. LUCE. Maine.

Senator SNOWE. Where in Maine?

Mr. LUCE. I was in the Washington Valley, and my mother and father were born in Portland, Oregon.

Senator SNOWE. Well, it's nice of you to be here, I appreciate it. Thank you for your thoughts. Next.

Mr. CUMMINGS. Steven Robbins.

**STATEMENT OF STEVEN ROBBINS, III, SECRETARY,
DOWN EAST LOBSTERMEN'S ASSOCIATION**

Mr. ROBBINS. Thank you, Senator Snowe, for being here today. My name is Steven Robbins III. I'm from Stonington. I represent the Down East Lobstermen's Association. I'm also a member of the Maine Lobstermen's Association. We strongly believe that as an organization people be responsible for their actions, and basically with the short amount of time that I have we just want to emphasize to you that we believe that all species are related within Magnuson-Stevens.

A hundred people have said it here today so far at least. Single species management is highly ineffective and destructive over long term. We strongly believe that industry in part is essential to fisheries management. I myself have served on a number of advisory councils and committees. One thing, just a couple quick points.

I know that industry on an ASMFC level serving as an Area 3 LC&T member, a lot of these meetings are held out of reach. It's a long ways to travel for people. For people to take a day—like today for me, it's almost a 4-hour drive. I don't mind doing it because the long term cost to me is how I look at operating my business. The long term cost is far worse if I didn't show up here today versus taking a day off and giving up personal income.

However, on an ASMFC level, on those advisory committees, these people are not compensated for their travel, or at least for their expenses. I don't think it's reasonable for anybody to require a statement or anything, but I do think—I know this doesn't relate to Magnuson-Stevens directly—but for those people to be reimbursed for their travel expenses at least would help out quite a lot. I know there's a lot of people in the Down East area that have a lot of valuable information that they could submit. They've not real good at writing a letter, practically petrified at getting up there and speaking in front of anybody, but they do have a lot of valuable input and being able to sit down in a small group of people is the best way to go I believe.

I also, just real quick, I also participated in the Penobscot Bay network that Mr. Conkling referred to earlier. I was one of the lobster fishermen that took a sea sample with me, and it's the ideal way to gather data. Carl Wilson who is Marine Resource Outreach

Director or whatever his title is comes aboard the boat in the morning, it's just him, and he's got a \$15 tape recorder and a zip lock bag duct taped to his oil clothes. Everything that comes over the side he measures, it's graded out by size, weight, sex, whether it's egg bearing lobster or not.

This is the type of thing that's cheap, inexpensive and it gets straight to the heart of the matter. So we strongly advocate that, sea sampling, and we hope we can participate further in the future.

Senator SNOWE. Thank you, Steve. We ask for your comments, and I know it's a long way to travel for many of you here today, and I appreciate it. You made a good point about the Atlantic States Marine Fishery Commission.

Mr. ROBBINS. I do think it's a far cry from what we've had in the past with NMFS. My personal feeling is, and it's not intended to insult anybody from NMFS in the room, but NMFS has kind of passed the ball to ASMFC and given them the lead on lobster management, and yet whatever comes out of that forum goes back to NMFS for approval. And when I go to Massachusetts and you have during the lobster board, the management board meetings and all states are represented there and all agencies, and the representative from NMFS when he's asked when do you think we'll actually see the Federal plan and he said well, you know,—there's no definitive answer.

And it's like they're dragging their feet a little bit in my opinion because there's fear of a lawsuit there No. 1. I think that we're always in this position of crisis management. I offered the idea of what if there was money generated for a Federal buy back program for lobster permits. There are some permits out there that I know of that are latent, that aren't used, but when I posed that question to a NMFS official, they said well, lobster isn't, even though it's over fished, it's not in a crisis situation. So I guess the answer to my question was until it gets to that point then yeah, we'll do something. But I'd like to see something else done.

Senator SNOWE. Thank you very much for your valid points. Next.

Mr. CUMMINGS. Andrea Brand.

STATEMENT OF ANDREA BRAND, PROTECT OUR FISHERIES

Ms. BRAND. Good afternoon, Senator Snowe. Thank you for the opportunity to speak today. I am probably not going to be entirely politically correct, and I may offend some people and I apologize in advance, but I want to give you an honest interpretation of the traditional Maine fishing family and what we're going through with some of the measures under the Magnuson Act.

Just this week my husband has received five phone calls from the National Marine Fisheries Service, probably to ask him to answer another survey, to arrange for an observer to go with him, or to tell him that he missed something on his trip reports. Within the past month, we have received 10 mailings from the National Marine Fisheries Service regarding closures in fisheries and things of that nature. I've made over 50 trip reports for him for his fishing activities on two small vessels.

Senator SNOWE. What size vessels?

Ms. BRAND. 35 foot. One is a tuna and lobster boat, and we fish for snapper in the Gulf of Mexico. The other is just a lobster boat. Or actually we have a small dragger for tuna bait. The postage alone for the log books this month was \$36. I mailed them by certified mail to ensure I can prove that we have sent them within the required 15 days. Failure to do so will result in loss of the permits, i.e. our livelihood.

This all seems like a bit much to ask from a man who starts his day fishing between 4 and 6 a.m. and rarely finishes before 7 p.m. at night. Windy days are spent mending traps, replacing line, maintaining boats and home. My husband gives me a percentage of the business to sort through this 20 hour a week mess that NMFS has created of our fisheries and to overburden him with those issues that he absolutely must deal with. And this is very important.

The emotional stress that all of these rules and regulations, this complete and utter loss of personal freedoms that has been bestowed upon us by the appointed officials, cannot be measured by ink and paper. One would have to actually live through this nightmare to fully fathom the depth of the infiltration that this put into our every day lives. It has actually become more than we can bear. It is interfering with our pursuit of happiness and a free and independent way of life that has sustained and fulfilled our families for generations.

My family history dates seven generations on the Fitchburg Post here in Maine. My husband began fishing in Salem, Massachusetts, when he was 5 years old. 42 years of living, breathing, loving fishing each and every day, he's fished for many species from the Gulf of Mexico to the Gulf of Maine. We have become so sickened and dismayed by what he now must go through to put food on the table that we are seriously considering not only leaving the area, but moving to another country in hopes of living a free and happy life once again.

In fact, we may be interested in the lady that said her husband's fishing in Brazil. When my husband started fishing he had two licenses. He had a state commercial fishing license and a state lobster crab license. He could fish for virtually anything in the ocean anywhere in the United States. His experience and sight, the market conditions and the weather dictated what he fished for each day. This year he has 38 state and Federal fisheries licenses. Five he has lost this year due to lack of landings for specific species.

One of the points I've heard mentioned here many times today is not to categorize these into individual fisheries. That's so important. The government now tells him what he can fish for and when and with which boat. We have no recourse for what is happening. All but the very highest officials in this fiasco are appointed. All of the council representatives, the commissioners and most importantly the NMFS officials are not held accountable by the ballot box. We have seen no improvement in domestic fisheries. NMFS writes an F grade for its failure to manage the fisheries fairly and successfully.

The only beneficial change that we have seen is at the state level where our district lobster representatives, one who is here today, are voted on by the lobster fishermen and accountability is high,

performance is a must. The voice of the fishermen is actually heard in that respect. This is the only way to maintain a healthy commercial fishery.

Listen to the men and women who do this for their living. Their opinions and suggestions are not anecdotal, they are the most valuable pieces of information that you will ever obtain. When they said that a gear like rock hopper gear for dragging or spotter planes for tuna fishing is too efficient and too detrimental, we must act on that information immediately. Anyone who has ever set foot on a dragger knows that towing for too long will kill all the fish in the bag. They suffocate from lack of oxygen. If you really want to make an impact, put money aside to research and design fool-proof, cheat-proof gear that will not allow one to tow for hours on end. Short tows and quick culling of undesirable species will release these fish back alive to the oceans.

Escape fence, excluder devices and trap limits are other sensible ways to keep various fisheries clean. Recreational catch and release fisheries should be discouraged. When my son—this is a personal story that I would like to share. When my son got his first BB gun, he asked me if he could shoot a seagull. I was a bit taken aback at first by that because he's not normally a violent kid. And I told him to go ahead. I said he could then pluck it and gut it and I would cook it for his dinner.

Needless to say he's never shot a seagull or any other living thing with that BB gun. I feel the same way about sports fishing. If you're going to catch it and eat it, that's fine. But if you're catching it to taunt it, torture it, take its picture, release it likely dead or injured, and then try for a bigger one, I don't feel that that is so fun. I think it's cruel. We need to teach our children how truly barbaric sports fishing can be.

How many pelicans and seagulls do we think get caught by inexperienced anglers lines every day in this country. I've seen it almost a hundred times personally myself. How many fish die so an angler can feel like he or she has truly accomplished something special?

Taking prime fishing grounds and turning them into marine sanctuaries isn't all it seems on the surface either. I lived aboard our sail boat in the Gulf of Mexico many winters in the early 1990's. When I first arrived there was a small fishing fleet there, a sparsely manned national park. One sea plane that came once a day with tourists and a few charter fishing boats. It was one of the most beautiful and pristine places I had ever seen. Now that the area is designated as a marine sanctuary and has been for approximately, probably about 4 years now that they've had these sanctions in effect, the commercial fishermen are no longer welcome to tie up in the shelter of the islands except in emergencies.

Sea planes come four times a day, there are six of them, and cruise ships such as the Carnival Cruise Lines, ferries chartering tourists by the hundreds, and charter fishing boats. The impact of these eco friendly tourists have been visibly detrimental to the area. Snorklers walk all over the coral heads, cigarette butts are everywhere on the beach, the toilets are flushed from anchored yachts, etc., etc. People are what impact areas. The more people the more impact. Our once well kept little secret corner of the

world has now become over commercialized, over populated, and over exploited, and it will never be what it once was.

Please think long and hard before establishing more eco friendly tourist sanctuaries. Research what has happened to those places now in existence. I thank you for your time and I truly hope the voice of the American commercial fishermen will be heard.

Senator SNOWE. Thank you, you certainly made your voice heard. You are certainly, unfortunately, indicative of the morass of changing regulations in this industry. You're saying that the amount of paperwork that you have to comply with, you and your husband, every week, it amounts to about 20 hours a week?

Ms. BRAND. About 20 hours a week and it has for probably the last 4 to 5 years now.

Senator SNOWE. And obviously gotten worse. Thank you. Next.

Mr. CUMMINGS. Bill Doughty.

STATEMENT OF BILL DOUGHTY, ATLANTIC FISH SPOTTER'S

Mr. DOUGHTY. I want to thank you, Senator Snowe. I'm kind of third string because of bad flying weather I got designated to be here. A little history: I've been in the fishing business and way back in the early 60's one of the methods of fishing and what I did I became a pilot. I've owned eight different fishing vessels over the years, and three airplanes.

I've watched this industry. It's been brought out—if anybody cares, I had in 1997 3,400 pages from the feds, and that was with four permits and what I carried for permits for those four vessels. Your office was made aware of that. Best science: We've heard a lot of best science, and believe me, the commercial fishery is your best science.

We get treated as anecdotal. It is not counted, easily fudged. I have been told everything over the year. At one point we deserved it, because I used to give coordinates to the feds that would have been in the potato fields. So a lot of it we deserve. Like I say, I've seen how many permits. We just had a person say that we only had two state.

I got my first commercial fishing permit in 1963, and Federal waters. That was the first time I was ever in Federal waters. So to put it in a nutshell, we need the commercial fishery and we need to be paid attention to and be part of the science. We're there in real time. We are there in real time. With what we have for electronics right now, there's no need for one observer.

I can put a package together that would be foolproof that could literally take the whole thing, for \$10,000 more added to the boats I have, and it would be foolproof. I have flown around with a camera hooked to a GPS, hooked to a computer, and we got some real good science on Atlantic bluefin tuna. I'm surprised on a small issue of this airplane thing that it's being brought up at a reauthorization hearing for Magnuson.

I hope people are not losing sight that if it wasn't for these airplanes and it wasn't for us shooting pictures, there would be no commercial fishery in the Atlantic bluefin tuna, and I just refer back to 1993 when NMFS did recommend two sites that they should be put on the endangered species list. And at the hearing

if it hadn't been for the Japanese saying what about the American fish spotter pictures, it would have been.

I mean, that was one of the things. And here again in 1996 you must not forget if it hadn't been for the fish spotters, there would be a 50 percent reduction in the quota. Just take our area, early in June there was a lot of fish, and the airplanes can see them, can shoot pictures of them. If you do not have that ability to prove without the fish being caught that they are there and are in the area, I can see the handwriting on the wall.

I do not want to personally have another freedom, because I've lost a bunch of them, and if I want to climb in an airplane to make money, that choice taken away from me—it would be lost in the herring fishery also. I originally learned at 14 years old to fly an airplane for the herring industry.

Let's not get away from best science. We need all the best science. We've been a thorn in NMFS side from 1990. They really only were just taking the picture of the fish and then picture of the land. That can be easily fudged, and the aquarium did set up a very good scientific data gathering, and here again being anecdotal, please do your best, Senator, and look at the whole picture. There are—we aren't out of the woods on this Wright Whale, and don't you think that that won't come back to haunt us. We need eyes in the sky, anybody, to help in that.

Senator SNOWE. Thank you, Bill. I appreciate your views and your comments. Next.

Mr. CUMMINGS. Lucy Sloan.

STATEMENT OF LUCY SLOAN

Ms. SLOAN. Thank you, Senator. I appreciate your indulgence. I'm glad to be back. It's the first time I've spoken at a hearing as a Maine resident, but I've represented commercial fishermen since 1972. The last half dozen years—I moved to Maine a year ago, and a half dozen years before that I was outside the country doing international resource management issues.

But when Bob picked me up this morning he said it's going to be *deja vu* and it is. I look around and I don't know everybody in the room, but the only person I recognize who was at the first hearing I was at in May is Spencer Appelson. There are several things I want, please, for people to remember. One, I understand what you're saying about decentralization. That's what we wanted to do with Magnuson Act when we first passed it.

I was—the first hearing that I was here for was in 1972 or 1973 and it was the Magnuson legislation, and we were decentralized and we were getting away from NMFS. Maybe we need to look at decentralizing further. But for those of you who haven't done all of that, the law was decentralization. And I would urge you to remember that. It may be that we need more.

When it was passed, all of the people who opposed this, the State Department, the Commerce Department, the Defense Department, the National Security Council, and our colleagues at NMFS said oh, well, you don't think this is going to solve all your problems right away, do you? I said no, it will take at least 10 years and probably longer. It's taking longer.

Barbara and Bob and Andrea have addressed a number of the specific problems, but one other point is that at the time that the FCMA was passed we were working also at the law of the sea. Optimum yield was a new idea. We welcomed it because it did allow for a balance, undiscussed and unacknowledged, between the biology and the socio-economics. And when Barbara called me in Tokyo when I was in Tokyo and told me about the SFA, I couldn't believe it, because it's a horror show. It's a complete departure from everything that we in the industry worked for. It's rigid, it's unimaginative, it's arbitrary, I'd be inclined to say arbitrary and capricious. It's paralyzing, as you heard.

So I've been saying that perhaps one of the things would be to go back and look at some of the original possibilities. It was a very short law relatively speaking when it was first passed in 1976. And in the conference report, in the committee reports that led up to the conference, there was a lot of history, a lot of discussion about what we hoped to learn, what we hoped to do.

Balance was one of the major things. The SFA does not allow for the balance that we were delighted to use optimum yield rather than maximum sustainable yield for. We evolved from species by species management into multi-system, multi-species management. Again, we need to do more perhaps. But go back and look at where we started. There are still some good ideas there, it's just that there's very little institutional memory.

So you don't have to come up with lots of new ideas, there are some old ones there that haven't been fully tested. And it may take 20 or 30 years. It's an ongoing process. Thank you very much.

Senator SNOWE. Thank you for that historical perspective. Is Spencer here?

Mr. APPELONI. Good evening, Senator.

Senator SNOWE. Yes, nice to see you. Thank you.

STATEMENT OF SPENCER APPELONI

Mr. APPELONI. Thank you for the opportunity. I did not come here to speak this afternoon, I came here to listen, but I will take the opportunity which you've given me. I've been involved in this business and thinking about it for about 33 years. I started with the Department of Marine Resources and then was Executive Director of the New England Council and spent 8 years on the Council, and three or four thoughts have come to me during the day's discussion which I found very interesting.

I've read the Magnuson Act that was originally passed many times, but had not read it in recent years. But I came away at that time thinking that it was a very good piece of law indeed, and probably perfectly sufficient for our purposes in fisheries management because it was vague and flexible. And it allowed fisheries managers to come up with a compromise to deal with the many complexities and the regional variations that are found in all fisheries. It did not mandate this or that or the other, it simply said use your best judgment in so many words, and I think that's what the councils did.

In many cases the judgments were not good ones, but that was an opportunity lost because mistakes can always be the basis for learning. Fisheries management should allow the states, it should

permit experimentation, science by experimentation, and if there's a lot of mistakes and hopefully it always learns from those mistakes and corrects them.

Now, earlier on you pressed the point of why the council system does not appear to be working in the Atlantic States commission system is well received and does appear to be working as far as the shrimp fishery is concerned, and I think one of the crucial elements in that distinction is that after advisory committee input to the Atlantic States commissioners, we meet for 1 day and make a decision and that's it. There's no review process. There's nobody someplace else who has less information than the Commissioners who review it and pass it on to a second peer review and second guess the commissioners.

The industry likes it and it seems to work, and frankly I think the New England Council which has been given responsibility in management plans ought to be given the authority to implement it. They, after all, receive first hand the input from the industry and all of the other interested participants. They are not bad people, they're not dumb people. They, through good efforts and good intent try to come up with the best compromise as possible.

And it's self defeating them once that has been done to pass it on to somebody else with less knowledge to second guess it. I'm always disturbed, quite frankly—first of all, it's been mentioned several times that because of the complexity of the fisheries process at this time that people are really turned off by it or as was mentioned earlier on, nobody has got time anymore to think about what we're really trying to accomplish here.

There's too much attention and effort and time being spent to make the Magnuson Act perfect. It will never be perfect. What we should be doing—what that futile attempt to perfection has done is divert us away from thinking about fundamental issues. Not nuances in the Act but fundamental parameters. Let me suggest to you in my view there are three fundamental problems.

It's been mentioned earlier on that we are dealing with a community of species. Not one at a time but a community, a system if you will. And it's generally recognized that we ought to be managing on a systematic basis. There's no argument with that. The problem is that we don't understand what we mean by the system. That is to say fisheries managers don't, which is not to say that we lack that knowledge in the scientific world, but that information hasn't gotten as far as I know to the fisheries people.

There are well thought out concepts of how systems are structured and how they work and could be the basis of a sound management system. But those don't seem to have penetrated into fishery science. We should be bringing those concepts into fishery science. If we did, contrary to the allegation that this would make fisheries management much more complicated, it would make it much more data hungry, much more expensive, much more time consuming, contrary to that perception is the probability that if properly implemented it would simplify the whole process and would demand less data.

It would demand fewer amendments and revisions and committee meetings and council meetings and amendments to the law.

There is scientific concepts—I won't say theory but concepts—out there to lend support to that belief.

Second, we are neglecting to think carefully about what we mean by effort control. Everybody agrees that effort control is needed. Those attempts to date to control effort have either exacerbated the problem or reverted the effort someplace else where it does as much damage as it did in the original. Or it puts fishermen into single species boxes which we all know doesn't control effort and foretells the death of the fishing industry, particularly on this coast.

We are making no serious effort as far as I'm aware to develop new, effective, fair concepts for controlling effort. We simply try to apply the same old ones over and over again which don't work, which are self defeating.

And the third fundamental thing I think we're missing is to develop selective fishing gear. Fundamentally, the fishing gear that we're using in the groundfish fishery is 100 years old. It's been improved, it's been refined, there's been some fine tuning, but it's still a net being dragged across the bottom. And it's still essentially a non-selective piece of gear.

The testimony that fisherman have told you that they're dumping thousands of pounds of fish which they don't want to catch to me says the process is non-selective. Now, it's conceivable, it's possible, in this age that our technological capability we can develop gear which is truly selective. That is to say gear which can take the fish which we can harvest and actually repel species that we're not going to catch. How would we do this?

On the basis of fish behavior. Every living thing in this world has behavioral characteristics. All of us. And we can develop technology which will provide stimuli to fish which will either attract or repel them on a species by species basis. That would be truly selective gear. In my experience with the fisheries management council I think we must have spent 60 percent of our time dealing with problems that were inherent in groundfish. 60 percent.

Not dealing with the conservation of fish, but dealing with the potential conflicts and problems, and until we develop new selective gear, I don't think we're going to be able to manage these fisheries. All of the other simply takes attention away from those fundamentals. That's my personal view.

Senator SNOWE. Thank you, Spencer, thank you for doing that and for offering your expertise here today. You've had years and years of experience in these matters, and so we're truly privileged that you were willing to be here today to share your thoughts with us. And we'll be following up with you. That's it.

All I can say it's an indication and a real tribute to your patience, but also how important this industry is to this state and to this country. So I want to thank each and every one of you for being here today, for your presence, for your thoughts, for staying here all day to listen to one another contribute ideas on this most important issue, and as I said earlier this is just the beginning of the process, not the end, and throughout the months ahead I will be seeking more input from all of you and other people involved in the industry and when the reauthorization process kicks in next year, I certainly will be working with you on specific changes and

the provisions that we will be looking at. So, again, I just want to thank all of you for your presence here today.

I will be keeping the record open for 10 days. You can send a letter to my office with your written testimony, fax it or whatever. We will be glad to include it in the record, and I want to ask unanimous consent before we adjourn that the hearing record remain open for 10 legislative days so that the subcommittee may accept additional statements and questions from Senators as well as any other information that the subcommittee may want to include in the hearing record. Without objection, so ordered. The hearing is adjourned.

[The hearing was adjourned at 2:55 p.m.]

APPENDIX

September 22, 1999

Senator Olympia Snowe
Subcommittee on Oceans and Fisheries
428 Hart Senate Building
Washington DC 20510

Dear Senator Snowe:

I realize that a fisheries data collection program based upon fishermen using electronic logbooks may be a novel concept to some people and so may require additional explanation. To that end, I would like to extend an offer to be available in person to answer any questions that you or other committee members might have on the use of electronic logbooks as part of an overall fisheries data collection program. For example, I understand that there is going to be a meeting on September 25th to discuss the Reauthorization of the Magnuson-Stevens Act. Since it is probably too short of notice for that specific meeting, I was hoping that you would be so kind as to include this letter into the official record for that meeting.

BACKGROUND

Thistle Marine was founded on the premise that important fisheries resource information—readily available to fishermen as they tend their traps—is not being collected or preserved. This is a wasted opportunity both for fishermen and fisheries management agencies. Collecting harvest demographics can help fishermen become more efficient and can help fisheries management personnel make more informed policy decisions.

We have developed an inexpensive device that allows fishermen to easily log harvest data. In addition, we accumulate harvest data and turn it into easy-to-read web-based or printed reports that reflect harvest effort and include important environmental parameters that may affect harvest.

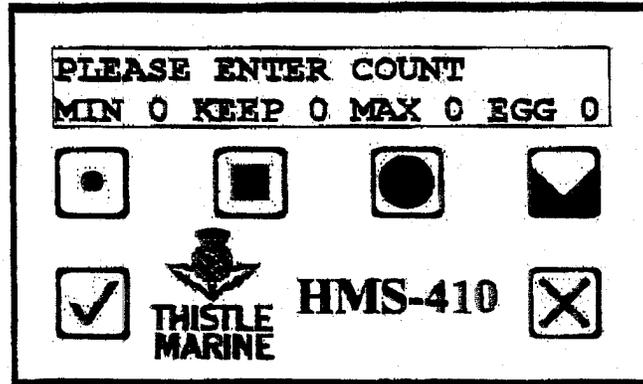
PRODUCTS AND SERVICES—FISHERMEN

Thistle Marine offers two products, a device and a reporting service, and we serve two separate markets. To fishermen we offer the HMS-410 and HMS-420 Electronic Logbooks which they can use to record the quantity and types of target species hauled on a per trap basis. For a separate fee, Thistle Marine analyzes the recorded data and returns a report detailing a fisherman's harvest results. Reports for individual fishermen are exclusive and confidential. We also can provide reports that include *aggregated* 2catch results. This reporting service is aimed at fisheries management entities. The aggregated reports do not show the results of individual efforts, but do provide valuable information for making species management decisions.

The electronic logbook—connected to the boat's Loran or GPS device—records the demographics of the fish caught in each trap along with the boat's position. In data capture mode the electronic logbook will prompt the fisherman to enter the count from each trap hauled. When the fisherman hauls a trap, the fisherman will press one or more buttons indicating the quantity and type of target species found in the trap. If the target species was lobsters, for example, the four buttons designate regulated lobster sizes:

- Sub-legal, those below the minimum size.
- Counters or keepers, which are legal lobsters.
- Over-sized, those lobsters greater than the maximum size.
- V-notch females (or eggers), which are also illegal to harvest.

The following diagram shows the button layout on the front of the HMS-410 unit. The HMS-420 has a similar front panel but has the addition of a 10-digit keypad that permits easier entry of larger quantities of fish.



The fisherman will press a button once for each lobster in the trap. If there are two lobsters that are too small, one legal and one v-notch, the fisherman will press the button representing below minimum size lobsters twice, the button for legal lobsters once and the button for eggers once. The fisherman then must press the OK button. If no lobsters were found in the trap then the fisherman should simply press the OK button while all of the count fields on the LCD display are zero. The electronic Logbook records the count entered by the fisherman and the boat's position. This process would continue until the fisherman are done hauling traps for the day.

After a day's fishing, the fisherman uses the electronic logbook to connect to Thistle Marine's computer system using a standard modem connection. Software at Thistle Marine analyzes the data. Reports based upon the data are then sent the fisherman via US mail or our Internet site.

If a fisherman reviews his reports via the Internet, there will also be a mode to view the data as a continuous display. The data is displayed over a background image of the local shoreline and is displayed as color-coded isometric bars. The fishermen can select demographic categories, a data range and either weekly or monthly "snap shots" of the data. These images will be updated every few seconds. These images will show a progression of weekly or monthly results from the hauled traps.

PRODUCTS AND SERVICES—MANAGEMENT AGENCIES

There is tremendous inefficiency in the way that the industry gathers statistics on the fisheries. Fishermen are already handling the fish, why should the research biologist also handle them?

Valuable data is available by aggregating all the data collected from the electronic logbook customer base. The data is "washed" to make it anonymous before it is sent to the fishery management agencies that have purchased these reports.

There currently is no other product or service on the market that is designed to collect statistics for both the fisherman and the fisheries manager. Attempts have been made but have fallen short because they were targeted more for the researcher and not the fishermen. Since fishermen outnumber researchers by at least a hundred to one, it is much more logical to target a product towards the fisherman. In the survey we did, the pent-up demand in the fishing community is obvious.

If fishermen would record the size of every fish (i.e. sub-legal, legal, and oversized) and egg-bearing status (i.e. v-notch female) from each trap and if that information could be aggregated along with all of the other fishermen then the federal and state agencies would be well on their way to having the statistics they need, on an on-going basis, to monitor the species population.

The critical question is how to motivate fishermen to gather that level of statistics. The answer lies in the fish's migration behavior. For example, lobsters migrate to varying degrees depending on size, sex, season, etc., from just a few miles to many hundreds of miles. Lobsters migrate towards the shore during the spring and summer to shed their shells and to mate. They then move back out into deeper waters when the weather starts to cool off in late fall and winter. While this sounds predictable, many factors affect the exact timing and pattern of this migration. Lobstermen currently have only their experience to use in predicting where the lobsters are going to be and to set their traps accordingly. If a lobsterman has 800

traps in the water, and is hauling 2400 to 3200 traps a week, the best they can come away with at the end of the day is a general sense of where the fishing was good, where it was bad, and the total size of the catch.

With a graphical representation of the results of the catch over the past several months, the lobstermen could see overall trends. If this chart was cross-referenced with depth charts, bottom topography, and sea surface temperature charts, the fishermen could see which areas are productive and which areas are likely to be productive in the near future. The lobstermen could then make decisions on trap placements that were based on substantive information and not just intuition. The yields should increase as a result. Lobstermen have demonstrated their willingness to adopt new technology, as it has become available. This is just one more new tool to help them become more efficient.

ACCSP COMPLIANCE

The Atlantic Coastal Cooperative Statistics Program (ACCSP) has proposed that all data be collected on a "per trip" basis from all entities involved in the harvesting and processing of fisheries products. Thistle Marine has designed its products and services to be ACCSP compliant. We are committed to ensuring easy data interchange with management agencies that are collecting data for the ACCSP database.

CURRENT STATUS

In August 1999, the Maine's Department of Marine Resources and Thistle Marine jointly won a grant from Maine Science and Technology Foundation. These funds will be used to purchase 124 units that will be distributed to fishermen along the entire coast of Maine and will become the backbone to the state's data collection program. We plan to ship these units to the DMR by year's end.

FUTURE PRODUCTS

There are roughly 36 species of fish caught in fixed gear in US waters alone. The two main categories of fish are lobsters and crabs. While we will initially focus on the American lobster industry, Thistle Marine plans to expand into other fisheries. These products could be targeted for mobile-gear fisheries, "for hire" boats, and fisheries enforcement.

If I can be of service to you or to the Subcommittee on Oceans and Fisheries, please don't hesitate to contact me at 207-667-0674. Please feel free to also contact Robin Alden at 207-367-2473.

As you know Robin Alden is the former Commissioner of Maine's Department of Marine Resources. Robin has agreed to serve on the Board of Directors to Thistle Marine.

Regards,

Richard C. Arnold
President

September 23, 1999

Honorable Olympia J. Snowe
Chairwoman
Subcommittee on Oceans and Fisheries
United States Senate Committee on Commerce, Science, and Transportation
SH-428 Hart Senate Office Building
Washington, D.C. 20510

The Honorable John F. Kerry
Ranking Minority Member
Subcommittee on Oceans and Fisheries
United States Senate Committee on Commerce, Science, and Transportation
SH-428 Hart Senate Office Building
Washington, D.C. 20510

Re: Atlantic Bluefin Tuna Spotter Pilots

Dear Senator Snowe and Senator Kerry:

We represent the Atlantic Fish Spotters Association ("AFSA"), the organization that, in turn, represents the handful of spotter pilots remaining in the Atlantic bluefin tuna ("ABT") fishery.

We are writing to submit the attached White Paper for inclusion in the record of the Magnuson-Stevens Fishery Conservation and Management Act re-authorization.

tion hearings that the Subcommittee on Oceans and Fisheries is presently conducting. We would respectfully ask that our submission be provided to other subcommittee members.

In brief, we understand that certain opponents of ABT spotter planes may be seeking broad-gauge legislative intercession regarding the use of aircraft in the ABT fishery. Our White Paper explains why such a legislative effort will have unintended adverse consequences for **all** ABT fishery participants. As Congress and respected New England conservation organizations have recognized, spotter planes significantly enhance the monitoring of the ABT stock and assist in the ground truthing of federal estimates of ABT abundance and safe catch levels. In fact, given the progress of the ABT fishery this season, spotter planes may prove especially valuable in this role in 1999-2000. Of course, spotter planes cannot provide this assistance if they cannot fly.

In addition, AFSA's White Paper makes clear that AFSA and its members have long (but without success) sought to initiate a process in which concerns about spotter plane usage in the ABT fishery could be addressed, while permitting spotter planes to continue their historical (since the 1960's) participation in the fishery. A reluctant litigant, AFSA unsuccessfully again sought NMFS's initiation of a process toward such a constructive resolution **after** AFSA obtained a court victory in June of 1998 voiding "*in toto*" NMFS's ban of spotter planes from the ABT General Category.

AFSA submits that NMFS should be able and instructed to develop and implement a constructive and inclusive solution to this issue that promotes the collection of the best scientific information available and preserves opportunities for historical fishery participants.

We would be glad to provide any additional information or answer any questions the subcommittee may have on this issue.

RESPECTFULLY SUBMITTED,
BRAND & FRULLA, P.C.

David E. Frulla

Enclosure

WHITE PAPER:

GENERALIZED LEGISLATIVE INTERCESSION RELATING TO ATLANTIC BLUEFIN TUNA SPOTTER PLANES IS NOT WARRANTED AND COULD HAVE ADVERSE UNINTENDED CONSEQUENCES FOR ALL FISHERY PARTICIPANTS

Executive summary. The Atlantic Fish Spotters Association ("AFSA") represents the handful of spotter pilots remaining in the Atlantic bluefin tuna ("ABT") fishery. Spotter planes and their pilots are historic participants in the ABT fishery. Indeed, planes have participated in the ABT fishery since the 1960's. During their history in the ABT fishery, spotter pilots have provided—and Congress has acknowledged that they have provided—valuable data and information about ABT and the ABT fishery. Spotter plane usage also provides direct conservation benefits, such as by directing harpoon fishermen to harvestable sized ABT (thus reducing ABT discards and discard mortality) and by assisting in the disentanglement of marine mammals from others' fishing gear.

AFSA respectfully submits this White Paper to address and oppose calls for legislative intercession regarding spotter planes' continued participation in the ABT fishery. As we will explain, even after AFSA obtained judicial invalidation of a 1997 regulation banning spotter planes from the ABT General Category, as well as strong judicial criticism of the conflicting and inadequate reasons the National Marine Fisheries Services ("NMFS") put forward for that ban AFSA approached officials at the highest levels of NMFS and asked to assist in the development of a constructive solution that would address certain concerns that have been raised about ABT spotter planes' use, while still permitting planes to exist in the fishery. AFSA's efforts could have also put a stop to the potential for future litigation on this issue.

Even after AFSA's responsible entreaties, however, NMFS began yet another rulemaking process seeking an even broader ban on ABT spotter planes. That NMFS rulemaking process was marred by threats of violence against and efforts to intimidate spotter pilots and their proponents, including respected New England conservation organizations and their representatives. Importantly, the New England Aquarium and the Massachusetts Audubon Society have long supported spotter planes' need to exist in the ABT fishery and have long acknowledged the pilots' contribu-

tions to ABT data collection and conservation. In addition, the Center for Coastal Studies has recognized spotter pilots' efforts to protect marine mammals.

In this White Paper, AFSA will identify certain unintended consequences of broad-gauge legislative intercession into this difficult issue that could have an adverse economic impact on all ABT fishermen, recreational or commercial, Maine resident or North Carolinian, ABT rod and reel fishermen or harpooner, plane user or plane opponent. Unintended adverse consequences will definitely, moreover, eventuate for ABT data collection and assessment efforts. In addition, AFSA would like to set the record straight about its responsible efforts to find a middle ground regarding the use of spotter planes in the ABT fishery. For these reasons, Congress should ask for and be able to rely on NMFS to develop a responsible administrative resolution regarding ABT spotter planes that accommodates the various interests. We will turn first to the unintended consequences of legislative intercession on the spotter plane issue.

Spotter planes significantly enhance scientific monitoring of the ABT stock. Spotter planes' contributions to the ABT fishery must be considered in the historical context—a context that recent entrants into the fishery may not fully, if at all, appreciate, until it's too late.

Spotter planes have historically—and essentially on a volunteer basis—conducted aerial surveys that have “ground truthed” NMFS's estimates of ABT abundance. Indeed, earlier in the 1990's, aerial survey information collected by spotter pilots and independent researchers, including those from the New England Aquarium, was a principal bulwark that protected the U.S. ABT fishery from draconian and unjustified reductions in the U.S. allocable share of the ABT total allowable catch advocated in the international arena by the U.S. A similar scenario may be presently getting ready to repeat itself.

More specifically, NMFS employs a very narrow segment of information to assess the Western ABT stock and estimate its relative change in abundance from year to year. That is: NMFS relies almost entirely on what is known as a catch per unit of effort (“CPUE”) data. In simplest description, if ABT rod and reel and handline fishermen catch their share of the ABT total allowable catch allocation faster from one year to the next, NMFS concludes the stock is increasing. If catch rates slow, then NMFS concludes the ABT stock is declining.

The National Academy of Sciences has correctly observed, however, that many factors other than ABT abundance may influence the annual rate of ABT catch by these gear types. First of all, these fish are highly migratory. Moreover, oceanic events, water temperature changes, weather pattern changes (such as may be related to El Nino and La Nina), the availability of feed, and many things we have yet to understand about ABT can account for when and where ABT are—and when and where they bite. Put differently, ABT can be prevalent and indeed rebuilding, but just not biting where and when U.S. fishermen are fishing. Any recreational fishermen can understand and empathize with this phenomenon.

NMFS' use of catch-based measures of abundance would, however, automatically conclude that, if the ABT aren't biting, they don't exist. Such an oversimplified assumption has resulted in significant NMFS underestimates of the ABT stock (and hence the appropriate level of the U.S. harvest). In 1992, when NMFS stock assessments were showing the Western ABT stock in a perilous decline, aerial survey information gathered by spotter pilots (voluntarily and at considerable personal expense) in conjunction with independent scientists demonstrated that NMFS's stock assessment was not accurately depicting the status of the stock; the pilots systematically photographed so many schooling ABT that NMFS's projections of a decline were refuted. In the end, the difficulties with the NMFS assessment resulted in Congress requesting the National Academy of Sciences to review NMFS's ABT assessment processes and also resulted in a specific amendment to the Atlantic Tunas Convention Act (“ATCA”) to encourage the use of aerial surveying by spotter planes. ATCA is the main law pursuant to which the U.S. ABT fishery has historically been regulated.

The historical record regarding this issue is specifically set out in U.S. law and legislative history materials. In response to the congressional request for information, in 1994, the National Research Council (“NRC”) reported on the status of Western Atlantic ABT stocks and concluded that NMFS' fishery-dependent based estimates of ABT abundance did not accurately estimate the status of the ABT stock. In fact, the cognizant Senate committee explained that the NRC report concluded that, “contrary to the findings of the National Oceanic and Atmospheric Administration (NOAA) scientists, the bluefin tuna stock has remained stable in the Western Atlantic since 1988.” See U.S. Senate Committee on Science, Research, and Transportation, Report on the Fisheries Act of 1995, S. Rep. No. 104-91 (May 26, 1995), at 17.

The inaccuracy of the NOAA/NMFS estimates caused difficulties at the International Commission for the Conservation of Atlantic Funds (“ICCAT”), the international body that, by treaty, sets most nations’ allocable shares of the ABT harvest and essentially the total overall international harvest. Finding that “[t]his [NRC] report has raised serious questions about NOAA quality control and leadership with respect to the scientific assessment and monitoring of . . . particularly Atlantic bluefin tuna,” *Id.*, Congress amended ATCA to **require** NOAA and NMFS to develop and implement a detailed research and monitoring program including aerial surveying. See 16 U.S.C. § 971i(b)(2)(C) (requiring NMFS to conduct “population censuses carried out through aerial surveys of fishing grounds and known migration areas . . .”).

It is thus on record that Congress has specifically recognized that aerial surveys by ABT spotter pilots represent an important component of the strategy to ameliorate concerns about the ABT stock and threats to U.S. ABT harvest levels.

The valuable assistance that spotter planes have provided to ground truth NMFS CPUEbased ABT abundance estimates explains, in part, why respected conservation organizations, such as the Massachusetts Audubon Society and the New England Aquarium, have strongly and consistently opposed any spotter plane ban. They, too, do not want to be totally dependent on NMFS’s fishery dependent abundance indices, which were so demonstrably in error in 1992, to assess ABT stocks. These organizations also have concluded that spotter planes help reduce the catch (and thus the discarding and discard mortality) of undersized ABT. Spotter planes assist harpoon fishermen to locate and target harvestable sized fish. For its part, ICCA T has specifically recommended that participating nations, including the U.S., reduce AB T discards and discard mortality.

Spotter planes may prove especially valuable in 1999-2000. Another situation like 1992 may be developing this year. In short, after years in which catch rate trends have increased (and ABT seasons have correspondingly trended shorter), the ABT General Category catch rate for the summer of 1999 is as slow as it has been since 1989. For instance, last year, the June-August portion of the ABT General Category total allowable catch of 390 metric tons was caught by early August; this year, only approximately 140 metric tons of ABT were caught by the General Category by the end of the first week in August. The 1999 ABT catch is still lagging. Thus, using NMFS’s exclusively catch rate-based abundance estimation technique for ABT, it might be argued that the ABT have suffered a significant decline in abundance between 1998 and 1999. In fact, ever since the NRC report criticizing NMFS, certain of NMFS’s scientists have been predicting this sort of decline.

Based on such a one-year decline in catch rates, NMFS could—as it did in 1992—recommend to COAT that the U.S. ABT total allowable catch should be substantially reduced in 2000 and beyond. In such case, NMFS would take this position only one year after COAT recommended maintaining the U.S. ABT harvest allocation for the foreseeable future.

AFSA believes that ABT stocks are continuing to increase, contrary to this year’s catch rate glitch. Its member pilots are seeing abundant numbers of ABT—and increasing numbers of juvenile ABT—from their unique vantage point. Spotter planes may once again be needed to ground truth NMFS estimates that could jeopardize the continuation of the ABT fishery as we know it. But, without a ready supply of spotter planes, aerial surveying is not practicable. Understandably, most spotter pilots could and would not volunteer to collect data for a fishery if they are prohibited from participating in it.

Spotter pilots seek to retain their right to exist in the ABT fishery but have long been willing to work—and have committed to work—with NMFS and the ABT fishery to address certain of the concerns that have been raised about their use. AFSA has been forced to resort to litigation to ensure its members’ continued participation in the ABT fishery. The United States District Court for the District of Massachusetts has, without equivocation, found that NMFS lacked the necessary rational basis to ban spotter planes from the ABT fishery in 1997. In fact, so convinced was the court, that it took the rare step of actually voiding the plane ban “*in toto*.” See *Atlantic Fish Spotters Association v. Daley*, 8 F. Supp.2d 113 (D. Mass.1998). Litigation does not, however, represent AFSA’s preferred forum for resolution of concerns relating to spotter plane usage. Instead, it was—and remains—a last resort.

For instance, in 1996, spotter pilots entered into a Gentlemen’s Agreement in which they pledged to limit their assistance of ABT fishermen in the General Category to certain methods, thereby seeking voluntarily to address certain concerns that had been raised about the use of planes in the General Category. Compliance among pilots and ABT fishermen with the Gentlemen’s Agreement was literally 99% effective, but NMFS moved to ban spotter planes from the General Category anyway

in 1997. In 1997, when NMFS banned spotter planes for the second half of the season, the planes did not fly, but abided by the agency's decision pending the outcome of their legal challenge.

Then, in the Fall of 1998, **after** the court concluded that NMFS has no adequate basis to ban spotter planes, AFSA representatives—on their **own** initiative—met with the NMFS Assistant Administrator for Fisheries and his staff to seek to initiate efforts that would address concerns that have been raised about spotter plane usage in the ABT fishery, but that would recognize ABT spotter planes' historic participation in the fishery and assure their continued right to exist. NMFS responded to pilots' overture by proposing to ban planes again in June of 1999—in the face of a court order entered less than a year before.

AFSA remains willing to work on creative and durable solutions to issues that have been raised about spotter planes, provided spotter planes retain the right to exist in the ABT fishery. For instance, it may be possible to assign pilots to specific permit holders or to create a separate category for harpoon fishermen who would like to use spotter planes. AFSA has proposed to Commerce Department officials the use of a negotiated rulemaking format or some other form of mediation to develop a resolution for this issue. AFSA submits that such a responsible and reasonable process and solution should be preferred over generalized legislative intercession that may result in unintended adverse consequences for all ABT fisherman in the U.S., as well as ABT science in general. Congress should ask for and expect NMFS to develop and implement such a constructive and inclusive solution that promotes the collection of the best scientific information and preserves fishing opportunities for historical participants—in fact, that is NMFS's very mandate.

Atlantic Fish Spotters Association
September 1999

October 7, 1999

Senator Olympia J. Snowe
United States Senate
Washington, D.C. 20510

Dear Senator Snowe:

Thank you for holding a hearing on the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) on September 25, 1999 at the City Hall in Portland, Maine. These laws do impact our social and economic fabric here in the New England communities and it is with great pride and concern that the fishermen came forward to share their knowledge, experience and fears.

My name is Carla Morin. I am the Administrative Assistant to Craig Pendleton at Northwest Atlantic Marine Alliance (NAMA). I appreciate your time and genuine concern in trying to find a balance in fishery management and I would like to offer my thoughts regarding our future decisions in fishery management.

1. EXPERIMENTAL FISHERY - INNOVATION & EXPERIMENTATION

Gear modifications that allow selective fishing practices, the study of species behavior, and spawning cycles are some of the research projects that fishermen view as crucial to creating sustainable fisheries. The fishermen who provide food to the nations of the world, hold a wealth of knowledge and experience of the fishing grounds and species. No one wants or needs sustainable fisheries more than they do. They want to and should be part of the research and decision making process that effects their lives so greatly. Some of the challenges we have heard from independent researchers is that they have difficulty being granted permits to conduct their research projects. If the goal is to develop gear technology that is highly selective, we must change this policy so that this critical work can be conducted. Current NMFS policy does not allow research projects to take place within closed areas.

Another comment we hear at NAMA is that fishermen must "give up" or use a "Day At Sea" to participate in research. By being involved, not only do they have to give up highly treasured "Days At Sea", they also face economic loss by not fishing. When individuals have limited days to fish and limited access to species, it's a high price to pay. This is unreasonable and must be changed.

What I propose as a solution is this: When fishermen work with science on research projects it is NOT considered a "Day At Sea". Any species caught during the project should be brought to market and monies raised will go into an appropriated account for future funding of research projects, observer programs or continuation of the project. This creates a revenue stream that can contribute to the lack of funding that seems to be the cause of the inability to gather current data.

2. DAYS AT SEA

Current management policy in New England is to use “Days At Sea”, (DAS) as a effort control mechanism. The allocation of DAS using the “snapshot in history” theory created issues of inequality that at this juncture have caused concerns of fairness and access to the resource. The imbalance between “Fleet Days” and “Individual Days” is seen as a divide and conquer tactic.

3. PERMITS PER SPECIES

Allocation, or lack of, has been the prime concern of many fishermen in New England. Using the “snapshot in history” in a particular fishery has been the basis of these allocation issues. The result in using this method of allocation has dissolved the essence of versatility that has been historically prevalent. This has been compounded in the current version of the Magnuson-Stevens Act by single species management. It is believed that this is the incorrect approach and that a aggregate biomass or multi species and ecosystem approach will cause less disruption and bring the balance back into the management plan.

4. LOSING PERMITS FOR INACTIVITY

The economic impact of not having the flexibility to switch between fisheries due to the loss of permits because a vessel didn't qualify in a window of time or a moratorium has caused considerable damage. If you know that a season may not be profitable and choose to abstain, you now stand a chance of losing your future rights to fish a particular species. You can use lust shrimp season as an example. Many fishermen made a moral decision NOT to fish on the poor quality that existed during last season. If you now take a historical snapshot of their landings, they can now be eliminated from future seasons.

Is it possible to look at the permit in the same light that hunting licences are obtained and renewed each year? If you don't shoot a deer, you can still renew your license next year. Or, allow permit holders the choice to declare themselves prior to the start of the season whether or not they were going to fish. This would identify the actual number of participants and allow accurate reallocation of the “days” to the permit holders that choose to stay. Making the choice to abstain for the season for conservation and economic reasons should be rewarded and in no way should they risk never being allowed to participate in that fishery.

It is my hope that you find my comments valuable and consistent with the oral testimony and observation regarding changes that can bring a balance to renewing the Magnuson-Stevens Act. If you have any question please feel free to call our office at 207-284-5374.

Sincerely,

Carla A. Morin
Administrative Assistant

