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GLOBAL OVERFISHING AND INTERNATIONAL FISHERIES MANAGEMENT

HEARING

BEFORE THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

ONE HUNDRED EIGHTH CONGRESS

FIRST SESSION

JUNE 12, 2003

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SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ONE HUNDRED EIGHTH CONGRESS

FIRST SESSION

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GLOBAL OVERFISHING AND INTERNATIONAL FISHERIES MANAGEMENT

THURSDAY, JUNE 12, 2003

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The Committee met, pursuant to notice, at 9:30 a.m. in room SR–253, Russell Senate Office Building, Hon. John McCain, Chairman of the Committee, presiding.

OPENING STATEMENT OF HON. JOHN MCCAIN, U.S. SENATOR FROM ARIZONA

The CHAIRMAN. Good morning. The Committee meets today to hear testimony on the issue of global overfishing and explore the United States' role in international fisheries management and ways to improve it.

Over the past month, there has been significant media coverage on global overfishing, which has helped raise the Nation's overall awareness of the condition of global fisheries. The message is, our oceans are in danger and we need to take action to protect them.

The Food and Agriculture Organization of the United Nations estimates that approximately 47 percent of the world's major marine fish stocks or groups of stocks are fully exploited, therefore producing catches that have reached or are very close to their maximum sustainable limits. While another 18 percent are overexploited, another 10 percent of such stocks have been depleted or are recovering from depletion. An additional study conducted by Ransom Myers, who is here to testify, concludes that large pelagic fish worldwide are at 10 percent of their historic levels.

Meanwhile, the FAO predicts the world demand for fisheries products will only continue to grow over the next three decades. According to its economic modeling, the FAO believes global annual consumption of fish per person will increase from about 16 kilograms today to between 19 and 21 kilograms in 2030. Fish consumption per person is projected to increase by more than 84 percent in China, almost 60 percent in South Asia, and by almost 50 percent in Latin America and in the Caribbean. The United States needs to think about where we're going to get the fish necessary to meet this growing demand.

As we'll hear this morning, worldwide stocks of commercially valuable fish have generally decreased, but at the same time the size and catching capacity of the world's fishing fleet have continued to increase. These excessive efforts are fueled in large part by huge Government subsidies which a 1999 World Bank report estimated

account for 20 to 25 percent of the world's annual fishing revenues, or $15 to $20 billion.

Efforts to manage international fisheries are complicated by disparate support from fishing nations and outright noncompliance. On the high seas, illegal, unreported, unregulated fishing is common. There are few incentives to adhere to international agreements. The consensus view on international fisheries is that there are many problems. Unfortunately, what much of the media attention over the past month has missed is the progress the United States has made in better managing its own domestic fisheries. Through the Sustainable Fisheries Act of 1996, Congress mandated an end to overfishing and provided our regional fisheries management councils with many new management tools. Since then, many important domestic stocks have been rebuilt or are in the process of recovering.

The United States has an obligation to lead by example in international fisheries management and help other nations make the difficult decisions necessary to protect and preserve our common oceans. I look forward to hearing from our witnesses and learning their recommendations on how we can more effectively manage international fisheries. I freely acknowledge that this is a very large and very difficult and very challenging issue, and one that's going to require a lot of examination, and perhaps we should somehow see if we can't get some of the programs that have worked within the United States of America adopted internationally and, of course, enforcement is a major aspect and a major challenge.

[The prepared statement of Senator McCain follows:]

PREPARED STATEMENT OF HON. JOHN MCCAIN, U.S. SENATOR FROM ARIZONA

Good morning. The Committee meets today to consider the issue of global overfishing and to explore the United States' role in international fisheries management and ways to improve it.

Over the past month, there has been significant media coverage on global overfishing, which has helped to raise the Nation's overall awareness of the condition of global fisheries. The message is our oceans are in danger and we need to take immediate action to protect them.

The Food and Agriculture Organization (FAO) of the United Nations estimates that approximately 47 percent of the world's major marine fish stocks or groups of stocks are fully exploited and are therefore producing catches that have reached, or are very close to, their maximum sustainable limits, while another 18 percent are over-exploited. Another 10 percent of such stocks have been depleted or are recovering from depletion. An additional study conducted by Ransom Myers (who is here to testify) concludes that large pelagic fish worldwide are at 10 percent of their historic levels.

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As we will hear this morning, worldwide stocks of commercially valuable fish have generally decreased, but at the same time, the size and catching capacity of the world's fishing fleet have continued to increase. These excessive efforts are fueled in large part by huge government subsidies, which a 1999 World Bank report estimated account for 20 to 25 percent of the world's annual fishing revenues, or $15 to $20 billion.

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ported, unregulated fishing is common; there are few incentives to adhere to international agreements.

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The U.S. has an obligation to lead by example in international fisheries management and help other nations make the difficult decisions necessary to protect and preserve our common oceans. I look forward to hearing from our witnesses and learning their recommendations on how we can more effectively manage international fisheries.

Senator Stevens.

STATEMENT OF HON. TED STEVENS,
U.S. SENATOR FROM ALASKA

Senator STEVENS. Mr. Chairman, I welcome your interest in this subject, and I do believe these recent reports are alarming.

We have at times been able to carry to the world community some of our concepts of protection of basic species of the oceans. I mention, for instance, the driftnet issue that we took to the U.N. and secured the approval of the world through the U.N. of a ban on the use of driftnets. They are a scourge of all creatures of the sea.

But beyond that, as you have mentioned, we have not been too successful in convincing the world to listen to our scientists and listen to those who have given us some of the answers as to how to protect species and how to even improve their status as far as the quantity of fish available from any particular species.

You will recall we've worked on the American Fisheries Act, which is dealing with pollack. Since the time we declared protection of our 200-mile limit, pollack has increased four to five times in the total size of its biomass, and the way it's being harvested it should continue to increase, increase until it really gets to the point where its total food chain will not support any further expansion.

Mankind is not destroying pollack as it increases its harvest of pollack, but clearly, in the areas particularly of the chase for these enormous fish I think these reports are just startling in terms of the numbers that are surviving, and I do believe that we should find ways to take to the world community our urgent plea that we act now to try and not only protect those species, but restore their vitality and help them recover.

We have the means to do that. It's not very expensive. That's the reason we've been pursuing the concept of rationalization in our North Pacific, to try and prevent the overgrowth of harvesting capacity, really the growth of it to the point where it threatens survival of the species, so I think you'll find that all of us here on this committee are really very interested in helping you pursue this course, and again, I thank you for holding the hearing.

The CHAIRMAN. Thank you, Senator Stevens. I want to welcome the witnesses, Admiral Collins, Commandant of the United States Coast Guard, Dr. Rebecca Lent, Deputy Assistant Administrator for Regulatory Programs at the National Oceanic and Atmospheric

Association, and Hon. John F. Turner, Assistant Secretary, Bureau of Oceans and International Environmental and Scientific Affairs at the Department of State.

We'll begin with you, Admiral Collins. Welcome.

STATEMENT OF ADMIRAL THOMAS H. COLLINS, COMMANDANT, U.S. COAST GUARD

Admiral COLLINS. Good morning, Mr. Chairman, Senator Stevens. It's a pleasure to join you this morning to discuss this incredibly important topic, and as the global demand for fish increases, so does our responsibility to ensure their sustainability of this very finite fisheries resource, and today, as you have alluded, we see many significant threats to their sustainability, including underreporting catch, using illegal harvesting methods, and unlawful encroachment in our exclusive economic zones.

The Coast Guard's role is to enforce the laws and regulations that prohibit these practices in partnership with our other Federal agencies. Our highest priority objective is to prevent illegal encroachment of U.S. EEZs and to ensure compliance with U.S. and international laws and regulations regarding living marine resources. We take this role very seriously, and approximately 12 percent of our budget for 2004 is planned for this mission area.

From our perspective, there are four key ingredients to improving our international fisheries enforcement posture: first, the existence of a strong regulatory scheme that is enforceable; second, adequate enforcement presence in key living marine resource areas for compliance and deterrence purposes; third, the application and leverage of effective technology, especially in the areas of monitoring and surveillance; and fourth, productive, outcome-focused partnerships with other nations. These four aren't mutually exclusive. There is linkage between all four. Let me very quickly cover the four.

Presence. It's clear from our experience that the more our vessels are out there, the less fishing vessels violate the law. The challenge is that we have an incredibly vast area to oversee, 3.36 million square miles of EEZ, and the U.N. Fish Stocks Agreement adds to enforcement requirements by extending that enforcement requirement to the high seas. Clearly, there is a current and projected mismatch between our current force structure, our resource base, and enforcement requirements, and of course our presence requirements can be mitigated by the application of technology.

Second, strong regulatory scheme. We actively and aggressively support the Department of State and NOAA in developing and promoting international enforcement regimes in partnership with the National Marine Fisheries Service and the Department of Justice in prosecuting violations, and there has been much, much progress in this area. The United States was one of the first nations to ratify the U.N. Fish Stocks Agreement, whose purpose is to ensure long-term conservation and sustainable use of the fish stocks. It is really one of those, I think watershed pieces of enforcement regime.

The remaining challenge is to increase nation-state participation in the Fish Stocks Agreement, and until we do so, the Fish Stocks Agreement's utility will be limited. Twenty nations harvest over 75 percent of the world's total fish catch. Seventy-five percent of the

world's total fish catch is harvested by 20 nations. Only four of them have signed the Fish Stocks Agreement.

The CHAIRMAN. Which are?

Admiral COLLINS. Norway, Russia, United States, and the fourth one escapes me for the moment, Mr. Chairman.

The CHAIRMAN. Japan?

Admiral COLLINS. Maybe Japan—Canada is the likely fourth. We can confirm that for the record, sir.

Technology, the third area. We are working aggressively in partnership with NOAA to implement a national fisheries monitoring system, and we expect to make continued progress in that over the next several years. We think VMS, the vessel monitoring system that provides positive identification of vessels transmitting data and indicates where and what the vessel is doing is absolutely essential to any enforcement regime. It's indispensable technology, and very, very importantly, our deep water modernization project, integrated deep water systems, is very, very much key to bringing new technology, new capability to our off-shore enforcement requirement.

The fourth and critically important is partnerships with other nations. We are directly engaged as an organization, the United States Coast Guard, with the counterpart enforcement agencies in Canada, Mexico, Russia, Japan, South Korea, People's Republic of China, and many others, and our efforts include enforcement MOUs with them, fisheries enforcement workshops with them, ship rider agreements with them, joint operations and boarding officer training with them, and we currently have a fisheries enforcement agreement with Canada and the People's Republic of China and Taiwan, and we're in the process of concluding one with Russia as well, and working on one with Mexico.

We collaborated with Russia on a joint operations manual addressing joint law enforcement operations in the Bering Sea in a very, very successful way, and we're also a member of many formal regional fisheries management organizations. These international mechanisms are absolutely indispensable to moving ahead positively in the enforcement area.

So, summary, four items we think are the magic ingredients to success: presence, strong regulatory regime, technology, and partnerships are what is needed, are the key ingredients to bake this cake, so to speak, in effective international enforcement. Thank you very much, Mr. Chairman. I'll be glad to answer any questions at the appropriate time.

[The prepared statement of Admiral Collins follows:]

PREPARED STATEMENT OF ADMIRAL THOMAS H. COLLINS, COMMANDANT, U.S. COAST GUARD

Good morning Mr. Chairman and distinguished members of the Committee. It is a pleasure to appear before you today to discuss the Coast Guard's role in international fisheries management.

As the demand for fish products increase globally, so too does the responsibility of all nations to ensure the sustainability of our fishery resources. The high seas and the resources they hold are the village commons of the 21st Century. Today we see many significant threats to their sustainability. These threats take the form of illegal, unreported and unregulated fishing, under-reporting catch, using illegal harvesting methods such as high seas drift nets, and unlawful encroachment into the U.S. Exclusive Economic Zone (EEZ). The Coast Guard's role is to enforce the laws

and regulations that prohibit these practices. This is a mission we take seriously and into which we funnel significant resource capital. This year, 12 percent of the Coast Guard's Operating Expenses budget is dedicated to supporting the fisheries mission.

Under the auspices of the Magnuson-Stevens Fisheries Conservation and Management Act, the Coast Guard is the only Federal agency capable of projecting a law enforcement presence throughout the EEZ and in key areas of the high seas. The Coast Guard invests significant resources to patrol these waters and works closely with domestic and international enforcement agencies to thwart illegal fishing practices at sea.

The Coast Guard assists the Department of State in developing international enforcement regimes through various Regional Fishery Management Organizations such as the International Convention for Conservation of Atlantic Tuna, the North Pacific Anadromous Fish Commission, the Northwest Atlantic Fisheries Organization, and the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific to name a few. The Coast Guard maintains a liaison officer at the State Department's Office of Marine Conservation to advise U.S. delegations to these organizations on the enforceability of proposed management regimes. We also work closely with the National Oceanic and Atmospheric Administration's (NOAA) Fisheries Office for Enforcement and the Department of Justice in prosecuting foreign fishers who illegally encroach upon the U.S. EEZ.

"Fish do not recognize international boundaries" is an oft-quoted phrase in the fisheries management and enforcement business, and the Coast Guard is directly engaged with enforcement agencies in Canada, Mexico, the Russian Federation, Japan, South Korea, the People's Republic of China and many other nations to promote sustainability through compliance with regulations and management regimes. Our efforts include enforcement Memoranda of Understanding, fisheries enforcement workshops, ship rider agreements, joint operations, and boarding officer training. In an action plan on the Marine Environment and Tanker Safety prepared last week at the G–8 Summit in Evian, France, G–8 leaders, led by President Bush, pledged to work towards sustainable fisheries and marine conservation.

I would like to share with you a success story in international cooperation and effective enforcement. In 1991, the United Nations declared an international moratorium on the use of large-scale (greater than 2.5 kilometers in length) pelagic high seas driftnets. Since that time, the U.S. Coast Guard, NOAA Fisheries, the Canadian Department of Fisheries and Oceans, the Russian Federal Border Service, the People's Republic of China Bureau of Fisheries, and the Fisheries Agency of Japan have worked together to all but eliminate high seas driftnet fishing in the North Pacific. Our closely coordinated efforts have resulted in Russian officers staffing a joint command center in Alaska, Chinese enforcement officers sailing on U.S. Coast Guard cutters, and NOAA Fisheries agents flying in Canadian Air Force surveillance planes. These countries are also members of the North Pacific Heads of Coast Guard organization that I personally participate in. The North Pacific Heads of Coast Guard, recognizing the importance of fisheries, recently implemented a Fisheries Working Group to meet regularly and discuss fisheries issues of regional interest.

The Coast Guard's fisheries law enforcement strategic plan OCEAN GUARDIAN, stipulates that our highest priority enforcement mission is to prevent encroachment of the U.S. EEZ and internal waters by foreign fishing vessels. The Plan also emphasizes ensuring compliance with international agreements for the management of living marine resources such as the United Nations Driftnet Moratorium.

Fisheries enforcement, particularly enforcement of international fisheries management schemes, is a mission largely conducted by Coast Guard Deepwater assets. The U.S. EEZ is the largest and most productive in the world. It occupies 3.36 million square miles and includes 95,000 miles of coastline. It contains an estimated 20 percent of the world's fishery resources. These vast patrol areas, coupled with the long distance from U.S. shores—for example the non-contiguous EEZ in the central Pacific—provide a significant challenge to the Coast Guard's assets. As fish stocks throughout the world dwindle and the fleets of distant water fishing nations are being pushed farther from home and into the high seas in search of catch, the bounty of our EEZ becomes a more attractive quarry. The improved capabilities the Coast Guard will garner and the technology we will have available to leverage as a result of the Integrated Deepwater System project will greatly enhance our ability to enforce international fisheries regulations in the U.S. EEZ and beyond.

The world is becoming more aware of the need to ensure the sustainability of our collective fish stocks. At the same time, the United States is becoming increasingly involved in the management of living marine resources on the high seas. Naturally,

this means the Coast Guard will become even more involved in the enforcement of agreements to which the U.S. is a party. In the past, international policies governing the conservation of high seas fisheries fell well short of their goals because they lacked any effective enforcement provisions. However, in 1995, a landmark agreement, the Straddling Fish Stocks and Highly Migratory Fish Stocks Agreement established the framework for all future international fishery regimes. This agreement calls for strict adherence with fishery conservation measures and, more importantly, contains non-flag state enforcement provisions that allow the Coast Guard to board foreign fishing vessels flagged by any nation party to any mutual international fishing agreement. The Agreement entered into force on December 11, 2001.

I believe emphasis in three areas is the key to improving our international fisheries enforcement posture. First, active participation in international fora such as the Regional Fishery Management Organizations I mentioned earlier. Second, working within those fora to develop a regulatory regime that not only sustains the resources, but is also *enforceable.* Finally, providing the resources necessary to carry out enforcement operations under that scheme. By resources, I am referring to people, vessels and also technology such as the Vessel Monitoring System, multi-lateral working groups like the North Pacific Heads of Coast Guard organization, and joint operations such as the high seas driftnet operations in the North Pacific.

Thank you for the opportunity to testify before you today. I will be happy to answer any questions you may have.

The CHAIRMAN. Thank you, Admiral. Dr. Lent, welcome.

STATEMENT OF REBECCA LENT, PH.D., DEPUTY ASSISTANT ADMINISTRATOR FOR REGULATORY PROGRAMS. NATIONAL MARINE FISHERIES SERVICE, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, UNITED STATES DEPARTMENT OF COMMERCE

Dr. LENT. Thank you, Mr. Chairman and Members of the Committee, for this opportunity to testify on international fishery conservation and management. The United States has one of the most comprehensive systems of fisheries management in the world. We have extensive science-based regulations on our commercial and recreational vessels more robust than most of those around the world. We have also led efforts for conservation, reducing overfishing and capacity in many international agreements and in many bilateral agreements, and are working on compliance as well. We hope other countries will recognize the benefits of sustainable fishing practices and compliance.

In May of this year, the article published in the scientific journal, *Nature,* raised the issue of worldwide depletion of predatory fish. This is consistent with the scientific view of the impacts of global fisheries on marine ecosystems. It's not a new finding that fishing has made fish stocks decline. However, there's a lot of uncertainty about what happened in these stocks before data were collected systematically.

Some of the conclusions reached in this article are global in scope, and we share those views in our scientific community about overfishing and resource declines, but the conclusions about specific fisheries in ocean areas, that's where the uncertainty kicks in. We are increasing our focus of scientific research on the impacts of marine fishing, working with our global partners in this research.

On the management front, the U.S. has made a lot of progress in international fisheries management. We're a leader in swordfish and billfish conservation through ICCAT, the Atlantic Tunas Commission. We're also a leader in bycatch technology development,

and transfer of that bycatch, particularly for sea turtles and sea birds and sharks.

We're going to continue our science-based work in recommending rebuilding programs for overfished stocks and in addressing bycatch internationally. I just want to highlight a few of our successes at ICCAT, the International Commission for the Conservation of Atlantic Tunas. We have rebuilding plans for Western Atlantic bluefin tuna, North Atlantic swordfish, and for blue and white marlin. We've already seen the payoffs of these rebuilding plans for swordfish. They're nearly at their goal.

We've also adopted a number of measures to improve compliance with ICCAT in addressing IUU fishing, as you pointed out. We've also addressed measures for bycatch of sharks, sea birds, and turtles.

We still have a ways to go at ICCAT in terms of data collection, making sure we stay on track with rebuilding plans, and get the overfished stocks under rebuilding plans as well.

With regard to CCAMLR, that's the Convention on the Conservation of Antarctic Marine Living Resources, the big focus here is Patagonian toothfish. The important measure that we have there is a tracking system which should help ensure that consuming nations, as we are, aren't buying IUU toothfish.

International Whaling Commission meetings start next week. We'll focus on our four main principles, which is, we support the moratorium on commercial whaling, we support aboriginal subsistence whaling, we oppose lethal research whaling, and we oppose the international trade in whale products.

NAFO, the Northwest Atlantic Fisheries Organization, our big concern there is access for U.S. vessels. There has been some success in rebuilding, particularly yellowtail flounder, but we're not sharing in those successes, and we're working on that.

We're taking a number of steps in our agencies to address international bycatch issues. We have agreements with foreign nations regarding long-line fishing, sea turtles, an international bycatch strategy, a number of workshops working with scientists as well as fishery managers worldwide.

COFI, the Committee on Fisheries at the Food and Agriculture Organization in Rome, the focus there has been addressing global problems of overcapacity. There are just too many boats out there. One country may take care of their overcapacity, but the vessels end up in somebody else's country, so we have to work on this internationally. There is an international plan of action for fishing capacity, and the United States is working on our national plan.

Convention on International Trade and Endangered Species, CITES, that is a useful adjunct to traditional fishery management. For marine species that are traded, it's an important tool for tracking the amount of fishing that's going on and for, in some cases, banning that trade if that's helpful to fishery management organizations, particularly where there are no regional fishery management organizations in place.

A relatively new issue is uncontrolled deep sea fishing. As the global fish stocks have become overfished, vessels are displacing to the deep sea seamounts in mid-oceanic ridges. These are areas beyond any domestic authority. They are often, particularly in terms

of species, not covered by regional fishery management organizations that are already in place because they're not the pelagics, they're fish such as toothfish. Unmanaged and uncontrolled fishing is a real threat to biodiversity.

Another problem is subsidies, because some countries continue to subsidize their fishing industry. We're working through the World Trade Organization, WTO, to address these subsidies, which reach levels of $10 to $15 billion a year.

In summary, we are making progress, not as fast as some would hope, but we feel that we're addressing these issues internationally. We are leading the fight to address overfishing, overcapacity, and reducing bycatch.

Thank you, Mr. Chairman.

[The prepared statement of Dr. Lent follows:]

PREPARED STATEMENT OF REBECCA LENT, PH.D., DEPUTY ASSISTANT ADMINISTRATOR FOR REGULATORY PROGRAMS. NATIONAL MARINE FISHERIES SERVICE, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, UNITED STATES DEPARTMENT OF COMMERCE

Mr. Chairman and Members of the Committee, thank you for inviting me to testify on topics related to international fishery conservation and management. I am Rebecca Lent, Deputy Assistant Administrator for Regulatory Programs in the National Oceanic and Atmospheric Administration, Department of Commerce.

Within the Bush Administration, NOAA Fisheries and our Federal partners at the Department of State and the Department of Homeland Security, working in concert with state, tribal, and other Native American groups, have and are continuing to accomplish an impressive program of international living marine resource conservation and management.

The United States has one of the most comprehensive systems of fisheries management. The commercial fishing industry in the United States is required to comply with extensive science-based regulations that are more robust than those found in industrial fishing countries world-wide. Moreover, the United States has led efforts to reduce overfishing and fishing industry capacity under many international agreements. The United States continues to be a world leader in compliance with these international fisheries agreements. Hopefully, other industrial fishing countries, such as members of the European Union, will recognize the benefits of sustainable fishing practices and improve compliance with these international agreements.

I would like to emphasize, however, that many of the challenges we face in international fisheries management will require broad international cooperation if we are to be successful in our efforts to mitigate the decline and collapse of major fish stocks. These challenges include: (1) eliminating overfishing; (2) rebuilding overfished stocks; (3) managing the needs of highly migratory species; (4) managing fisheries sustainably; (5) recovering protected species; (6) conserving habitats; (7) improving the science that guides management; (8) working toward ecosystem-based management; and (9) addressing problems of bycatch and harvesting capacity.

I will provide an overview of our efforts to address these issues in several international fora including (1) ICCAT (*International Commission for the Conservation of Atlantic Tunas*), (2) CCAMLR (*Convention on the Conservation of Antarctic Marine Living Resources*), (3) IWC (International Whaling Commission), (4) NAFO (Northwest Atlantic Fisheries Organization), (5) FAO *(Food and Agriculture Organization of the United Nations*), (6) WTO (*World Trade Organization*), (7) CITES (*Convention on International Trade in Endangered Species of Wild Fauna and Flora*), (8) the growing focus of attention and concern regarding deep sea fishing on seamounts and mid-oceanic ridges, and (9) recent press accounts about the status of the world's fish stocks and their management.

ICCAT (*International Commission for the Conservation of Atlantic Tunas*)

ICCAT coordinates the international management of tunas and tuna-like species. The organization currently has 35 members. Primary U.S. objectives over the last several years have included seeking measures to rebuild overfished stocks and improve adherence to ICCAT rules by members and non-members. The United States has also focused on measures to address bycatch issues.

With regard to rebuilding, we have had a number of successes, including the adoption of rebuilding plans for western bluefin tuna (1998), North Atlantic swordfish (1999), and blue and white marlins (2000). The sacrifices made to rebuild North Atlantic swordfish began to show results last year with a significant increase in biomass, which subsequently led to increases in quota allocations. On the compliance front, ICCAT has adopted a variety of state-of-the-art measures. ICCAT can and has imposed penalties (*e.g.,* quota reductions, trade sanctions) against members for infractions. The Commission has also adopted action plans that contemplate the use of trade sanctions against countries that diminish the effectiveness of ICCAT, with sanctions having been imposed in several instances. These measures have been successful in reducing illegal, unregulated, and unreported (IUU) fishing in the Convention area. Most recently in its fight against IUU fishing, ICCAT adopted a vessel list program that provides a basis to limit market access to only those products taken by authorized vessels.

Regarding bycatch issues, ICCAT has adopted proposals to improve data collection and reporting on sharks and seabirds. A similar proposal for sea turtles will be under consideration at the 2003 ICCAT meeting. The ICCAT measure also encourages releasing sharks taken as bycatch, and minimizing shark waste and discards. A shark assessment is planned for 2004.

Despite the strides made at ICCAT, particularly over the last decade, a number of difficult issues remain. Data collection and reporting continue to be a challenge for some parties, and a special meeting will be held in the fall 2003 to consider this matter. Moreover, the stock structure of Atlantic bluefin tuna, currently managed as two separate stocks, remains in question and ICCAT agreed to convene a meeting of scientists and managers in November 2003 to look into this issue. In addition, ensuring ICCAT rebuilding plans stay on course and new programs are developed for other overfished stocks (such as bigeye tuna) will be important in upcoming meetings. We intend to ensure that ICCAT continues to make needed progress in improving member compliance and non-member cooperation, including addressing IUU issues.

With respect to compliance issues in ICCAT fisheries, the Secretary of Commerce recently (April 25, 2003) sent letters to the European Commission (EC). Secretary Evans noted the importance of the conservation of marine fisheries and expressed concern about actions and positions taken by the EC at ICCAT in 2002–particularly regarding EC support of an eastern bluefin tuna total allowable catch far in excess of scientifically recommended, sustainable levels. Secretary Evans stated that positions such as these have the potential to threaten the long-term future of shared resources and to lead to serious friction in U.S.-EC trade relations. As an example, the Secretary pointed to a petition filed and later withdrawn by a recreational fishing organization under Section 301 of the Trade Act of 1974 that sought relief from allegedly unjustifiable acts, policies, and practices of the EC related to ICCAT. In his letter, the Secretary urged the EC to take prompt action to improve their compliance with existing ICCAT measures and to reconsider accepting science-based conservation measures in the future.

In addition to this action, NOAA Fisheries has received a request to certify the EC pursuant to the Pelly Amendment to the Fishermen's Protective Act of 1967 for diminishing the effectiveness of ICCAT. The decision on certification has been left open for the time being while we monitor the activities of the EC and its Member States. In this regard, Assistant Administrator Hogarth recently sent a letter to the EC Director General for Fisheries explaining the request, noting its seriousness, and indicating that we intend to investigate it fully. He has also been in contact with the head of the EC delegation to ICCAT concerning this matter, and we continued our dialogue at the ICCAT intersessional meetings in Madeira in late May 2003. We have been stressing the importance of EC implementation of its ICCAT commitments and will continue to do so.

CCAMLR (*Convention on the Conservation of Antarctic Marine Living Resources*)

Due to the scale of IUU fishing for toothfish in and beyond waters subject to CCAMLR, a Catch Documentation Scheme (CDS) for toothfish was adopted in 1999. The CDS identifies the origin of toothfish imports, determines if the toothfish were harvested consistent with CCAMLR conservation measures, monitors international trade, and provides catch data for stock assessments in the Convention Area. Although NOAA Fisheries has fully implemented the CDS in the United States, it recently published final regulations streamlining administration of the program and enhancing efforts to prevent the import of illegally harvested toothfish. Effective June 16, 2003, NOAA Fisheries will operate a pre-approval system for toothfish imports. Pre-approval will allow the agency to review toothfish catch documents suffi-

ciently in advance of import to facilitate enforcement and provide additional economic certainty to U.S. businesses in the toothfish trade.

Information provided to CCAMLR has indicated high levels of IUU fishing in the Convention Area. The majority of CCAMLR Members agreed that catches reported as harvests from FAO Statistical Areas 51 and 57, high sea areas in the Indian Ocean adjoining the Convention Area, were not credible and were in all likelihood fish pirated from within the Convention Area. They also expressed concerns, shared by the United States, that information reported in catch documents did not match scientific understanding of toothfish distribution and potential biomass of toothfish on the high seas. Therefore, also as of June 16, 2003, no imports of fresh or frozen toothfish represented as harvested within FAO Areas 51 or 57 will be allowed entry into the United States. Importers applying for a pre-approval certificate for fish that has been harvested from either of these areas will be denied pre-approval.

IWC (*International Whaling Commission*)

The 55th Annual Meeting of the International Whaling Commission (IWC) will be held in Berlin June 16th through 19th. The Bush Administration reaffirms longstanding principles that will guide United States policy at this meeting: we will support the IWC's commercial whaling moratorium, support aboriginal subsistence whaling, oppose lethal research whaling, and oppose the international trade of whale products.

Iceland recently rejoined the IWC with a reservation to the commercial whaling moratorium. The Bush Administration welcomes Iceland as a member of the Commission, but the United States recently filed a formal objection to Iceland's reservation. In addition, Iceland recently submitted to the IWC a plan to conduct lethal research on whales. The United States opposes lethal research and urges Iceland not to begin this program. Likewise, Japan continues to conduct lethal research with the take of up to 700 whales per year. The United States continues to urge Japan to cease the killing of whales under scientific permits. Germany will put forth a resolution on scientific whaling at the annual meeting that we intend to support.

In addition, Norway and Iceland have initiated the first international trade of whale products in 14 years. The Bush Administration has urged both countries to halt this trade. Last year, Japan submitted a resolution for the consideration of Japanese community-based whaling. This resolution contained a marked change from previous proposals whereby the quota would be non-commercial, and based on the advice of the Scientific Committee. Japan is expected to present a proposal regarding this matter. We have not yet seen this proposal, but will only consider supporting it if these two criteria (non-commercial—i.e., the proposal would establish sufficient safeguards to ensure that whales that would be taken under the program are not used for commercial purposes—and based upon the advice of the IWC Scientific Committee), at a minimum, are met.

Mexico plans to put forward a resolution to create a Conservation Committee that is meant to reaffirm the conservation objective of the Convention. The United States intends to support the creation of this committee, as it would improve the governance of the Commission's work.

Italy intends to put forth a resolution on bycatch of whales. The United States intends to support this resolution, since we recognize bycatch as a serious conservation issue and it would be synergistic with the National Bycatch Strategy recently issued by NOAA Fisheries.

The United States continues to work in good faith to establish a Revised Management Scheme (RMS) for commercial whaling. However, the last round of working group meetings were disappointing in that representatives of the whaling nations and their supporters did not accept any compromise put forth by the United States and others. The United States has repeatedly demonstrated its willingness to develop a science-based and enforceable RMS. Our efforts, however, have been thwarted by the pro-whaling nations, which, to date, have been unwilling to agree to the incorporation of adequate monitoring measures into the RMS. At the annual meeting, Japan will likely put forth a proposal on the RMS. However, Japan's proposal last year lacked the necessary components for a credible scheme and would have eliminated the commercial whaling moratorium and whale sanctuaries.

Finally, the United States intends to support Australia and New Zealand in their proposal to establish a South Pacific Sanctuary, and Brazil's proposal to establish a South Atlantic Sanctuary. Both of these sanctuary proposals are science-based and would help the recovery of depleted whale stocks.

NAFO (*Northwest Atlantic Fisheries Organization*)

NOAA has provided leadership on U.S. delegations to NAFO meetings since the United States joined the organization in 1996. NAFO manages groundfish, flatfish,

and shellfish (many of which are under zero directed take regimes) in the waters of the northwest Atlantic beyond areas of national jurisdiction. Some of these stocks are rebuilding and one, yellowtail flounder, has recovered sufficiently to reestablish a directed fishery. A U.S. priority within NAFO is to reform allocation practices and obtain greater access for U.S. vessels to fish for recovering stocks. NOAA Fisheries hosted a NAFO Working Group meeting in Miami earlier this year to press for more progress in this area, but it has been slow. On the other hand, we have made considerable gains within NAFO on transparency, implementing a risk-based approach, effectively dealing with problems of fishing by non-members, and upgrading NAFO mechanisms and processes for monitoring compliance by NAFO members. Nevertheless, the issue of obtaining benefits for U.S. fishermen commensurate with the considerable financial and other contributions the United States makes to NAFO has led us to begin a reassessment of our proper role within the organization.

COFI/Capacity (*Committee on Fisheries, Food and Agriculture Organization of the United Nations*)

A major and common problem that plagues a large number of domestic and world fisheries is overcapacity in the harvesting sector. The United States has recognized this global problem for more than a decade, and has worked for years to address the issue of overcapacity in the harvesting sector through technical and policy-level consultations held under the sponsorship of FAO. Accordingly, we agreed in 1997 to consultations leading to an international plan of action for the management of fishing capacity (IPOA) and joined all the other FAO Members in approving the IPOA on this subject in 1999. NOAA Fisheries played an active role in the technical and policy-level meetings to bring these negotiations to a successful conclusion. In particular, I would like to single out the efforts of NOAA Fisheries technical experts who developed definitions and measures of capacity and overcapacity for marine capture fisheries that were later endorsed by FAO, and have become the world standards.

The IPOA for the management of fishing capacity included a provision calling on all signatories to develop a national plan of action for the management of fishing capacity. NOAA Fisheries has been working on this task for the last few years, but crafting a national plan of action for the management of fishing capacity has been a challenge. The Magnuson-Stevens Fishery Conservation and Management Act does not mandate the regulation of fishing capacity, and certain tools that would enable the Councils and NOAA Fisheries to manage capacity were either legally unavailable—in the case of individual fishing quotas until October 2002—or were untried and therefore untested—in the case of Fishing Capacity Reduction Programs under Section 312(b)-(e). Nevertheless, NOAA Fisheries has prepared a draft national plan of action that we believe is consistent with our legal mandates and authorities.

Our national plan of action has gone through internal and public review. We are in the process of making changes in response to comments provided by our constituents through a *Federal Register* notice of availability. The comment period closed in March of this year. We expect to send the final plan to FAO this year.

The United States, through the Committee on Fisheries (COFI), also provided leadership in the development of IPOAs regarding seabirds, sharks, and IUU fishing. The United States has completed development of its NPOAs relative to seabirds and sharks, and has developed a draft NPOA on IUU fishing that was presented at COFI earlier this year.

CITES (*Convention on International Trade in Endangered Species of Wild Fauna and Flora*)

The Bush Administration continues to believe that CITES can serve as a useful adjunct to traditional fisheries management through its comprehensive permitting and trade control protocols. Such systems can deter IUU fishing and assist in promoting domestic management programs for commercially exploited marine species. CITES was designed to support sustainable international trade in fauna and flora, but is not a substitute for scientific management and domestic regulation of fishery resources. In instances where no RFMO is in place (as is the case with queen conch and sturgeon), a CITES listing can encourage the establishment of regional management mechanisms. In the case of queen conch (listed in 1992), since 1996, NOAA Fisheries and the Caribbean Fishery Management Council have organized the International Queen Conch Initiative, which provides a forum for countries in the Wider Caribbean to develop coordinated approaches to regional management of the species. In the case of sturgeon (listed in 1997), regional cooperation among range States has led to the setting of intergovernmental quotas for sturgeon species in the Caspian Sea region. Closer cooperation between CITES and FAO should further strengthen

these efforts, as FAO is experienced in supporting regional fisheries management organizations in developing regions of the world.

The Bush Administration has also supported cooperative efforts between CITES and CCAMLR to improve the management and enforcement of measures taken to conserve toothfish and potentially other Southern Ocean species. In addition, we continue to advocate the continued linkage of CITES listings with actions taken by the IWC to conserve whale stocks, such that the applicable trade prohibitions under CITES reflect the decisions on commercial whaling established by the recognized international management authority.

Deep Sea Fishing

From a global perspective, as more and more fish stocks have become overfished, the search for economically harvestable fish resources has led displaced fishing vessels to deep sea seamounts and mid-oceanic ridges in high seas areas beyond the jurisdictions of any nation and beyond the reach of many international management regimes. These areas have several common characteristics: they are isolated and fragile ecosystems, and there tends to be a paucity of legal frameworks within which to manage the fisheries in these areas in a sustainable or any other manner. Areas of concern include deep sea seamounts and mid-oceanic ridges in the Indo-Pacific Oceans and the Atlantic Ocean. The lack of legal management frameworks makes these areas one of the last frontiers in the world's oceans. Unmanaged and uncontrolled fisheries in these areas represent the greatest threat to the conservation of biodiversity due to human factors, since other threats (*e.g.,* due to ship discharges and other sources of pollution) are already at least potentially addressed by existing international legal frameworks.

There are a number of international meetings dealing with these problems that are scheduled during the balance of this year and beyond. NOAA Fisheries intends to participate actively in addressing these matters because we are all too familiar with the portability of deep sea fishing fleets in the current environment of overfishing and overcapacity. We first faced these challenges with regard to large-scale pelagic driftnet fishing on the high seas. We will bring our responsibilities for recovering and conserving protected species and habitats, and our concern with reducing bycatch and addressing IUU fishing to bear in addressing these problems as part of NOAA's global marine stewardship mission.

The World's Fish Stocks and Their Management

On May 15, 2003, an article entitled "Rapid worldwide depletion of predatory fish communities" was published in the scientific journal *Nature.* The article is consistent with the current scientific view of impacts of global fisheries on marine ecosystems, but determining that fish stocks worldwide have declined is not a new conclusion. NOAA Fisheries scientists share many of the views identified by the authors of the article. However, there continues to be significant uncertainty regarding what may have gone on before data were collected systematically. Although some conclusions reached by the authors that are global in scope (*e.g.,* regarding overfishing and resource declines) are widely shared in the scientific community, the conclusions reached about specific fisheries and ocean areas are affected by this uncertainty.

We recognize that world ecosystems have been, and will continue to be, altered as a result of human activities. Rebuilding stocks to healthy levels includes a human impact component that must be considered. Therefore, NOAA is increasingly focusing its attention on scientific research into the impacts of marine fishing on our ecosystems. Because this is a global issue, we are working with the international community to address the multiplicity of issues that surround sustainable utilization of living marine resources. Although scientific research is an important component, the United States has made progress in a number of areas of fisheries management. For example, the United States is a strong leader in swordfish and billfish conservation through the ICCAT. The United States is also a leader in technology development (*e.g.,* longline gear) and transfer as it relates to sea bird and sea turtle bycatch. Nonetheless, we are not satisfied with the current state of international fisheries management, and we will continue to promote the establishment of rebuilding programs for overfished stocks, as we have done in ICCAT and NAFO, and improved, science-based management, as we are doing in all the regional fisheries management organizations of which we are a member.

Fish Subsidies

Many commercially-traded fish stocks are fully exploited or over exploited. While it is generally acknowledged that ineffective or poorly enforced management regimes in global fisheries are the principal culprits in the decline of certain stocks, there is reason to believe that global levels of subsidies (estimated at between $10–15 bil-

lion annually) have exacerbated the problem. For this reason, World Trade Organization (WTO) Ministers agreed in Doha, Qatar in December 2001 to clarify and improve existing WTO rules on fisheries subsidies. The World Summit on Sustainable Development, held in Johannesburg South Africa in September 2002, further committed the global community to reduce and eliminate subsidies that lead to overcapacity and overfishing.

The United States has actively supported and contributed to work on fisheries subsidies in a variety of fora, and has long advocated WTO action on this issue. We believe that the fisheries subsidies negotiations are an important part of the WTO's commitment to making trade, development, and environmental policies mutually supportive: in other words, a demonstration that trade liberalization is a "win-win-win." We have therefore been working hard in Geneva, along with a group of like-minded countries, known as the "friends of fish," to fulfill the Doha mandate and establish better disciplines on fisheries subsidies. Although a few countries have slowed the negotiations somewhat, progress toward a successful conclusion is being made.

International Bycatch Reduction Activities

In the September 2000 *Annual Report to Congress on International Bycatch Agreements,* required by Section 202(h) of the Magnuson-Stevens Fishery Conservation and Management Act, NOAA Fisheries concluded, and the Department of State concurred, that seeking international agreements with foreign nations conducting pelagic longline fishing operations for Atlantic and Pacific highly migratory species was necessary and appropriate to protect endangered and threatened sea turtles. An international strategy was developed and detailed in the June 2001 Report to Congress.

In January 2002, Assistant Administrator Hogarth appointed an interagency International Bycatch Reduction Task Force to carry out the strategy. Although the initial focus of this effort was to reduce sea turtle bycatch in longline fisheries internationally, it also took on responsibilities relating to bycatch issues involving sharks and seabirds. It has since been fully integrated into our broader NOAA Fisheries National Bycatch Strategy. We continue to host and participate in international working groups in support of bycatch mitigation. A few examples of these include:

- Participation and financial support for the Second International Fishermen's Forum in November 2002, which focused on sea turtle and seabird bycatch mitigation;
- Participation and financial support of an Asia-Pacific Economic Forum Fisheries Working Group Shark Workshop, which included bycatch issues, in Huatulco, Mexico in December 2002;
- Planning and hosting an international technical workshop on reducing sea turtle interactions with longline gear in February 2003, in Seattle, Washington;
- Securing State Department funding to support the meeting of the Parties to the First Inter-American Sea Turtle Convention, to be held in San Jose, Costa Rica, in August 2003; and
- Planning for an interdisciplinary workshop to be co-sponsored by the International Center for Living Aquatic Marine Resource Management and others on the conservation needs of sea turtles in the Pacific Basin, planned for November 2003 in Bellagio, Italy.

The Task Force is preparing a report of its activities during the first year of operation, and I would be happy to provide copies of it when completed.

Thank you, Mr. Chairman, for this opportunity to review how NOAA Fisheries is conducting the tasks assigned it pursuant to the many international fisheries' treaties and conventions with which the United States is involved. The Bush Administration is committed to working with our state and Federal partners for the effective management of our Nation's fisheries resources. This concludes my testimony, Mr. Chairman. I am prepared to respond to any questions Members of the Committee may have.

The CHAIRMAN. Thank you, Dr. Lent. Mr. Turner, welcome.

STATEMENT OF HON. JOHN F. TURNER, ASSISTANT SECRETARY, BUREAU OF OCEANS AND INTERNATIONAL ENVIRONMENTAL AND SCIENTIFIC AFFAIRS, DEPARTMENT OF STATE

Mr. TURNER. Mr. Chairman, good morning, and Senator Stevens, Senator Lautenberg. Indeed, it's a pleasure for me to join my colleagues, Dr. Lent and Admiral Collins, to address this most important issue of international fisheries, and I have a written statement which I'd like to submit to the record.

Mr. Chairman, indeed, as you have noted, a lot of attention recently has now focused on oceans and marine resources, and rightfully so. Obviously, many of the world's most valuable fish stocks are in bad shape.

As you also noted, Mr. Chairman, overfishing is a major problem, and is a closely related problem of fishing overcapacity. There are simply too many boats chasing too few fish. Modern fishing technologies further increase this capacity by making it easier to locate, track, and kill fish. Some Government subsidies to the fisheries sectors also contribute to this problem of overcapacity. The very nature of ocean fishing, particularly fishing on the high seas, makes fishing rules, where present, difficult to enforce.

The need to combat IUU fishing has risen to the forefront of the challenges we face and, of course, paramount around the world we must also reverse the serious degradation of marine habitats of sport fish and marine life.

Mr. Chairman, I think we are making some progress. Some significant accomplishments have been done during the last couple of years to build a foundation of promise for the future. Recent international agreements seek to respond to these problems. The U.N. Fish Stocks Agreement and the FAO High Seas Compliance Agreement, both of which are now in force, contain groundbreaking provisions on the responsibility of flag states to control the fishing activities of their vessels.

Two FAO international plans of action on fishing capacity and IUU fishing provide additional tools. Two others are in the works to address the important issue of bycatch mortality and shark conservation. The upcoming trade round also has a mandate to impose greater discipline on subsidies that contribute to overfishing.

Although the situation we face is indeed global in nature, most international fisheries are managed on a regional basis. I'd like to just briefly touch on a couple of regions. First is the issues with Canada and the Pacific Northwest, and a resource I know important to the constituents of Senator Stevens, and second, the tuna fisheries in the vast Western and Central Pacific.

I'm pleased to report that relationships with Canada over fishery issues in the Pacific Northwest, including Alaska, are better than they have been in almost two decades. The Pacific Salmon Agreement resolved longstanding issues between the two sides, and has allowed the Pacific Salmon Commission to function effectively once again. We also have included three other bilateral fishery agreements with Canada, which I'd like to note.

First is the agreement to manage the salmon fisheries on the Yukon River. However, there is ongoing need for authorization and appropriation of funds to implement this agreement. Second, the

U.S. and Canada have agreed to amend the 1981 Albacore Tuna Treaty to limit the level of fishing permitted by vessels of each country in their mutual waters. We hope that the Senate will act favorably on the treaty amendment and that Congress will enact implementing legislation.

Third, we have recently concluded negotiations with Canada on a new agreement to manage and share the valuable transboundary stock, Pacific whiting, also known as Pacific hake. This agreement, once it enters into force, should prevent overfishing of this stock. Again, we look forward to working with Congress to develop the implementing legislation.

Concerning, briefly, the Pacific tuna fisheries, I would note two positive developments. In 2000, the United States and 18 other nations signed a new treaty to manage tuna and other highly migratory species in the Western Central Pacific, an area that produces more than half the world's tuna catch, and a major area until now not covered by a management agreement. Once the treaty is submitted to the Senate for advice and consent, we will work with Congress again on implementing legislation.

Second, we have reached agreement with the Pacific Island parties to extend the South Pacific Tuna Treaty. This is the successful existing treaty that allows U.S. vessels to fish for tuna in the waters of 16 Pacific Island nations. We have submitted the treaty amendments to the Senate.

I'm proud of the progress and the leadership role the United States has played in many of these successes. It demonstrates that concerted international and regional action can help address the problems we are facing.

Let me suggest some next steps we all need to pursue in the future. First, as the Admiral pointed out, the international community must make sure that the commitments contained in recent fishery agreements are implemented. Specifically, we must continually press our international partners to join us in rebuilding depleted fish stocks, reduce fishing capacity, conduct more fisheries science, and follow the advice of that science, move ahead toward an ecosystem-based management, reduce the sources of land-based pollution and reef degradation, and develop fishing gear and techniques that reduce bycatch further and produce fewer adverse effects.

Second, we must complete the task of creating new management regimes to oversee international fisheries that have until recently been largely unregulated.

Third, we must expand the use of new tools for enforcing fishing rules and cracking down on illegal fishing.

Finally, we must all work together to build the capacity of developing nations to help them manage fisheries in waters under their jurisdiction. Roughly 90 percent of the fish caught in oceans are taking from waters within the jurisdiction of coastal states, particularly developing coastal states. Because many valuable fish stocks migrate widely, it is manifestly in our own interests to help these developing countries better manage these stocks and their waters. Again, Mr. Chairman and Committee Members, thank you for this opportunity to appear before you, and I, too, look forward to trying to answer any of your questions.

Thank you, Mr. Chairman.
[The prepared statement of Mr. Turner follows:]

PREPARED STATEMENT OF HON. JOHN F. TURNER, ASSISTANT SECRETARY, BUREAU OF OCEANS AND INTERNATIONAL ENVIRONMENTAL AND SCIENTIFIC AFFAIRS, DEPARTMENT OF STATE

Mr. Chairman and Members of the Committee:

Your invitation to testify before this Committee today on the U.S. role in international fisheries could not be more timely. The state of the world's oceans in general, and its fish stocks in particular, has recently received a great deal of attention. We are also looking forward to the report of the Commission on Ocean Policy later this year, which will undoubtedly contain a broad range of recommendations for action that will warrant serious consideration by the Administration and Congress.

I welcome this attention, for it affords us an opportunity to raise awareness of the issues we have been confronting, of the progress we have made, and of the daunting challenges that still face us.

My statement today begins with a brief overview of the general situation as we see it and then reviews a number of more specific issues, with a particular focus on those for which the Administration believes congressional action is necessary or desirable. In some cases, the testimony of other witnesses on this panel will elaborate on these specific issues. My statement closes with some thoughts on next steps that we must take.

Overview

In 2002, the Food and Agriculture Organization of the United Nations (FAO) reported that global production from capture fisheries and aquaculture is currently the highest on record. Worldwide, the tonnage of fish caught in the oceans and inland areas has remained relatively stable in recent years, while the tonnage of fish produced by aquaculture has continued to increase markedly. International trade in fish products has also risen tremendously.

These trends mask a number of very serious problems, however. Many of the world's primary fishery resources are under stress. A number of key fish stocks have collapsed from overfishing and environmental degradation (such as cod in the Northwest Atlantic), while others have become depleted (such as Atlantic bluefin tuna). While stocks in the Pacific Ocean are generally thought to be in somewhat better shape, increasing fishing effort on a number of those stocks gives us reason to be concerned.

In 2002, FAO estimated that, among the major marine fish stocks or groups of stocks for which information is available, about 47 percent are fully exploited, while another 18 percent are overexploited. An additional 10 percent of such stocks have been depleted or are recovering from depletion. In short, there are relatively few major fisheries that can absorb additional fishing effort. Meanwhile, we see a growing demand for fisheries products and many vessels looking for new places to fish.

Many factors have contributed to this situation. Most international management of fisheries relies upon "open access" approaches that can create incentives toward overfishing. Moreover, improvements in fishing technology, coupled with substantial government subsidies to fishers, have greatly increased harvesting capacity worldwide. To make matters worse, environmental degradation has spoiled some fish habitat. The ability of vessels to operate outside governmental controls, including by adopting "flags of convenience," has rendered fisheries enforcement less than effective in many circumstances. The use of certain kinds of fishing gear and fishing techniques has also led to serious concerns about the "bycatch" of other species (including some endangered species) and harm to the marine environment.

Fortunately for the fish, and for the fishers whose livelihoods depend on them, we have worked to create a network of agreements designed to address these critical problems. The United States can take great pride in our leadership in this field, as we often played the role of drafters and brokers for these international agreements. Congress has also provided leadership in this field, including through Senate advice and consent to the ratification of international fisheries treaties and enactment of relevant legislation.

Building on the general international law framework set forth in the 1982 United Nations Convention on the Law of the Sea, the past decade has witnessed a veritable explosion of new agreements and standards for the conservation and management of fisheries worldwide. Some of the important instruments are:

- The 1995 UN Fish Stocks Agreement

- The 1993 FAO Compliance Agreement
- The 1995 FAO Code of Conduct for Responsible Fisheries
- Four FAO International Plans of Action on specific matters
- The 1996 Inter-American Sea Turtle Convention
- The 1999 Agreement on the International Dolphin Conservation Program
- The 2000 Central and Western Pacific Tuna Convention (not yet in force)

Our challenge now is to ensure effective implementation of the full range of these instruments. Working with Congress, U.S. constituent groups and our partners in the international community, we hope to realize the goal of sustainable fisheries worldwide.

Global Issues

Fisheries around the world are extraordinarily diverse. The species sought, the gear and techniques employed and the markets served all vary widely. Still, a number of common problems plague many fisheries. Worldwide, we are experiencing significant overcapacity of fishing fleets—there are simply too many boats chasing too few fish. Excess fishing capacity creates pressure toward overfishing. Certain government subsidies to the fisheries sector exacerbate this problem of overcapacity, by allowing otherwise unprofitable vessels to remain engaged in fishing activity.

The very nature of ocean fishing, particularly fishing on the high seas, makes it difficult to enforce fishing rules. With the downturn in many valuable fisheries, the rules have become stricter, while the incentive to evade the rules has grown. The need to combat "illegal, unreported and unregulated" fishing—also known as IUU fishing—has risen to the forefront of challenges facing the international community in this field.

Many of the agreements I mentioned earlier seek to respond to these common, pressing problems. The UN Fish Stocks Agreement and the FAO Compliance Agreement, both of which are now in force, contain ground-breaking provisions on the responsibilities of flag States to control the fishing activities of their vessels. Two of the FAO International Plans of Action—on fishing capacity and IUU fishing—have provided new tools for addressing these concerns. The upcoming Trade Round also has a mandate to impose greater disciplines on subsidies that contribute to overfishing.

Let me reiterate that these agreements might not exist, or would not be as strong, without U.S. leadership in this field. The United States was among the first to ratify the UN Fish Stocks Agreement and the FAO Compliance Agreement. Our concerted diplomatic campaign to urge other nations to ratify these treaties has succeeded in bringing them into force. We can also take credit for our many contributions to the FAO International Plans of Action and the other instruments now in place to pursue sustainable fisheries.

Regional Issues

Regional Fishery Management Organizations

Much of the specific management of international fisheries is accomplished through regional fisheries management organizations. The United States is a member of more than a dozen such commissions and related organizations. These organizations adopt measures to conserve and manage fisheries under their auspices, conduct related scientific research and provide venues for undertaking new policy initiatives in the field of marine conservation.

Funding to support U.S. participation in these organizations comes from appropriations to the International Fisheries Commissions account. Specifically, this account covers the U.S. share of operating expenses of nine international fisheries commissions and organizations, one sea turtle convention, the International Whaling Commission, two international marine science organizations, and travel and other expenses for non-Federal U.S. Commissioners.

In recent years, Congress has appropriated roughly $20 million for this account annually. For FY 2003, the Bush Administration requested $19.78 million. Congress appropriated $17.1 million. In the Conference Statement accompanying the FY 2003 Omnibus Appropriations Bill, no funding was allocated for the operating expenses of the Pacific Salmon Commission and five other commissions. The Administration has submitted a notice to Congress on reprogramming funds within the International Fisheries Commission. The reprogramming will allow for the smallest feasible amount of funding so the Pacific Salmon Commission may continue operations and full funding of the smaller commissions. The Great Lakes Fisheries Commission and the International Pacific Halibut Commission will both be taking reductions in order to have all fish commissions in this account operating this fiscal year.

For FY 2004, the Bush Administration's budget request for International Fisheries Commissions amounts to $20.04 million, which includes $75 thousand for the Antarctic Treaty. We hope that Congress will appropriate the full amount.

International Commission for the Conservation of Atlantic Tunas (ICCAT). This commission manages tunas (and tuna-like species, such as swordfish) in the Atlantic Ocean. Key conservation issues facing ICCAT include maintenance of rebuilding programs for North Atlantic swordfish, pressing for greater compliance with ICCAT rules, cracking down further on "IUU" fishing of ICCAT species, reviewing ICCAT's practice of managing eastern and western bluefin tuna as separate stocks, and pressing for measures to conserve sea turtles and sharks incidentally captured in these fisheries. Recent attention has been focused on the EU's activities in ICCAT, and in fact a coalition of environmental groups and several state governors submitted a request to certify the EU under the Pelly Amendment to the Fishermen's Protective Act of 1967 for diminishing the effectiveness of ICCAT. We are working closely with the Department of Commerce on this issue.

Northwest Atlantic Fisheries Organization (NAFO). This Commission manages a wide variety of fisheries on the high seas of the northwest Atlantic Ocean, many of which remain seriously depleted. Some stocks, however, are rebounding after years of sharply restricted fishing, including yellowtail flounder. U.S. priorities in NAFO include seeking greater access for U.S. vessels to such recovering stocks and modifying the NAFO system for allocating quotas more generally. The United States has taken an active role in NAFO and held many positions of leadership in the organization; however, we are considering the proper balance between our level of participation in NAFO and the benefits we accrue there. The Department of Commerce witness will also address this issue in more detail.

Western and Central Pacific Fisheries Commission (WCPFC). Negotiations to establish a Western and Central Pacific Fisheries Commission concluded in September 2000. Throughout the negotiating process, the United States was a leader in developing the key provisions of this Convention and in bringing other nations together to accept a strong and balanced text. The United States and 18 other States have signed the Convention that will create the WCPFC, but it has not yet entered into force. The area covered by this Convention encompasses the last major area of the world's oceans not covered by a regional management regime for tunas and other highly migratory species. This region produces more than half the world's annual tuna catch. The United States is actively participating in the WCPFC Preparatory Process.

One key issue that we hope to see addressed under this new Convention is that of excess fishing capacity—too many vessels catching too many fish. While the stocks of tuna in the Western and Central Pacific are not currently considered to be over-fished, excess capacity complicates adoption and implementation of effective conservation and management measures and has significant implications for the economic viability of these fisheries in the longer term.

This Convention, which enjoys strong support from the tuna industry and conservation organizations, will require Senate advice and consent to ratification. New legislation to implement the Convention will also be necessary before the United States could become a party to it. We look forward to working with the Committee on such legislation.

Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR). The 24-member Commission for the Conservation of Antarctic Marine Living Resources governs the harvesting of marine resources in the Southern Ocean. Concern has grown over the illegal harvesting of Patagonian toothfish, a high-value, long-lived fish species marketed in the U.S. as Chilean sea bass. CCAMLR designed an innovative catch documentation system in 2000 and, at its last meeting in November, adopted changes to distinguish better between legal and illegal catches and is instituting a list of fishing vessels which have engaged in IUU fishing. CCAMLR also is moving towards an Internet-based document and tracking system to reduce the possibilities for fraud.

Other Commissions. The United States participates in a number of other international fisheries commissions as well. Two of them, the International Pacific Halibut Commission and the Great Lakes Fishery Commission, involve Canada as the only other member. Two others, the North Atlantic Salmon Conservation Organization and the North Pacific Anadromous Fish Commission, have missions to conserve salmon stocks in their respective regions, including by ensuring that such stocks are not fished on the high seas. Finally, we are a longtime member of the Inter-American Tropical Tuna Commission, which regulates tuna fishing in the Eastern Pacific and is involved with our efforts to protect dolphin stocks in that region, as discussed below.

Bilateral Issues with Canada

Relations with Canada over fishery issues are better than they have been in many years. The 1999 Pacific Salmon Agreement appears to have resolved long-standing problems and has allowed the Pacific Salmon Commission to function effectively once again. The agreements on Yukon River salmon, on the amendments to the 1981 Albacore Treaty and on managing the transboundary Pacific whiting stock, described below, are noteworthy achievements as well.

The 1981 U.S.-Canada Albacore Treaty allows vessels of each country to fish for albacore, without limitation, in waters of the other country. In 2002, the United States and Canada agreed to amend the Treaty to provide for limits on such fishing. Such changes are necessary to limit a recently fast-growing Canadian fishery in U.S. waters and also to permit future management of the stock by both sides. President Bush transmitted the amendment to the Treaty to the Senate in January 2003 and we are hopeful that the Senate will act favorably on this matter in the near future. In addition, we need legislation to implement the Treaty, both in its existing form and as revised. Such legislation was introduced in the 107th Congress (H.R. 1989). The Senate passed this legislation in November 2002, but the House did not take action on the bill before final adjournment. The legislation was included in the Magnuson bill just transmitted to Congress, and we hope that Congress will pass the legislation in the very near future.

Most recently, U.S. and Canadian delegations have reached consensus on the text of an agreement to manage and share the valuable transboundary stock of Pacific whiting, also known as Pacific hake. Disagreements over sharing arrangements have led to overfishing in the past, as the United States took 80 percent of the allowable harvest, while Canada took more than 30 percent. This agreement, once it enters into force, should remedy that problem effectively. We look forward to working with Congress in developing implementing legislation for this agreement.

The United States and Canada reached agreement on a management regime for salmon fisheries on the Yukon River in Alaska and the Yukon Territory in March 2001. U.S. and Canadian officials concluded the agreement through an exchange of notes in December 2002. As this is an executive agreement, it did not require Senate advice and consent to ratification, nor was any additional legislation needed to implement to agreement. However, there is an on-going need for the authorization and appropriation of funds to implement the Agreement, including for the Restoration and Enhancement Fund established under the Agreement.

Finally, I would note that we are exploring ways to gain greater access for U.S. vessels to ports in Atlantic Canada. We are also engaged in efforts to resolve a dispute over lobster fishing in waters around Machias Seal Island off the coast of Maine.

South Pacific Tuna Access Agreement

This Treaty, which allows U.S. vessels to fish for tuna in the waters of 16 Pacific Island States, entered into force in 1988 and was amended and extended in 1993 for a ten-year period, through June 14 of this year. In 2002, the United States and the Pacific Island Parties concluded negotiations to extend the operation of this Treaty for an additional ten-year period, through June 14, 2013. The amendments to the Treaty and its Annexes will, among other things, enable use of new technologies for enforcement, streamline the way amendments to the Annexes are agreed, and modify the waters that are open and closed under the Treaty. President Bush submitted the amendments to the Treaty to the Senate for advice and consent in February 2003. Minor amendments to Section 6 of the South Pacific Tuna Act of 1988, Public Law 100–330, will be necessary to take account of the Amendment to paragraph 2 of Article 3, "Access to the Treaty Area," which permits U.S. longline vessels to fish on the high seas of the Treaty Area.

The Treaty provides considerable economic benefit to all parties, with the value of landed tuna contributing between $250 and $400 million annually to the U.S. economy. Nearly all of this fish is landed in American Samoa and processed in two canneries located there, one of which is owned by U.S. interests. These canneries provide more than 80 percent of private sector employment in that territory.

Bilateral Issues with Russia

Relations with the Russian Federation over fisheries issues in the North Pacific Ocean and Bering Sea are contentious. The failure of Russia to ratify the 1990 Maritime Boundary Treaty continues to create uncertainty, while corruption and lack of government resources have led to serious overfishing in Russian waters. A large-scale overhaul by the Government of the Russian Federation of its bureaucratic structure for managing fisheries is at present complicating efforts to address these matters. We are nevertheless actively looking for new ways to cooperate with Russia

to improve this situation, including through the development of two new agreements, one on cooperation in marine science and the other on fisheries enforcement.

Ecosystem Issues

We see a growing consensus in the international community that fisheries cannot be managed effectively by dealing with fish stocks in clinical isolation from the ecosystems in which they live. To be effective, fisheries managers must take into account such things as the relationships between target fish stocks and associated or dependent species, the effects of fishing practices on the marine environment, and non-fishing factors that affect the health and biomass of fish stocks.

The modern international norms of fisheries management certainly reflect the need for "ecosystem-based" fisheries management. The 1995 UN Fish Stocks Agreement, for example, calls upon States to

> minimize pollution, waste, discards, catch by lose or abandoned gear, catch of non-target species, both fish and non-fish species, . . . and impacts on associated or dependent species, in particular endangered species, through measures including. . .the development and use of selective, environmentally safe and cost-effective fishing gear and techniques.

The United States, through the combined efforts and Congress and the Executive Branch, has made progress in addressing these issues at the international level, but the work has, in many ways, only just begun. I would like to touch briefly on two well-known issues related to "bycatch" of non-target species: (1) efforts reduce sea turtle mortality in fishing operations and (2) efforts to reduce dolphin mortality in the purse seine fishery of the Eastern Pacific Ocean.

Sea turtles. Section 609 of Public Law 101–162 prohibits the importation of shrimp and products of shrimp harvested in a manner that may adversely affect sea turtle species. By May 1 of each year, the Department certifies to Congress those nations meeting criteria set forth in the statute relating to the protection of sea turtles in the course of shrimp trawl fishing. In 2003, we certified 39 nations and one economy (Hong Kong) as meeting the requirements of Section 609. Haiti did not meet certification requirements for 2002 and Indonesia remained uncertified from the previous year. Earlier in 2003, we removed Honduras and Venezuela from the list of certified countries.

The United States is a leading participant in two groundbreaking international agreements to protect sea turtles, one in the Americas and another in the Indian Ocean region. Although both regimes are just getting off the ground, they hold considerable promise for reversing the declines of these endangered species. The Department of State leads the U.S. delegation to meetings held pursuant to these agreements. Congress has supported these agreements through the appropriations process.

We are also working with NOAA Fisheries and the international community in a variety of fora to address the specific problem of the bycatch of sea turtles in longline fisheries. In 2002, the Department participated in the Second International Fishers' Forum, hosted by the Western Pacific Fisheries Management Council in Hawaii. The Department also helped sponsor and participated in the International Technical Expert Workshop on Marine Turtle Bycatch in Longline Fisheries in February 2003 in Seattle. In February 2003, we secured a commitment of FAO to convene an international technical consultation among members of FAO on the bycatch of sea turtles in longline and other commercial fisheries. The Department views this as the next step in a global campaign to seek solutions to this serious problem. In advance of that meeting, however, we are considering ways to work within some regional fisheries management organizations, such as the Inter-American Tropical Tuna Commission (IATTC), to provide input from those organizations into that process.

Tuna/dolphin. Following enactment of the 1997 International Dolphin Conservation Program Act, the United States and other countries whose vessels participate in the purse seine tuna fishery of the Eastern Pacific Ocean entered into negotiations to create an effective, binding agreement to protect dolphins from harm in this fishery. The resulting 1999 Agreement, which built on an earlier voluntary regime, has been a solid success, bringing observed dolphin mortalities down to extremely low levels through the use of proper incentives for vessel captains and a strong oversight program that includes mechanisms for transparency otherwise unknown in the field of international fisheries. Under the resulting 1999 Agreement and the earlier voluntary regime, dolphin mortalities have been reduced more than 98 percent from as recently as 1987.

We are aware of concerns regarding the level of compliance with this Agreement by some fishing countries. While the level of reported infractions represents a small

percentage of overall activity under the Agreement, the Departments of State and Commerce are working with the other participants in the International Dolphin Conservation Program to address these concerns and to ensure that compliance with the Agreement is at the highest possible level. It should be noted, however, that the other countries whose vessels operate in this fishery entered into the 1999 Agreement with the expectation that the United States would adopt a new definition of "dolphin-safe" tuna. However, the International Dolphin Conservation Program Act made such a change in definition contingent on the outcome of certain studies and a finding by the Secretary of Commerce, a matter that remains in litigation.

Some Next Steps

Mr. Chairman, the Bush Administration continues to provide strong international leadership in pushing for global action to achieve sustainable fisheries. But the United States cannot do this alone. Our success will depend in large measure on our ability to harness and direct the energies of the international community toward a number of critical goals.

First, the international community must do more than pay lip service to applying a greater conservation ethic to the regulation of ocean fisheries. The commitments contained in recent fisheries agreements are the right commitments, but they cannot remain mere words on paper. Similarly, we must give effect to the commitments in this field made at the World Summit for Sustainable Development, particularly to rebuild depleted fish stocks on an urgent basis. The nations of the world must reduce fishing capacity in an effort to reduce pressure for overfishing. We must also devote more effort to the conduct of marine scientific research related to fisheries and must follow scientific advice consistently. Governments, both individually and through their participation in regional fisheries management organizations, must continue moving towards "ecosystem-based" fisheries management as well. In particular, we must do more to develop fishing gear and techniques that reduce bycatch further and produce fewer adverse effects on the marine environment. One critical need in this respect is to find ways to reduce the bycatch of endangered sea turtles in longline fisheries worldwide.

Second, we must complete the task of creating new management regimes to oversee important international fisheries that have, until recently, been largely unregulated. One prime example is for the tuna fisheries in the Central and Western Pacific, in which the Bush Administration is exercising a leadership role, as I mentioned earlier. The United States actively helped fashion a new regime to manage fisheries in the Southeast Atlantic Ocean, even though we do not have vessels fishing in that region at this time, in order to make that regime as strong as possible. We are also nearing the completion of an effort to overhaul the treaty creating the Inter-American Tropical Tuna Commission, which will allow that body to operate in conformity with modern norms of fishery conservation and management. We must use these new and improved regimes to press forward on an aggressive agenda to achieve sustainable fisheries in these respective regions.

Third, we must expand the use of the new tools for enforcing fishing rules, many of which are showing promise. Fisheries enforcement officials from various governments are coordinating their activities in real-time as never before, including through an informal Network that the United States and Chile helped to launch. We are seeing improvements in the area of monitoring, control and surveillance of fishing vessels, including through the use of independent observers and satellite-based vessel monitoring systems. While IUU fishing remains a very serious problem, we have succeeded in raising the profile of this issue and in putting pressure on governments to curb this practice. The Bush Administration has just issued a National Plan of Action on IUU Fishing, which contains many useful recommendations. This Action Plan will build on steps being taken in a variety of regional fisheries management organizations, including documentation schemes to reduce trade in illegally harvested fish, as well as controls on the landing and transshipment of fish in port. The international community also appears to be reconsidering the notion of exclusive flag-State jurisdiction over fishing vessels on the high seas, as a growing number of agreements allow other States to take certain enforcement actions against such vessels.

Finally, we must build help developing countries build their own capacity to manage fisheries in waters under their jurisdiction more effectively. Roughly 90 percent of fish caught in the oceans are taken from waters within the jurisdiction of coastal States, particularly developing coastal States. Because many valuable fish stocks migrate widely, it is manifestly in our own interest to help these developing countries better manage those stocks in their own waters, particularly to control rampant illegal fishing that too often takes place.

We certainly have much work to do if we are to reestablish sustainable fisheries worldwide. There is no hiding the fact that the situation facing many fisheries remains bleak. In short, we must ensure that the impressive collection of international agreements we have negotiated in the past decade do not remain mere words on paper. We must continue our efforts to turn those words into concrete actions if the situation facing international fisheries is to improve.

Conclusion

Thank you very much for this opportunity to address the Committee. I would be pleased to try to answer any questions that you may have.

The CHAIRMAN. Thank you very much, Mr. Turner. I don't claim to be an expert on this issue, but it seems to me that there's good news and bad news here. In the United States' coastal waters around the Pacific Northwest, there is a steady but incremental increase in the numbers of fish and our ability to harvest and not deplete them. Do you agree or disagree with that statement? Admiral.

Admiral COLLINS. I'll probably defer to the scientists, Mr. Chairman, but clearly the most robust fisheries left on the planet are in and around our EEZs and Alaska, the pollack, salmon, and tuna fisheries that——

The CHAIRMAN. We have a sustainable growth program in these areas. Would you agree with that statement, Mr. Turner?

Mr. TURNER. Mr. Chairman, I think we still have a lot of work to do, but the U.S. among all fishing nations has tried to reduce the capacity of their fleets, has tried to embark on good management and good enforcement, and many of the progresses that I mentioned, I am convinced personally would not have happened without U.S. leadership on the world scene.

The CHAIRMAN. But I'm just talking about the fishing areas around the United States. Do you agree, Dr. Lent? I didn't know this question was going to be that hard.

[Laughter.]

Dr. LENT. Yes, Senator, we agree. We have limited entry in virtually all of our fisheries in the United States. Where we have overfishing occurring we are addressing that with rebuilding plans. We've seen clear progress in New England, 150 percent increase.

The CHAIRMAN. Now, the bad news is that apparently worldwide, according to numerous studies, there are very serious problems that are causing a significant depletion, and even endangerment of certain species of fish. Do you agree with that statement, Dr. Lent?

Dr. LENT. Yes, Senator.

The CHAIRMAN. Do you agree with that statement?

Mr. TURNER. Yes, Mr. Chairman.

The CHAIRMAN. And according to a recent study, and a number of experts in the panel of witnesses that will follow you, the reason why we've been able to maintain the level of catch is that the fishing boats—they're no longer boats—have ranged further and further, as you alluded to in your statement, Dr. Lent, and with the improved capabilities for harvesting fish. Is that correct?

Dr. LENT. That's correct. The technology advancements have been spectacular.

The CHAIRMAN. Mr. Turner.

Mr. TURNER. Yes, sir. I agree, Mr. Chairman.

The CHAIRMAN. Let me ask this, I'm sure you had the opportunity of reading the recent study which has stirred up so much,

perhaps not controversy, but certainly attention to the issue. What are your views—and Admiral, I'll leave you out of this. What are your views, Dr. Lent and Mr. Turner, on that study, a very important contribution, you have some disagreements with it—just give me your general overall impression.

Dr. LENT. Thank you, yes, very quickly, we welcome the increased attention that this article and these types of things bring for all Americans on the challenges of fishery management and fishery science, and we all agree that fishing has an impact on the resource, that we need to increase management. We also appreciate the fact that this problem tends to be more of an international problem than one domestically.

Where we disagree, and where we have debate that we want to see ongoing with the *Nature* article is the degree to which the fish stocks have actually been fished down. We actually want to be about 50 percent of the original stock size for really maximum, optimum sustainable yield.

The CHAIRMAN. Did I understand you to say 50 percent?

Dr. LENT. That's correct.

The CHAIRMAN. Depletion.

Dr. LENT. That's correct.

The CHAIRMAN. As opposed to 70 or 90 percent?

Dr. LENT. This is a rough estimate. When you're fishing a stock to the point where you want maximum sustainable yield, in most cases you're about 50 percent, and I believe the authors would agree with that.

The important thing is that if that goal moves, if we have new data that show us that in fact we can go higher, that's great. It happened in New England, we've adjusted our rebuilding plans, we're still growing. If the goal moves, we'll move to that greater goal. It's a good sign. It means we can actually get more fishing, more jobs, and more income, and more food out of these stocks.

The CHAIRMAN. So you are in agreement with the study, with some questioning about the percentages?

Dr. LENT. That's correct, Senator, in specific cases, and we do have our scientists looking at it, and they are communicating with the authors.

The CHAIRMAN. Mr. Turner.

Mr. TURNER. Mr. Chairman, again I think the attention this year from the *Nature* report, the Pew Commission, we'll look forward to Admiral Watkins' report this fall, and many have certainly raised the attention appropriately.

I think, though I am no marine fisheries scientist, I think where the debate is happening on some of the findings of, say, the *Nature* article are a question on some of the base inventories, going back to the fifties, whether the earliest data on what the base was, and I think there will be a robust discussion of some of those numbers, but the overall finding that fish stock are in trouble I think is certainly legitimate and a welcome finding.

The CHAIRMAN. Isn't the experience we had with the cod, isn't that some kind of a warning sign of what could happen to other species of fish which are perhaps less identifiable, like the tuna and others that we could reach a crisis point pretty quickly? Mr. Turner.

Mr. TURNER. Oh, I think definitely so. There are some successes out there. I think the Alaska fishery is in pretty good shape. Pacific tuna seem in reasonably good shape. Thanks to the management scheme we are at least cautiously optimistic. Atlantic swordfish may be rebounding some, and the same with yellowtail flounder, so there are some positives out there, but the cod, the crash of that resource should be a reminder to all of us how fragile and how quickly you can take down what was once thought a boundless resource.

The CHAIRMAN. Well, it seems to me that if, in line with my first questions to you, that if, within the United States and the areas that we have specific control over we're doing pretty well, we could do a lot better, but we're certainly not in an emergency situation, as some allege in other parts of the oceans of the world, then it seems to me our challenge is to pursue international enforceable agreements. Have we done anything more in that area, Dr. Lent and Mr. Turner?

Dr. LENT. Mr. Chairman, as we point out in our testimony, we have made a lot of progress. We have new agreements that are recently negotiated. We've got virtually all of the oceans covered. The one area that's missing is the seamounts issue, because even though we've got the oceans covered with regional fishery management organizations, those are mostly for pelagics, the tunas and the swordfish and the billfish, so we have a couple of meetings coming up this year focusing on the seamount fisheries. We'll need to look at that. Again, room for progress in all of these agreements.

The first step is get an agreement and get management recommendations, enforce them, get compliance. I think we're making progress.

The CHAIRMAN. Well, I hope that the Commission, headed by Admiral Watkins, might come up with some specific recommendations for a framework to get additional international agreements.

Life is anecdotal, but I hear from everywhere that fishing is not what it once was. Don't you hear the same thing, Admiral?

Admiral COLLINS. Yes, sir, but it depends where you are and what fish stock you're talking about, Mr. Chairman. I think there are a couple of models out there that are shining examples of how we can be effective. Senator Stevens mentioned high seas driftnet and the challenge. I think that's a model of success, because it involves those four ingredients that I talked about.

If you go through that issue and you can see that we have been aggressive on all four of those categories, for example, we have a North Pacific Anadromous Fish Commission that has been very, very active between China and Japan, Russia, Canada, and ourselves. We've worked very, very closely, and it's the only regional fisheries management organization scheme that specifically addresses enforcement agency interoperability as part of the game plan.

It calls for, like, an annual planning meeting. It talks about how we're going to deal with this operationally on an enforcement basis. We plan out surveillance aircraft hours. We plan out who's going to be the response vessel if we sight one of these things, and basically we've driven them out of business, and it will be through a very, very—use of technology, joint operations, a strong regulatory

regime and presence, and we've been very, very, very successful there, so I think there are some best practices-type of experience that we can use and try to import to other places.

The CHAIRMAN. Thank you.

Senator Stevens.

Senator STEVENS. I really think that the problem that we've got is to look at the size of the boats and the management of the boats to try and see how we can find some means to bring about some internal discipline in the fleets. Admiral Collins, have you looked at the ownership and management of these boats from the point of view of the global economy? Isn't the control concentrating in about two or three different countries in the world over the total fleet that's out there, the big boats?

Admiral COLLINS. Yes, sir. We haven't done an exhaustive study on that, but clearly, you know, the distant fishing nations in terms of the Pacific, which I'm most familiar with, the distant fishing nations in the world are clearly the big players. China, Taiwan, Korea and so forth have far reach and far impact and large fleets, and that's the challenge of the U.N. fish talks agreement and the western enforcement, is that we have noncontiguous EEZs to worry about, places like Palmyra and Johnston Island and Baker Island and so forth, spread all over the Pacific, 1.8 million square miles alone in those areas, and we've added through the fish stocks agreement responsibilities to enforce on the high seas, so that drives it up over 20 million square miles of area. It's a huge challenge, given the vastness and the far reach of some of these major fishing nations, many of which have not signed the fish stocks agreement.

Senator STEVENS. Well, the experience we've had in the North Pacific, where we've had violations, has been with rogue nations that come in with vessels that are not subject to any agreement, and your people have had to seize them and we've had to pursue them. It just seems to me that what we ought to do is, we ought to try to find some way to bring about an international registry of vessels and to put transponders on all of them with identification so we know where they are and who they are, and that we keep track of the landings, find some way to find out where this fish is being brought ashore, whether it's processed at sea or on shore.

The difficulty is, as I think so many people think the fishing is being done by the coastal nations in their area. It's my feeling that the fleets of the world are so large now that many of them are registered in one country, operate in another, and have the profits going to another, and it's really difficult to get a hold of.

Did you ever read that little book, Mr. Turner, on cod, how cod changed the world? It's a very short little book, but it really demonstrates how the British and others followed cod around the world, so it's not a new process, is what I'm saying. This has been going on for centuries. The difference is the efficiency of the vessels now, and the fact that they now can stay at sea forever.

Mr. Chairman, when we first brought about the 200-mile limit, I'd taken a flight from Kodiak to the Pribilof Islands and encountered some 90 factory trawlers that were there year-round, and they were not subject to our laws. They were not subject to any kind of conservation commitment. They were not subject to any

kind of, really, protection for any species. One of them actually had a big grinder like a big garbage disposal in the center of the deck, and everything was pushed in there and ground up and made into fishmeal.

The world has a 200-mile limit now, but most nations don't enforce it, do they?

Mr. TURNER. Senator, your observation on the size of boat relates to the capacity issue, and it's a vital one. Some of the things that are going on as we wrestle with that difficult one, the FAO is looking at a plan of action on the capacity question. We are working with, especially developing countries on what the protocol is and the tracking and the behavior of flags of convenience, where many of these flagging states need to do a better job of controlling and monitoring and enforcing good practices on the ships.

Another issue is the subsidy issue, and the United States has tackled that directly with cooperation we're getting from USTR and the Department of Commerce through the WTO and others, and then some of the management regime are instigating new tracking mechanisms to track vessels that have a record of IUU, or fishing outside of boundaries or regulations, and I think that will improve, and then we need to help these developing countries.

We have countries that depend on proteins for indigenous people and so forth, where big fishing fleets are covering up the names of their boats and going right in along shore and just mining the bottoms of these countries in violation of all international law. These developing countries quite often don't have the patrol boats or the capacity, so working with the Coast Guard and others, the FAO, we're trying to do training and capacity-building in developing countries that really get preyed upon by some of the big fishing fleets around the world. It's one of our focuses.

Senator STEVENS. I see my light's on, but I had in my office just the day before yesterday a group of people who are willing to put those transponders on any vessel at a cost of $3 a day, but if you look at the number of vessels out there, the question is, who is going to pay it? It's going to be the United Nations, or it's going to be the U.S., and how do we really get to the concept of enforcement and reporting? Once we know where they are, of course we can start tracking them and comparison of the depletion of particular types of species, but it's going to be a monumental task. I look forward to working with all of you. I think it's a challenge for the United States to try and convince the world that the concept of overfishing has to be stopped. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you. Senator Lautenberg.

STATEMENT OF HON. FRANK LAUTENBERG, U.S. SENATOR FROM NEW JERSEY

Senator LAUTENBERG. Thanks, Mr. Chairman. This hearing is extremely opportune from a timing standpoint, because the news that we get about fishing stocks and the disappearance, or at least the endangerment of species is so evident, just from the front page news stories. Mr. Chairman, I want to put my full statement in the record.

The CHAIRMAN. Without objection.

Senator LAUTENBERG. But I would just like to extract a little bit from my statement that outlines the problem for me. When I look at the National Research Council figures suggesting the total biomass of fish and invertebrates harvested or killed each year probably exceeds 110 million tons a year, and we know that that figure exceeds what could be a maximum sustainable catch at 100 million tons a year. What puzzles me is that we're looking at a supply of nutrition and substance for so many people, and this is like someone eating a meal until your cheeks can't hold any more and then wondering how you're going to feed for the next day and the next week.

I'm interested casually as a fisherman, as someone who goes to the sea a lot in a boat. I know that from the coast of New Jersey, which is in a key location for fishing activity, that the fishermen, the recreational fishermen have to go out further and further and further to bring back any fish, and so it is with the commercials as well. When I see the technology, and you see the ships that are being built for fishing at a cost that says that ship has to operate 24 hours a day in order to try and make a return on investment. What they do is, they come in, turn over crews, get rid of their load, and some of them load off into other factory-type ships and go back in and refresh the crew and go out again.

These huge rigs are just raking the bottom. It's not skimming, it's raking. They take up just about everything that grows, and I wonder what we can do in terms of enforcing international agreements. I look at what happened with rockfish, or striped basses they're called, and they were in serious condition in terms of the numbers of fish, and their principal breeding place I guess is the Chesapeake, and we stopped the fishing. It was a good piece of legislation here. We stopped them from fishing the small size, and now there's an abundance of the fish.

Bluefish, for instance, which were so plentiful it was hard not to catch them, are harder to find, and cod, halibut, blue marlin, I mean, these things that were here in such prolific quantities that you didn't have to have any skill to catch them, and you could bring them home for lunch, dinner, family, et cetera. So we're chasing the fish, and one doesn't have to be a rocket scientist or a marine biologist to understand that there are fewer fish. Senator Stevens, when the Japanese put out a 60-mile line, a longline, trailing behind fish, I mean, they're taking all kinds of stuff out of there. I don't know how many hooks, but there are thousands of hooks.

[The prepared statement of Senator Lautenberg follows:]

PREPARED STATEMENT OF HON. FRANK R. LAUTENBERG,
U.S. SENATOR FROM NEW JERSEY

Mr. Chairman, I thank you for convening today's hearing on Global Overfishing.

Today in the United States there is growing concern over the effect of over-fishing on the ecological health of our oceans and the economic health of our coastal fishing communities. Globally, fishing is an especially important source of revenue and food in developing countries and, in fact, 65 percent of the world's catch in 1993 was from developing countries. In 1996 fisheries products directly provided about 14 kg of food for each person on the planet. Simply from an economic perspective, fishing is an economically important international industry, with first sale revenues of approximately $100 U.S. billion per year for all fishery products according to the National Research Council.

Mr. Chairman, we are seeing storm clouds on the horizon. Dr. Myers research suggests that we have only 10 percent of all large fish—both open ocean species such as tuna, swordfish, marlin, and the large ground fish such as cod, halibut, skates, and flounder left in the sea. Yet on May 13 of this year the National Marine Fisheries Service announced that North Atlantic Swordfish is no longer being overfished and swordfish stocks are almost fully rebuilt. Who is right?

Mr. Chairman, the health of these stocks of large predatory fish has enormous ecological implications for marine species. We already know that removal of large predators from an ecosystem results in long term disturbances all across the board.

There are other signs of trouble. In recent years global marine catches appear to have reached a plateau of about 84 million metric tons per year, although total fish production has increased because of new investments in aquaculture. National Research Council figures indicate that the total biomass of fish and invertebrates harvested or killed each year by ocean fishing probably exceeds 110 million tons per year. Mr. Chairman, this 110 million ton figure is extremely important because many scientific estimates of the long-term potential catch of marine species are at about 100 million tons per year. *This suggests that the total mortality of marine species is at, or near, the maximum sustainable level.* Our state of knowledge about these matters is not perfect, that is why the Sustainable Fisheries Act is based on precautionary principles. The question is. . .are we taking enough precautions to ensure the sustainable use of our ocean resources, or is it full-speed ahead into the dark!

Mr. Chairman I look forward to hearing from the witnesses today to learn more about the global over-fishing problem and hear their recommendations for solutions to this global crisis.

Senator STEVENS. Will the Senator yield? They've got one double tow where they've got a net that long and two boats pulling it.

Senator LAUTENBERG. Yes, and the catch is devastating, including the bycatch, just everything that swims.

So it's a worrisome thing. The one thing that I've seen, and I know it's true across the country, is that if we reduce the pollution in the water, reduce the fishing, then nature takes over. We see now in rivers around New Jersey and even in New York they're starting to see stripers are coming back in. They even see some Atlantic salmon. They're probably excessively mercurized, and I wouldn't suggest eating them. How many actions, Admiral, have been taken to curb illegal fishing inside and outside the United States exclusive economic zone? What percentage of known or suspected illegal fishing actions does that figure represent?

Admiral COLLINS. Our major—there are four major areas that we have concentrated, primarily concentrated on in terms of stopping intrusion into our EEZ or a boundary line type of a scenario, the Bering Sea and the Western Pacific area, and Mexico, the boundary line with Mexico, and the New England fisheries and the boundary line with Canada represent the four areas where we, if we're going to have a cutter available to do fisheries in those four areas, that's where he's going to go.

We have particularly put a great deal of emphasis, and it's a risk-based allocation of our resources with particular attention to the maritime boundary and the Bering Sea. We have managed our stocks very, very well, Russia not so well, and there's incredible pressure for Russian boats to come over the boundary line and fish in our waters, so we have maintained, even in the face of homeland security pressures on our resource base, we have maintained at a minimum a one-ship presence up in the Bering Sea with a helicopter-equipped cutter to enforce the boundary line.

Now, that's quite a challenge because it's a 1,700-mile boundary line. It's the distance from Miami to Boston, vast resources, and a

one-cutter presence is a challenge, but we have been consistent. We've had a number of seizures. We've got the message across. We're going to be again—it's about 4 or 5 months out of the year that that's a primary area for concern, and we're going to be there all the time and exerting as robust a presence as we possibly can, relative to that enforcement regime.

Senator LAUTENBERG. Mr. Chairman, the Coast Guard's been a favorite part of our Government for me, and we always ask them to do more with less. We'll find another activity for you, Admiral Collins, I guarantee you, to pull your ships into another direction.

Can I ask this one question?

The CHAIRMAN. Sure.

Senator LAUTENBERG. Do you have the data, Dr. Lent, Mr. Turner, about how much of our fishing depletion, the fish supply depletion, is caused by not fishing, but by other things like pollution, and abuse of the waters?

Dr. LENT. We have some information on that. For particular species such as Pacific salmon, particularly endangered Pacific salmon, habitat is probably the biggest part of the problem we have had. We've taken care of the overfishing. We are looking at habitat very closely. We have a new habitat mandate under sustainable fisheries. We don't necessarily have an easily quantifiable number, but where habitat plays a role it is certainly front and center in our fishery management.

Mr. TURNER. Senator, I'd just like to comment. I think your observations that the issue of fishery depletion goes far beyond the take of fish, fishery and the fishing practices. We simply have to do a better job of sustaining the habitat, whether it's the estuaries like Chesapeake Bay or coral reefs or whatever.

The United States did, with many partners, launch what we feel is an integrated oceans model approach at the Johannesburg summit last September. We're going to road test that with a lot of partners, including agencies here at the table, in the Caribbean, where we're going to look at everything from land-based pollution and waste treatment to forestry practices and agriculture practices and development along the coastlines all the way out to how do we husband the fishery in the reef. We call it our white water to blue water initiative, and if it works, we hope to take it elsewhere in the world.

Senator LAUTENBERG. Excellent. Mr. Chairman, my commendation to you. We manage to not only get useful data here but interesting, as well. I thank you for your persistence in getting to these problems. Thank you.

The CHAIRMAN. Thank you, sir.

Senator Stevens, do you have anything?

Senator STEVENS. No further questions.

The CHAIRMAN. I thank the witnesses, and after the Watkins Commission meets we'll probably be wanting to talk to you again. I think that would be an appropriate time for this Committee to consider whatever legislative recommendations or other recommendations that they might make, and I thank you for being here today.

Dr. LENT. Thank you.

Mr. TURNER. Thank you.

Admiral COLLINS. Thank you, Mr. Chairman.

The CHAIRMAN. Our next panel is Dr. Ransom Myers, the Killam Chair of Ocean Studies, Dr. Richard Ruais, who is the Executive Director of the East Coast Tuna Association, Ms. Lisa Speer, Senior Policy Analyst of the National Resources Defense Council, and Dr. Patrick Sullivan, Assistant Professor at Cornell University.

Welcome, and we'll begin with you, Dr. Myers. Thank you, and thank the other witnesses for being here.

STATEMENT OF DR. RANSOM A. MYERS, KILLAM CHAIR OF OCEAN STUDIES, DALHOUSIE UNIVERSITY

Dr. MYERS. Thank you, Mr. Chairman. It's an honor to be here.

Last month, my coauthor and I published a paper in *Nature* where we attempted to examine all cases in the world where we could go back to the beginning of industrial fishing both on the continental shelves and in the open ocean. Let me show you this plot to give an example of the spread of long-line fishing worldwide.

In 1952, MacArthur, who was running Japan at the time, allowed the Japanese long-liners outside of the area around Japan if they agreed to keep good records. It is these records we used to examine long-line fishing. The red means there's an incredible amount of catch per area. Catch rates are incredible, 10 big fish or more per 100 hooks. When you think about putting in 100 hooks and getting 10 tuna and marlin, plus many sharks, it's a really amazing catch.

By this time the depleted area around Japan—and the only area of high catch rates was this ring of red around it, and as time progressed, in 1958 you'd eliminated the high catch rates in the Pacific here, and the only areas of red is here in the Indian Ocean, way out here, so the areas where they were originally high is now low, and the red represents this spread of long-lining, leaving behind very low catch rates and depleted abundance.

And as you see here, we've skipped over to the Atlantic, getting phenomenally high catch rates, particularly of bluefins, and these represent huge—and just a few years later, the rate, the catches have been reduced down to very low levels by 1980. In fact, by 1970 the world is blue in terms of, we've reduced the big fish in the world's oceans by a factor of 10. That is, there's roughly 10 percent left. Whole areas of the ocean has been abandoned. This area that used to have these enormously high catch rates off of Brazil abandoned, it's not even worth fishing there any more.

And by 1970, when the ICCAT assessment, International Commission for the Conservation of Atlantic Tuna assessments, from 1970 when depletion had already occurred, bluefin tuna was estimated to be 10 times the abundance presently, so the rest of Atlantic tuna is now one-tenth of what it was in 1970, but in 1970 it was already tremendously depleted. Fish that used to migrate into U.S. waters from this area, from Brazil, had been eliminated from these large areas of the Atlantic Ocean and from the North Sea.

The CHAIRMAN. Why do we not have anything from 1990 or 2000?

Dr. MYERS. Oh, I just—because I have it on my movie, but it was difficult to show the movie here.

The CHAIRMAN. I see.

Dr. MYERS. I mean, I just—after 1970, things don't change very much, because there's relatively low catch rates worldwide.

The CHAIRMAN. I see.

Dr. MYERS. It's just basically, we have a movie that's lots of action in the beginning, and then by 1970 it's very boring, because there's not many fish left on a comparative basis.

We did the same thing for the continental shelves from the Grand Banks of Newfoundland to the Gulf of Thailand to Antarctic islands, where we had surveys on the continental shelves that went back to the beginning of time, beginning of industrial fishing, and the purpose was, it was motivated by when I was young, traveling in Africa, after growing up in Mississippi, by the way—too bad Senator Lott isn't here—the incredible abundance and diversity in the Serengeti plains greatly impressed me, and has also greatly impressed me outside of the Serengeti you just had just such devastated landscape with goats eating dirt, and my motivation for doing the study was to see what the oceans looked like before we devastated it, and the difference is really, truly astounding.

OK, now what are the consequences of this study? There are two, primarily. We can vastly increase the yield, the catch, by reducing fishing mortality, as has been done in Alaska, for example. The magnificent Magnuson-Stevens Act allowed Alaska to increase the abundance tremendously, and to increase the catch, so we can do economically much better by fishing less and allowing the stocks to rebuild, and this is on a worldwide scale.

Number two, and I think more importantly, present fishing practices will eventually drive sensitive species such as sharks, some of the turtles, some of the long-lived species like perhaps bluefin tuna or blue marlin extinct simply because they're being caught at rates that are simply unsustainable.

In January, my students and I published extensive analysis in the journal, *Science,* where we looked at hammerhead sharks, thresher sharks, white sharks, and basically all the sharks, large sharks caught in this big area of the Northwest Atlantic here, and we found that the larger sharks like hammerheads, threshers, and great white sharks had been declined by 80 percent in 15 years, and if we go back to the U.S. surveys carried out by the Bureau of Fisheries in the 1950s, we find that in the Gulf of Mexico, oceanic white tips, formerly the most abundant there, their spawning females are now 1,000th of their abundance that the U.S. Bureau 1950s survey showed that were there, so the sharks worldwide, many of the large sharks will go extinct under present fishing practices.

When we say 10 percent of the community is decreased, that means that certain species, certain species are decreased much, much more, and present fishing practices will drive these sensitive species to extinction, and ICCAT and these international management agencies now do not assess these sharks, which are the prime species. The one reason why we had success in Alaska is that sensitive species, Pacific halibut, for example, were examined. They're fished in such a way as not to drive those to extinction. They get good commercial harvests from those.

So those are the two main points, and this question of extinction of the sharks is, I think, a vital question, and my 6-year-old son

really likes hammerhead sharks, and he's told me to pass on the word that these are not allowed to go extinct, and present fishing practices—present fishing practices will, and in fact in this area, unless we reduce fishing mortality, that is, the number of hooks and the number of deaths caused by long-lining, by at least 50 percent, my calculations show—and I'm right—that they will go extinct in this region under those pressures, and this is worldwide.

If you look at data for Thailand, for Argentina, for Australia, for Italy where I have my students working, the same pattern occurs worldwide, so this is a worldwide phenomenon. We have a chance now. It's early enough that we can stop this worldwide extinction just as we stopped the extinction of the great whales, and no one involved in those decisions to stop the whaling worldwide is sorry for being involved. Their children are proud of them, and your children and grandchildren will be proud of you if this worldwide threat to the sharks can be stopped.

[The prepared statement of Dr. Myers follows:]

PREPARED STATEMENT OF DR. RANSOM A. MYERS, KILLAM CHAIR OF OCEAN STUDIES, DALHOUSIE UNIVERSITY, HALIFAX, NOVA SCOTIA

Mr. Chairman, members of the Committee:

My name is Dr. Ransom A. Myers. I am a quantitative fishery population biologist by training and experience. I received a B.Sc. in Physics from Rice University in 1974, a M.Sc. in Mathematics from Dalhousie University in 1981, and a Ph.D. in Biology from Dalhousie University in 1984. Between 1983 and 1997, I was employed as a research scientist for the Canadian Department of Fisheries and Oceans. In 1997, I was awarded the Killam Chair in Ocean Studies at Dalhousie University, which is an endowed research professorship. My specialty includes the population dynamics and management of marine fish and invertebrates.

I have published over 100 refereed scientific papers and six book chapters in my area of expertise. I have served on a number of commissions and committees that were established to study the population dynamics of marine organisms. These include the Board of Directors of the Ocean Institute of Canada, the NOAA review of the International Whaling Commission's Revised Management Procedure, and the Methods Working Group of the International Commission for the Exploration of the Sea. I am presently supervising 10 graduate students working on population dynamics of marine species.

State of World's Fish Stocks—Only 10 percent of Large Fish in the World's Oceans Remain

Last month we published an article in the scientific journal *Nature,* describing the results of our research on the global decline of large fish due to overfishing (see attached). Our major finding is that we have only 10 percent of all large fish—both open ocean species (tuna, swordfish, and marlin) and large groundfish (cod, halibut, skates, and flounder)—left in the sea. Our study shows that industrial fisheries take only ten to fifteen years to effect this change.

Since 1950, we have rapidly reduced large fish populations between the tropics and the poles to less than 10 percent of what they were. Their depletion not only threatens the future of these species and the fisheries that depend on them, but it could also bring about a complete re-organization of global ocean ecosystems, with unknown consequences.

For this study, I spent 10 years assembling data sets representing all major types of fisheries in the world. We used data from scientific surveys for the continental shelves and data from pelagic longlines, the world's most widespread fishing gear, for the open ocean, which cover all oceans except the circumpolar seas. These longlines catch a wide range of species in a consistent way over vast areas. Whereas longline fishers used to catch 10 fish per 100 hooks in many areas, now they are lucky to catch one.

Large fish are not only declining in numbers, but with intense fishing pressure they can never attain the body sizes they once did. Where detailed data are available, we see that the average body size of these top predators is less than half of what it was in the past. For example, the few blue marlin that remain today reach

one fifth of the weight they once did. In many cases, these fish are under such intense fishing pressure that they never have the chance to reproduce.

Recovery requires a substantial overall reduction of fishing mortality (the percentage of fish killed each year). This includes reducing quotas, reducing overall fishing effort, cutting subsidies, reducing bycatch, and creating networks of marine reserves. I believe that a *minimum reduction of 50 percent of fishing mortality* in the world's pelagic longline fisheries may be necessary to avoid further declines of particularly sensitive species such as large sharks. Even greater reductions are required to obtain the Maximum Sustainable Yields. Once stocks are restored to higher abundance, we could get just as much fish out of the ocean with only ⅓ to $\frac{1}{10}$ of the fishing effort. Fishers and communities who depend on these resources would see substantial benefits in the long run.

Although the rapidity and extent of the decline is shocking, our results were not surprising to marine ecologists and fisheries biologists who are familiar with overexploited marine ecosystems. Analyses carried out by Dr. Daniel Pauly (University of British Columbia) using a modeling approach in the North Atlantic, and by Dr. J. Jackson of Scripts Institute of Oceanography using historical data from coastal regions, have come to similar conclusions: the present biomass of large fish in the oceans is only a small fraction of the pre-exploitation biomass. The analysis we published in *Nature* is consistent with, and independent of, these assessments.

The conclusions of our analysis would not be so shocking if it were not for the problem of shifting baselines. This is the problem whereby our conception of what is natural in marine ecosystems reflects only the recent state of the system, in which many species are at historically low levels of abundance. Thus we lose sight of the true magnitude of many declines. Here are some examples of marine species whose true declines have been obscured in part by the problem of a shifting baseline:

1. Atlantic halibut, which once supported a very valuable fishery in New England, is now all but extinct in this region.
2. Before European settlement, there were more green turtles in the Caribbean and the Gulf of Mexico than there are now wildebeests in the Serengeti. The remnant populations of this species are now only a very small fraction of what they were.
3. Atlantic bluefin tuna (and hence its fisheries) has been eliminated from over half its former range (populations in the south Atlantic and in the North Sea are gone). Production from this valuable species is thus only a small fraction of what could be achieved.
4. Swordfish were once harvested in great numbers using harpoons close to shore between Long Island and northern Nova Scotia.
5. Even before 1900, once abundant Atlantic salmon had been eliminated from southern New England rivers, and this species is now virtually extinct in the Northeast.
6. The great cod stocks of Newfoundland and the Grand Banks have been declared Endangered by the Canadian government.
7. On the west coast, valuable abalone populations have been eliminated in many areas, and show little, or no, sign of recovery.

We must recognize that fishing is a strong agent of ecological change that has altered our marine ecosystems through many population collapses and extirpations. It is critical that we do not allow our perception of what is natural in our oceans to foster complacency about these losses.

Consequence 1 of our study: Fisheries Yields Can be Greatly Increased by Responsible Management

Our study clearly shows that most fisheries in the world overexploit to the point that they produce only a small proportion of the potential fisheries yield. Recovery through responsible management is possible.

For example, the increase in catch by the fishermen of New England is clear evidence of what improved management can do. Although by the early 1990s in New England, fish stocks had been reduced to less than one-tenth their original levels, reduced fishing and the use of closed areas have been used to rebuild the stocks by 150 percent. According to the National Marine Fisheries Service, however, they still require rebuilding by another 400 percent of the present levels to achieve Maximum Sustainable Yield. They predict that this increase will result in a significant increase in fisheries yield (personal communication, Dr. Steven A. Murawski of NMFS, Woods Hole). Scallops have increased in the area with limited fishing on Georges Bank by an extraordinary 22 times in only 6 years. The experience on

Georges Bank clearly shows what can be achieved with appropriate management; in many cases, *e.g.,* scallops, the results may exceed the predictions of both scientists and fishers. Nevertheless, more than half of the fish stocks in the region remain overexploited and the NMFS estimates that the aggregate groundfish biomass needs to increase by 3 times.

Unfortunately, many species will take a long time to recover, particularly those that take many years to mature. It will be many years before bluefin tuna, Atlantic halibut, or Pacific ocean perch return to levels where they can produce maximum sustainable yields.

Consequence 2 of our study: Present Fishing Patterns Will Result in the Eventual Worldwide Extinction of Many Large Marine Species—in Particular Sharks

Overexploitation threatens the future of many large vertebrates. Many species of tuna, sea turtles, and seabirds are now conservation concerns because of intense fishing pressure. My students and I have recently demonstrated in a paper published in the journal *Science* that many shark populations off the eastern U.S. coast have undergone rapid and large declines. Populations of hammerhead, great white, and thresher sharks have each declined by about 80 percent within the last 15 years. Recently my students have extended this analysis back to the start of commercial longline fishing using surveys carried out by the U.S. Bureau of Fisheries in the Pacific, the Gulf of Mexico, and the eastern Atlantic. In all cases we found that the shark populations were at a small fraction of their original abundance. In an extreme case, we found that the number of spawning female oceanic white tip sharks in the Gulf of Mexico is one thousandth of their initial abundance. This is alarming because this was once the most common pelagic shark in the region. Other researchers have found similar results around the world.

I believe that the present global situation of sharks parallels the situation of whales forty years ago. In both cases, fishing was threatening the viability of future populations of large marine vertebrates. When the analysis of the state of the world's whale populations was first presented forty years ago there was extreme resistance to changing management policy. However, effective management action was taken, and the whale species of the world were saved. Effective management action is now needed for sharks.

Overexploitation of sharks occurs in almost every area where they are fished, because sharks have little resilience to fishing pressure (they have few young and require many years to reach maturity), and because of a lack of sensible management. Overexploitation often occurs because sharks are caught in multispecies fisheries in which the target species are much more productive than the shark species. This phenomenon occurs in the pelagic longline fishery which targets the much more productive tunas, and even in the bottom longline fishery on the southeastern U.S. coast which targets more productive shark species at the expense of less productive ones. The overexploitation of sharks is an example of a very general phenomenon in multispecies fisheries, whereby the most sensitive species become quickly overfished, while the more productive species continue to drive the fisheries.

State of U.S. Fish Stocks

There are examples of well-managed fisheries in the United States. Alaska, in particular, stands out in comparison to international standards. A key management policy that was followed in Alaska, and is seldom effectively used elsewhere, is that they managed the multispecies fishery so that no single species was overfished, even though this meant that the biomass of some species was kept at a higher level than required to produce Maximum Sustainable Yield. In particular, this management policy aimed to prevent overharvesting of Pacific halibut, a species that is very valuable but also very sensitive to fishing pressure. This allowed fishing mortality on the whole community to be kept at sustainable levels. In contrast, in New England and eastern Canada no such management policy was in place, which resulted in the virtual commercial extinction of Atlantic halibut, and the eventual overexploitation of all the groundfish stocks. The present management policy for New England has resulted in a partial recovery of groundfish stocks, something that Canada and Europe have not been able to achieve. The partial recovery in New England is a great achievement. However, it is crucial that the groundfish stocks in New England be allowed to fully recover to the point where they can provide the much larger yields that they are capable of producing. Unfortunately, the partial recovery in New England is not typical of most U.S. fisheries.

More typical are cases like the red snapper in the Gulf of Mexico, where fishing mortality has not been reduced despite continued scientific advice, or the top predators on the coral reefs of the main islands of Hawaii which are at only 1.5 percent

of virgin levels according to a recent U.S. Fish and Wildlife study. Much work is still required on U.S. fisheries management to improve the productivity of marine populations.

Improving U.S. Fisheries Management

U.S. fisheries management has begun to accomplish something that few other countries have done; it has increased abundance and yield of an overexploited, overcapitalized fishery, *i.e.,* the New England groundfish fishery. However, this progress has been slow, and was largely forced through court action. There are continuing legal fights to improve the management in many U.S. fisheries. On the west coast there is still management by trip limits for the groundfish fishery, which often forces fishers to discard large amounts of valuable fish in order to stay within the regulations. That is, there are regulations that effectively force fishers to act in a dishonest manner in order to keep fishing. In other fisheries there has been little progress, in spite of strong scientific evidence that management actions need to be taken. For example, it is very clear that the Gulf of Mexico red snapper fishery could produce much more yield, but little effective action has been taken.

In many cases, there is strong, short-term pressure to stabilize fish populations at low biomass levels (often as low as 10 percent of the unexploited levels), rather than to take the necessary management actions to initiate population recovery.

Perhaps the single most useful change in fisheries management would be a rethinking of the way scientific advice informs management decisions. Under the present system, careful scientific analysis that clearly will result in improved fisheries yields in the long term is not acted upon by the regional councils. Further improvements in fisheries management require that managers act upon the results of careful scientific analyses. Currently, scientific advice is often ignored by regional fisheries management councils for short term political objectives.

One problem of the current system is that uncertainty in the status of fish stocks can result in risk-prone management strategies, rather than risk-averse strategies. For example, in eastern Canada, fishing continued on cod stocks to the point where a resource that had employed tens of thousands of fishers, and produced a vibrant culture for centuries has now been declared Endangered by the Canadian government. On the issue of the great disaster of the Canadian cod, I speak as a scientist whose scientific advice was ignored time after time. For political reasons, fishing continued until one of the world's great biological resources, the Grand Banks cod, was almost eliminated. The setting of scientific advice for fisheries management cannot be allowed to become a political football if long term benefits of a fishery are to be realized.

The U.S. and International Fisheries

There are two areas of marine environmental policy where the U.S. is among the leaders of the world: protection of endangered species and protection of marine habitat. This leadership could be extended to the international arena by three actions:

1. Require protection of all species from extinction by international fisheries management agencies. In particular, sharks worldwide, and leatherback turtles in the Pacific, require changes in law for long term survival.
2. The success of groundfish fisheries management in Alaska (based around protection of Pacific halibut) should be extended to other multispecies fisheries. Adoption of this management approach in the Northwest Atlantic could lead to efforts to recover the once great Atlantic halibut resource, which would force changes in the international management system that would benefit all groundfish species.
3. Require protection of critical marine habitat. As an example, unique seamounts are being destroyed for short term economic gain. There should be a worldwide ban of destructive fishing on all seamounts, especially those in international waters.

The CHAIRMAN. Thank you very much.

Mr. Ruais, welcome.

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

Mr. RUAIS. Thank you, Mr. Chairman. It is indeed a great privilege to provide this Committee with testimony on the critical issue of the U.S. role in international fisheries management.

Obviously, one of the reasons for this hearing is the recent controversy over the *Nature* article by Dr. Myers and Dr. Worm. The fact that this study contributed to this hearing is the only positive contribution to fishery conservation one can find about the study. Their finding of a significant decline in the biomass of large fish from the virgin state over the last 40 years of fishing is essentially irrelevant to the critical business before international and domestic fish managers today. The correct challenge to fishery managers is to evaluate the condition of each stock in relation to the estimated maximum sustainable yield, and then develop fish policies to achieve those yields.

Mr. Chairman, there's a tidal wave of criticism developing in the scientific community over the Myers and Worm analysis, which has already been deemed to be fundamentally flawed. I think you will also find that Dr. Myers is not necessarily in——

The CHAIRMAN. Now, I don't mean to interrupt, Mr. Ruais, but that was not the opinion of the administration witnesses, that they were, quote, fundamentally flawed.

Mr. RUAIS. Well, in my written testimony, Senator, I think I've cited a number of Pacific fishery experts who have reviewed carefully the *Nature* study, and they found it to be fundamentally flawed, and there are substantive works in process to show that it's an oversimplification of catch-per-unit-effort data potentially showing just fishing down of hot spots and other potential problems, but I think the legitimate peer review is—it will take a little bit of time to complete. It's not yet done, but it is taking place, and in my written testimony I think I've cited at least three major pelagic large fish researchers who already are saying some pretty damning things, and I could read some of those quotes if you want. I wanted to spare actually reading some of them for now.

But I think importantly, Mr. Chairman, the Committee needs to know that Dr. Myers' paper was funded by the Pew Charitable Trust and is part of a continuing campaign to create an atmosphere of false crisis in the public mind over the status of our shared high seas and coastal fishery resources.

The CHAIRMAN. Excuse me, the Pew Charitable Trust is part of an ongoing campaign?

Mr. RUAIS. That's correct, Mr. Chairman.

The CHAIRMAN. What evidence do you have of that?

Mr. RUAIS. Well, the study that Dr. Myers did was funded by the Pew Charitable Trust. It's not a secret that they have been maintaining a campaign——

The CHAIRMAN. What evidence do you have of that, that they're maintaining some kind of campaign?

Mr. RUAIS. I believe there's been a number of articles in a number of papers. There's been a number of researchers that have followed very carefully the grant process at Pew, and that they provide money to various researchers to provide fisheries studies that predict doom and gloom, and scare the public away from our fishery resources, Mr. Chairman.

The CHAIRMAN. That's a remarkable indictment of a very fine organization, Mr. Ruais. That is really a remarkable indictment. I hope you have evidence to back that up.

Mr. RUAIS. I believe that we do, Senator.

The CHAIRMAN. I don't think you do, because I've had a lot to do with the Pew Charitable Trust, and I know that that is not the way that they do business.

Go ahead.

Mr. RUAIS. The underlying objective appears to be to further excessively harm commercial and recreational fisheries and the worldwide fish-eating public. Pew's longstanding anti-fishing campaign is needlessly and irresponsibly scaring the public away from healthy fish stocks.

Mr. Chairman, the real truth and news the media should be reporting is that on all coasts of this country in at least the last decade the fishing industry has aggressively pursued innovative and effective remedies to fish resource problems at great industry cost. The real picture is that under NMFS' leaders, Rollie Schmitten and Dr. Bill Hogarth, there's been an unprecedented level of cooperation between the U.S. fishing industry and Government, and great strides have been made to restore many stocks of large and small fish. My written testimony details this considerable progress, as does the latest NMFS status of the stocks publication.

I do want to point out that in particular with the aggressive leadership of our U.S. commissioners to the International Commission for the Conservation of Atlantic Tunas, including our Commercial Commissioner, Glenn Delaney, the North Atlantic swordfish stock has been fully rebuilt in half the time expected. Regarding Western Atlantic bluefin tuna, ICCAT's latest stock assessment shows the largest year class since 1973 of new giant-size spawners are now available to drive the established rebuilding program on schedule.

These successes and others demonstrate that the domestic and international systems are in place for the conservation of our fisheries, and while not perfect, especially in the international context, are working well.

I want to bring to the committee's attention the most critical problem areas remaining in many international organizations such as ICCAT. The problems include the lack of political will among certain nations to support conservation standards, poor compliance records with conservation agreements by some contracting parties, and a continuing problem with pirate fishing on the high seas, as has already been discussed.

In the ICCAT context, the European community, Morocco, and Taiwan stand as countries lacking the political will to conserve. Attached to my testimony, Mr. Chairman, is a very important recent letter from the Secretary of Commerce, Don Evans, to the European community protesting the EU's lack of political will to follow ICCAT's scientific advice on sustainable quotas for Eastern bluefin tuna.

The letter notes that these EU positions have the potential to lead to serious friction in U.S.-EU trade relations. The letter is a breakthrough for the U.S. commissioners at ICCAT, who have long sought action by the administration to pressure the EU. for conservation leadership. The focus on the EU is because, as the largest harvester of nearly all ICCAT species, the EU can either be a powerful international example of resource stewardship, or be a terrible example and an excuse for other countries not to comply.

The letter is a terrific step forward, because it elevates ICCAT into the arena of serious bilateral trade relations and policies.

Mr. Chairman, there are no international fish police to enforce ICCAT measures on the high seas. Instead, the marketplace for these species is the arena for effective enforcement. ICCAT has recognized this, and has adopted what are perhaps the most progressive multilateral trade provisions governing illegal fish produced by member and nonmember nations. Nonetheless, the U.S. continues to provide the world's largest markets for fish taken in contravention to ICCAT rules. The U.S. Government has not been sufficiently aggressive with its current authority to stop this black market. After 10 years of development, the U.S. has sufficient multilateral authority from ICCAT to accomplish two important objectives.

Number one, immediately put into place the requirements, procedures, and funding and manpower necessary to prevent entry into the U.S. of any ICCAT species caught illegally by member or nonmember nations, including fish by the fleet of nearly 200 large pirate vessels, and two, to implement similar measures that will enable the U.S. to use its market to leverage compliance from those nations that do not adhere to ICCAT bycatch requirements such as those that apply with respect to billfish.

And finally, Mr. Chairman, I just want to point out one last opportunity for the Committee to significantly advance the conservation interests of our highly migratory fish, and that is an upcoming EU bilateral trade meeting that's going to be taking place later this month.

Mr. Chairman, I respectfully recommend to the Committee that you and some members insist upon a meeting with these EU officials while they are here, along with the three U.S. ICCAT Commissioners, to discuss EU fish conservation policies. I urge you to ask the EU how they can possibly justify forcing a quota policy for Eastern Atlantic bluefin tuna 6,000 metric tons above the annual level recommended by ICCAT. I can assure you that elevating this ICCAT issue to your high level of attention will unquestionably advance U.S. fish conservation interests.

Thank you very much for the time, and I'm sorry I went a little over.

[The prepared statement of Mr. Ruais follows:]

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

Mr. Chairman, it is indeed a great privilege to provide this Committee with testimony on the critical issue of the U.S. role in international fisheries management. I have been involved with domestic and international fishery management for 25 years, first as staff with the New England Fishery Management Council and since 1991 as Executive Director of East Coast Tuna Association representing giant Atlantic bluefin tuna fishermen who use rod and reel, harpoon and small-scale purse seine vessels in the Northeast. Since 1991, I have participated in every plenary meeting of the International Commission for the Conservation of Atlantic Tunas and participated in the domestic process of developing U.S. objectives and strategies for the Commission meetings.

Obviously, one of the reasons for this hearing is the recent controversy in the media surrounding an article published in *Nature* titled "Rapid worldwide depletion of predatory fish communities" by Ransom A. Myers & Boris Worm. The fact that this study contributed to this hearing is regrettably the only positive contribution to fishery conservation and management one can find about the study and its conclusions. Supported by the Pew Charitable Trust the study is part of a well-funded,

devious strategic campaign with domestic and international components to create an atmosphere of false crisis in the public mind over the status of our shared high seas and coastal fisheries resources. The underlying objective appears to be to further excessively harm commercial and recreational fisheries and the worldwide fish eating public. Pew's directed antagonism towards commercial fisheries is continuing to shift attention away from the ecosystem damages from offshore oil and gas exploration and spills, as evidenced by the sparsity of media coverage of the ecological disaster caused by the Prestige breaking up off the coast of France last year. As recent spills in Narragansett Bay and Buzzards Bay have graphically demonstrated, this is counterproductive to any efforts to insure proper controls to minimize such damage in U.S. waters. The domestic component is being carried out by the Pew Ocean Commission, which has been described as "a self appointed, elitist group with a vested interest in fabricating crisis" (see attached "The Truth About New England's Fisheries")

Mr. Chairman, there is a tidal wave of criticism developing in the scientific community over the Myer & Worm analysis and conclusions which have already been deemed to be "fundamentally flawed" (see attached) by noted Pacific large pelagic researchers such as Dr. John Sibert. Dr. Sibert goes on to note that "Myers and Worm do the fisheries community a disservice by applying a simplistic analysis to the available data which exaggerates declines in abundance and implies unrealistic rebuilding benchmarks." Dr. Gary Sharp (Center for Climate/Ocean Resources Study) puts it more bluntly with:

> "Their (Myers & Worm) meta-analysis as reported is not good science-as exposed by the most recent nonsense . . . presented via *Nature,* stating that all large ocean fish are at 10 percent of historical levels. That statement denies what we know, and the many complexities that are not explained, or even mentioned in an article. The missing bits only show that the authors know nothing about the majority of the fisheries they claim to, nor the knowledge that is available."

Dr. Vidar Wespestad (20 years prior service with Alaska Fisheries Center of NOAA) concludes about the article: "I can clearly state that these views do not hold water in our region, and in fact most of the recently published *Nature* article is erroneous and people truly knowledgeable are writing a rebuttal." There is much more Mr. Chairman but we will let the tidal wave of scientific criticism underway set the scientific record straight over the next several months.

To use a finding that pelagic fish stocks experienced a significant reduction from virgin condition over 40 years ago in an unqualified fashion to scare the consuming public to stop eating healthy seafood (as the notorious enemy of fishermen Pew Trusts has been repeatedly doing) is irresponsible and undermines the incredible amount of international work ongoing to fix existing resource and management problems. Regrettably, the Pew Trusts shamefully ignores the reality that more than half the world's population depends on fish for a significant portion of its food protein.

That it can be shown that the onset of fishing reduces stocks over time in some predictable amount from their pristine condition is not news to scientists or to fishermen. Scientists have long been aware that for many stocks a reduction of at least 50 percent from a virgin "unfished" condition is fully expected in order to arrive at a stock condition where full and sustainable exploitation can take place. As a matter of fact, in an interview broadcast on NPR last week, Myers stated "When fisheries management is used and used effectively, there is not a concern about the biomass reducing by a factor of 50 or even 60 or even probably 70 percent". This is why the Myer and Worm suspect finding of a 90 percent reduction is irrelevant to international and domestic fish managers today, and is simply inconsistent with our actual observations and experience. The correct challenge to fishery managers is to evaluate the condition of each stock in relation to its estimated maximum sustainable yield, and to develop fish policies to achieve that yield.

Mr. Chairman, the real truth and news the media should be reporting is that the fishing industry and its representatives are not in the mode of denying that we continue to have cases of serious resource and management shortcomings domestically and internationally. On all coasts of this country however, and for at least the last decade, the fishing industry has aggressively pursued innovative and effective remedies to fish resource and management problems at great industry cost. The real picture is that under the NMFS leadership of Rollie Schmitten and Dr. Bill Hogarth there has been an unprecedented level of cooperation between U.S. fishing industry and government and great strides have been made to restore many stocks of large and small fish.

NMFS reports that the latest data shows that most U.S. stocks are no longer overfished under increasing regulations required by the Sustainable Fisheries Act and of those that remain overfished greater than 80 percent are recovering. The New England groundfish complex has increased by over 150 percent in the past five years. The New England scallop fishery is now rebuilt. In California, the sardine fishery that Pew Commission Chairman Leon Panetta is fond of referring to was destroyed by unusual weather patterns, not overfishing. The sardines have returned to Monterey Bay and are sustainably managed coast-wide. In Alaska, where fisheries account for about half the seafood landed annually in the U.S., crab, salmon, halibut and groundfish fisheries are being harvested at sustainable levels.

As a consequence of the aggressive efforts and leadership of the U.S. Government and the U.S. longline industry at ICCAT, the North Atlantic Swordfish stock has been fully rebuilt in half the time expected and, along with the South Atlantic Swordfish stock, both are now producing the maximum sustainable yield. Still, Pew-generated media such as the very recent *Washington Post* article is misinforming the public that Atlantic swordfish are seriously depleted and should not be consumed.

Regarding western Atlantic bluefin tuna (the former "poster-child" fish of green groups seeking "charismatic megafauna" for profitable fundraising), ICCAT's latest stock assessment shows the largest year-class since 1973 of new giant size spawners are now available to drive the established rebuilding program to completion and on schedule. In a broader context, the United Nations Food and Agriculture finds that global capture fisheries production is stable with 72 percent of fish stocks are either under, moderately or fully exploited.

Coalitions of fishing industry organizations believe that these successes and others demonstrate that the domestic and international systems in place for the conservation and management of our fisheries, while not perfect especially in the international context, are working well. This is in sharp contrast to what the authors of the *Nature* article, and the Pew-funded media campaign have led the public to believe. For example, largely as a result of outstanding, aggressive leadership by U.S. Commissioners to ICCAT since the early 1990s (and in particular the efforts of ICCAT Commissioners Rollie Schmitten, Dr. Bill Hogarth and Glenn Delaney), ICCAT has been on the cutting edge of developing and implementing legally sustainable international processes leading to sanctions for non-compliance and agreements to address other critical international management infrastructure shortcomings. We welcome any assistance this Committee can render to reasonably speed up the process and eliminate remaining obstacles to effective, efficient and equitable long term conservation and management.

I want to bring the Committee's attention to the most critical problem areas remaining in many international conservation and management organizations such as ICCAT and where substantial improvements are necessary. These include the lack of political will among certain Nations to support generally accepted conservation standards and consequent failure to agree on policies to achieve conservation objectives; poor compliance records with established conservation agreements by some contracting parties and; a continuing problem with illegal, unregulated and unreported fishing (IUU and often referred to as "pirate fishing"). In the ICCAT context, the European Community, North African countries bounding the southern coast of the Mediterranean Sea (in particular Morocco) and Taiwan standout as countries lacking the political will to embrace the responsibilities of conserving our shared highly migratory resources.

I would like to call the Committee's attention to an April 25, 2003 letter (attached) to the Honorable Pascal Lamy, European Community Commissioner for Trade from Secretary of Commerce Donald Evans protesting the EU's lack of political will to follow ICCAT scientific advice on the establishment of sustainable quotas for eastern Atlantic bluefin tuna. The Secretary notes with disappointment that the EU's policy to set bluefin quotas 6,000 mt above the scientific advice for each of the next 4 years "undermines ICCAT's ability to effectively manage Atlantic stocks and threatens the viability of U.S. recreational and commercial fishing industry." The letter also notified the EU that "positions such as these not only threaten the long-term future of our shared marine resources . . . they also have the potential to lead to serious friction in U.S.-EU trade relations".

This letter represents a breakthrough for the U.S. Commissioners at ICCAT who have long sought support and action by the Administration to pressure the EU for more conservation leadership within ICCAT. The Commissioners focus on the EU recognizes that the EU is the most significant harvester in nearly all of the species under ICCAT purview and because of the influence they maintain with North African countries. In this respect, the EU can either chose to set a powerful inter-

national example of resource stewardship or provide a terrible example and excuse for other countries not to comply.

The letter is a terrific step forward because it elevates ICCAT into the arena of serious bilateral trade relations and policy rather then just another fish or environmental issue. Our industries are very grateful to the Secretary and Under Secretary Grant Aldonis and Senior Policy Advisor Sloan Rappoport for the development of this letter. It remains to be seen whether this threat alone will influence a change in EU policies or whether further direct interventions by high-ranking officials within Commerce and State Department and implementation of trade sanctions will be required. We would hope this Committee could find additional avenues to influence further support within the Administration and elsewhere to pressure ICCAT parties for compliance.

I would also refer the Committee to a letter to Mr. John Spencer, Head, Unit of International and Regional Arrangements, EU from Dr. William Hogarth, dated April 23, 2003. This important letter also raises serious concerns about the EU conservation behavior, but this time in the context of consideration by the Secretary of Commerce to certify the EU for "diminishing the effectiveness" of ICCAT pursuant to the Pelly Amendment of the Fishermen's Protective Act. The request for such a certification was made by several east coast governors in support of their coastal and high seas fishermen. If the Secretary were to certify EU under the Pelly Amendment, it could lead to trade sanctions against the EU until they adopt a stronger conservation ethic. This could be an effective tool, but despite a number of certifications made over the years, the U.S. Government has declined to impose actual economic trade sanctions (except in one case). I am afraid there are few in the international community that fear the certification threat. Nevertheless, we are very grateful to Dr. Hogarth for exercising this option as a means to elevate ICCAT issues and increase pressure on the EU.

Mr. Chairman, I must reiterate that within international fora for fisheries conservation, the U.S. is the leading voice for tough conservation standards and measures. We often lead by example, subjecting our fishermen to even greater fishing restrictions than our foreign counterparts. This is clearly the case in our commercial and recreational fisheries for Atlantic swordfish and Atlantic bluefin tuna. But it is also established biological reality that we are responsible for a very small portion of mortality on these stocks and we cannot successfully conserve these stocks unilaterally without cooperation from all of the major fishing nations.

There are no international fish police to enforce ICCAT measures on the high seas. Instead, the marketplace for these species is the arena for effective ICCAT enforcement. ICCAT has recognized this and has adopted what are perhaps the most progressive and aggressive multilateral trade provisions and policies governing ICCAT-illegal fish produced by both member and non-member nations. Nonetheless, the U.S. continues to provide one of the world's largest markets for fish taken in contravention of ICCAT rules and regulations. The reason is that the U.S. Government has not been sufficiently aggressive with its current authority or with its fiscal resources to stop this black market. It is my view, shared by many in our U.S. ICCAT team, that the U.S. has sufficient multilateral authority from ICCAT to accomplish 2 important objectives, each of which would enormously improve the conservation benefits of our achievements at ICCAT thus far, and tremendously strengthen U.S. effectiveness at ICCAT in the future:

(1) to immediately put into place the requirements, procedures and funding and manpower necessary to prevent entry into the U.S. of any ICCAT species caught illegally by member or non-member nations, including fish of Atlantic origin suspected of being laundered through Pacific markets, as well as fish presently harvested by a fleet of more than 200 large pirate vessels; and

(2) to implement similar measures that will enable the U.S. to use its market to leverage compliance from those nations that do not adhere to ICCAT bycatch requirements such as those that apply with respect to billfish. Yet, the U.S. undermines its own efforts by allowing nations that ignore billfish bycatch requirements to openly market their directed species catch such as swordfish and tunas in the U.S. marketplace.

In the interest of having conservation programs be efficient and equitable it is clear to many in the fishing industry and many in government that the fastest and most effective way to improve the international conservation picture is for the U.S. to employ such legitimate trade sanctions against countries undermining the effectiveness of international programs. Those U.S. fishermen sacrificing under the burden of ICCAT restrictions have a right to expect that the U.S. Government will, at least, insure that fish caught in violation of ICCAT programs by contracting parties

or "pirate" IUU fishing vessels not be allowed to unfairly compete with legitimate US-caught fish in U.S. markets.

Another opportunity for this Committee to significantly advance the conservation and management of highly migratory fish in the Atlantic is at an upcoming bilateral meeting here in the U.S. with the EU and, where their top ICCAT officials will be present. Mr. Chairman I respectfully recommend to the Committee that you and some Members insist upon a meeting with these EU officials while they are here, along with the 3 U.S. ICCAT Commissioners, to discuss EU fish conservation policies. I urge you to ask of the EU how they can possibly justify forcing a quota policy for eastern Atlantic bluefin tuna 6,000 mt annually above the level recommended by ICCAT (including European scientists) scientists for the next 4 years. This policy will not produce "stability" as claimed, rather it risks decimation of eastern and Mediterranean assemblages of bluefin tuna many of which are, with certainty, bound for a casual and ordinary trans-Atlantic swim to our coastal waters.

I can assure you that elevating this ICCAT issue to your high level of attention will unquestionably advance U.S. interests and large highly migratory fish conservation. This will particularly be the case if you insure that all three U.S. ICCAT Commissioners are allowed to participate in this designated government-to-government meeting. This designation is occasionally employed by lower level staff, particularly within the Department of State, who may not share NMFS leadership strong resolve to put our best team forward. It is critically important that all three presidentially appointed U.S. ICCAT Commissioners be afforded the opportunity to fully participate.

Finally, there are 2 changes to the Atlantic Tunas Convention Act we believe will strengthen U.S. leadership at ICCAT. The first required change would be to lengthen the terms of the non-government commissioners from the current maximum of 2 to 3 consecutive year terms as is the case for regional fishery council members. We have made this request to the Subcommittee in September of 1999. We note, in particular, that with respect to foreign delegations at ICCAT there appears to be no such term limits and that such continuity can offer strategic advantages at the negotiating table. The job of ICCAT commissioners requires considerable technical expertise and time to master the craft of negotiating with delegations from 32 other fishing nations. As noted earlier, the U.S. currently has an excellent winning team. The arbitrary two-term limit regrettably will break up this team at a crucial time at ICCAT.

The second change would be to, again similar to the regional council system, provide per diem remuneration for the recreational and commercial commissioners while on official ICCAT related business. This would recognize the considerable time and effort required to fulfill the responsibilities and carry out the mandate entrusted to these Commissioners under their Presidential appointments. This change should also make it clear that the recreational and commercial commissioners are official government representatives while fulfilling their ICCAT responsibilities and as such, allow continuous participation in all government-to -government meetings related to ICCAT business. The recreational and commercial ICCAT Commissioners are an essential part of the U.S. ICCAT team and have responsibilities entrusted to them by the President. It is highly inappropriate and counterproductive to keep them in the dark on issues critical to the success of ICCAT.

Thank you Mr. Chairman and Members of this Committee for holding this hearing and for helping to advance the conservation and management of our coastal and shared highly migratory fish stocks.

DEPARTMENT OF COMMERCE
Washington, DC, April 25, 2003

Hon. PASCAL LAMY,
Commissioner for Trade,
European Commission,
B–1049 Brussels, Belgium.

Dear Commissioner Lamy:

I believe that the conservation of marine fisheries is of the utmost importance, for both commercial and environmental reasons. Although I am sure that the Commission generally shares this view, I am writing to express my serious concerns with the actions taken and positions adopted by the EU and EU member states with respect to the conservation of the migratory species covered by the International Convention for the Conservation of Atlantic Tunas (ICCAT). I also want to emphasize that the repercussions reach beyond concerns solely with the environment, as

is often the case with fishing issues, because they have a direct effect on trade as well.

In particular, I am concerned that overfishing by EU member states is reducing stocks of ICCAT species below sustainable levels. Specifically, I was extremely disappointed that ICCAT agreed to an EU delegation proposal to set the Total Allowable Catch for Eastern Atlantic bluefin at 32,000 metric tons, which is 6,000 metric tons above the cap recommended by ICCAT's scientific advisory body. Support for such proposals undermines ICCAT's ability to effectively manage Atlantic stocks and threatens the viability of U.S. recreational and commercial fishing industries.

Positions such as these not only threaten the long-term future of our shared marine resources, but, as I noted, they also have the potential to lead to serious friction in U.S.-EU trade relations. In September 2002, the Recreational Fishing Alliance, an organization representing the U.S. sport fishing industry, filed a petition under Section 301 of the Trade Act of 1974 to address allegedly unjustifiable acts, policies and practices of the EU related to ICCAT. The 301 petition also alleged that EU subsidies to its fishing industry through the Common Fisheries Policy and its funding mechanism, the Financial Instrument for Fisheries Guidance (MFG), are actionable under the WTO Agreement on Subsidies and Countervailing Measures. Although the Recreational Fishing Alliance withdrew its 301 petition prior to the October 2002 ICCAT meeting, it has expressed its intent to re-file the petition if its concerns are not addressed.

The EU is a world leader in supporting protection of the global environment and the sustainable use of natural resources. In the case of Atlantic fishing stocks, however, it appears that the actions and positions of the EU and its member states are at variance with these goals. I would like to work together with you so as to make ICCAT an effective steward of our shared Atlantic fisheries, and to prevent this issue from becoming another bilateral trade irritant. To that end, I urge you to take prompt action to improve EU compliance with existing ICCAT obligations and to reconsider accepting science-based conservation measures to guarantee a sustainable future for species like the Atlantic bluefin tuna and white marlin.

I have asked Grant Aldonas, Under Secretary for International Trade, to serve as a point of contact for this important issue, and would ask that you similarly designate an appropriate point of contact for the Commission.

As you know, the Administration is also interested in discussing opportunities for improving disciplines on worldwide fishing subsidies pursuant to the Doha Department Agenda, an objective, I trust we both share. I look forward to cooperating with you to improve the U.S.-EU relationship on these matters.

Sincerely,

DONALD L. EVANS,
Secretary.

cc: Ambassador Robert B. Zoellick
United States Trade Representative

cc: The Honorable Franz Fischler
Commissioner for Agriculture, Rural Development and Fisheries
European Commission

UNITED STATES DEPARTMENT OF COMMERCE
Silver Spring, MD, April 23, 2003

Mr. JOHN EDWARD SPENCER,
Head, Unit of International and Regional Arrangements,
European Commission,
B–1049—Brussels, Belgium.

Dear Mr. Spencer:

I am pleased that we were able to begin our agreed bilateral discussions concerning implementation by the European Community (EC) of ICCAT's new restrictions, including the harvest of juvenile bluefin tuna, and other matters earlier this month. I am only sorry that circumstances were such that we could not meet face-to-face. As I mentioned during our phone call, these discussions take on particular significance given that they are also the subject of a request to the U.S. Secretary of Commerce from several U.S. Governors and environmental organizations that he certify the EC pursuant to the Pelly Amendment to the Fishermen's Protective Act of 1967 for diminishing the effectiveness of ICCAT.

The Pelly Amendment directs the Secretary of Commerce to periodically monitor the activities of foreign nationals that conduct fishing operations in a manner or under circumstances which diminish the effectiveness of an international fishery

conservation program and determine if such activity should be certified to the President of the United States. Upon receiving such certification, the President may prohibit the importation into the United States of any products from the offending country for any duration of time that the President determines appropriate.

As I noted to you, I would like to continue our dialogue on these important issues as soon as possible. The ICCAT intersessional meetings in Madeira present a good opportunity for a follow-up meeting and we should take advantage of it. I will be arriving the weekend prior to the start of those meetings and propose that we meet for a few hours on Sunday, May 25, 2003. In addition, I note that our annual U.S.-EU fisheries bilateral has been scheduled for June 30-July 1 in Washington, D.C. While I will not be in town for that meeting, I will be back on July 2 and would like to propose an informal meeting in my office to continue our important discussions. My staff will be in touch to confirm our next meeting date and time.

It was a pleasure talking with you recently, and I look forward to our next meeting.

Sincerely,

WILLIAM T. HOGARTH, PH.D.,
Assistant Administrator for Fisheries.

Original Message
From: "John Sibert"
To: <FISHFOLK@MITVMA.MIT.EDU>
Sent: Thursday, May 29, 2003 8:55 AM
Subject: Myers & Worm *Nature* article

Fishfolk,

Lest anyone fret about the apparent lack of response to the Myers and Worm *Nature* article, please be assured that several responses are in preparation. The following summarizes some comments that my colleagues and I are assembling regarding the M&W interpretation of longline data; it is only the beginning.

1. The Myers and Worm study is fundamentally flawed because of the aggregation of CPUEs for different species that show different time-series trends and have different longline catchability and uncritical interpretation of pooled CPUE as an index of "community biomass".
2. The popular interpretation of the results of the study as indicating population or community level changes in abundance is incorrect. Longline gear selects mainly the oldest fish and therefore the conclusions of the study should be more restricted.
3. The Myers and Worm definition of tropical area for the Pacific is too restrictive and should have included the main core habitat of tropical tunas and billfish (to 15N). Their claim that this area could not be considered because it was fished prior to 1952 is grossly overstated. Available information suggests that longline fishing effort prior to 1952 in the equatorial area was very low and largely of an exploratory nature. Declines in CPUE of yellowfin and bigeye in this region are neither rapid nor spectacular.
4. The declines in CPUE documented in the Myers and Worm study show considerable differences among species in the western and central Pacific. Most of the visual impact of the decline occurs because of a very high yellowfin CPUE in 1953, when fishing was very spatially restricted and occurred in only part of the year. Changes in albacore CPUE are demonstrably related to species targeting when data from other fleets (Taiwan) are considered. No decline in bigeye CPUE occurred in any region considered over the entire time series. Decline in CPUE in the temperate region is restricted to southern bluefin tuna. The onus is on Myers and Worm to explain how these very different patterns could have resulted given the general claims that they make regarding the impact of longline fishing on pelagic fish stocks.
5. The species-specific changes in CPUE need to be assessed in the context of models that incorporate species-specific population dynamics and make use of a greater range of data than catch and effort statistics from one fleet using one gear. Size-based age-structured models are currently being used for the main species exploited by longline in the western and central Pacific. The results of these analyses will be available within two months.
6. There is no doubt that fishing decreases the abundance of fish populations. The simplest of fishing theories predict that the size of fish populations at full and sustainable exploitation is about half of their pre-exploitation size. Many of the

tunas and billfishes included in this analysis have been carefully assessed by sophisticated models that include multiple gear types, spatial effects, age structure, and long time series. Most of these analyses estimate declines that are far less severe than indicated by the nominal CPUE. There is also no doubt that some fish populations are overexploited, that others are near full exploitation, and that steps need to be taken to reduce levels of exploitation. Myers and Worm do the fisheries community a disservice by applying a simplistic analysis to the available data which exaggerates declines in abundance and implies unrealistic rebuilding benchmarks.

Regards,

JOHN SIBERT.

NEWS RELEASE—Associated Fisheries of Maine Trawlers Survival Fund

THE TRUTH ABOUT NEW ENGLAND'S FISHERIES

For more information: Maggie Raymond, Robert Lane

(New Bedford, MA, June 3, 2003)—Associated Fisheries of Maine and the Trawlers Survival Fund join fishermen and fishing communities around the country in hailing the successes of U.S. fisheries management programs, and refuting the claims of the Pew Oceans Commission that our Nation's fisheries are in crisis. Fisheries management programs in New England continue to demonstrate measurable and substantial success in building sustainable fisheries. Commercial fishing in New England provides millions of pounds of highly valued seafood, thousands of jobs, and defines the social fabric of our coastal communities.

The overwhelming body of evidence does not support the doom and gloom picture of the Nation's fisheries painted by the Pew Ocean Commission, and New England fishermen are concerned that this alarmist report will only serve to undermine the U.S. fisheries management process that has been largely successful. *"The Pew Commission is a self-appointed, elitist group with a vested interest in fabricating crises,* said Robert Lane of the Trawlers Survival Fund. *"None of the Commission's recommendations are at all useful to the thousands of people who roll up their sleeves every day to do the hard work of fishing and developing fishery management plans."*

New England groundfish, our Nation's first fishery, and still the region's principal fishery, has rebounded under strict management plans. These 24 stocks of finfish have, collectively, tripled in biomass since 1994. In particular, Georges Bank haddock and yellowtail, Gulf of Maine haddock, silver hake, and witch flounder, have all made significant gains, and are rapidly approaching a "rebuilt" status.

The scallop fishery is now considered rebuilt and provides significant economic benefits to harvesters throughout New England and the Mid-Atlantic region, and the public has enjoyed a steady, sustainable supply of this highly valued seafood, at a reasonable price.

The herring resource in New England is presently above its biomass target, and fishing mortality remains low. Monkfish, the region's 3rd most valuable fishery, is no longer overfished and is very near its biomass target.

"All of these gains, of course, have come at great cost to New England fishermen", said Maggie Raymond of Associated Fisheries of Maine. *"Strict limitations on the number of days fished, the largest mesh size in the world, and thousands of square miles of seasonal and year-round closed fishing areas have caused economic hardship, but have also contributed to the quick turn-around in the status of these resources.*

The Pew Oceans Commission recommends, among other things, that fisheries management decision-making be taken from responsible managers with regional knowledge of fisheries, and moved to a bureaucracy in Washington, DC. Raymond responded, *"Members of the regional fishery management councils have the local knowledge essential to crafting regulations that achieve conservation goals while attempting to minimize the economic impacts of regulations on fishermen and fishing families. Because Associated Fisheries of Maine supports sound fisheries management, I have acted as an advisor to the New England Fishery Management Council, recommending the adoption of some of the most draconian restrictions imposed on our fisheries to date".*

Reliable data from the National Marine Fisheries Service, the United Nations Food and Agriculture Organization (FAO), and the International Commission for Conservation of Atlantic Tuna (ICCAT), as well as from the Nation's regional fishery management councils, shows consistent progress in rebuilding *and* maintaining healthy fish stocks, and healthy fishing communities. For detailed information about

our Nation's fisheries see the National Marine Fisheries Service "Status of the Stocks" at *http://www.nmfs.noaa.clov/sfa/reports.html* and for New England fisheries, see "Heading Toward Recovery" available at *http://www.nefmc.orq/*

"The truth is out there", said Robert Lane. "But good news doesn't grab the headlines. The stories of sustainable fisheries—good food and good jobs—won't put the names of the members of the Pew Commission in the daily newspaper."

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Associated Fisheries of Maine is a grass roots coalition of fishing and fishing dependent business whose members work and reside along the entire coast of Maine, as well as in Massachusetts. The Trawlers Survival Fund is comprised of over 100 fishing vessels from the coasts of Massachusetts and Rhode Island. Both organizations are fully committed to sound fisheries management, to providing high quality seafood to the public, and to improving the safety of commercial fishing.

The Pew Oceans Commission's traveling road show has been made possible through generous funding by the Pew Charitable Trust. The Pew Charitable Trust has also donated several million dollars to an advocacy group known as Oceana. Oceana, in turn, has spent most of that money on lawsuits that thwart the U.S. Government's efforts to implement effective fisheries management. The National Marine Fisheries Service, in response, has been forced to re-allocate a significant portion of its taxpayer funded budget to compiling litigation records instead of to evaluating, implementing, and enforcing fishery management plans.

The CHAIRMAN. Thank you very much.

Ms. Speer, welcome.

STATEMENT OF LISA SPEER, SENIOR POLICY ANALYST, NATIONAL RESOURCES DEFENSE COUNCIL

Ms. SPEER. Thank you, Mr. Chairman, and thank you very much for holding this hearing today on a very, very important issue.

Before I begin, I want to just quickly address one of the issues that Mr. Ruais raised, and that is to point out that the journal, *Nature,* is one of the top scientific journals in the world, and Mr. Myers' article, along with every other article that is published in *Nature,* is extensively reviewed prior to publication by peer scientists.

In addition, it's not just Dr. Myers' report. Dr. Myers' is only one of a series of reports that have come out recently from the National Academy of Sciences, from the Food and Agriculture Organization, from the National Marine Fisheries Service, that show that we are in serious trouble. We have a serious problem.

But I want to thank this Committee for holding this hearing, and in particular for its leadership on international fisheries issues in the past. Senator Stevens was a key leader on the driftnet ban, he was a key leader on the U.N. Fish Stocks Agreement, and I think now is the time for us to again assert our leadership on the world stage to begin to address some of the problems that we've heard discussed today.

There are three things that I think we ought to consider in terms of asserting leadership on the world stage and addressing these issues. First, I think the United States needs to lead by example, and at 4.5 million square miles, our EEZ is the largest in the world, and if we are to assert leadership globally we need to make sure that our own house is in order, and while there have been very promising signs of rebuilding in places, the overall picture remains troublesome.

According to the National Marine Fisheries Service, well over a third of our assessed fish stocks that are federally managed are ei-

ther overfished, or being fished unsustainably, or both, but that's just one measure of the problem we face. In addition, fishing catches a huge amount of other marine creatures that are discarded dead. Worldwide, the figure is one-quarter of the world catch is discarded dead, and second, the damage to fish habitat posed by some fishing practices is changing the undersea landscape and the ecosystem in ways that we don't fully understand, but that are potentially very troublesome.

The kinds of changes that we think are necessary at home include some of the things that have been recommended by the Pew Oceans Commission and that we think are likely will be also recommended by the National Oceans Commission, and that is, number 1, to replace the existing fragmented system of ocean laws with an overall national ocean policy that's based on the doctrine of public trust.

Fisheries management here at home needs to be strengthened in several ways, first by separating conservation from allocation decisions, and restricting destructive gear that can damage fish habitat.

Finally, scientists tell us that fully protected marine reserves where there is no extractive activity allowed is one way of helping to increase fisheries, to improve ecosystem health, and to rebuild depleted populations.

The Pew Commission report contains a number of other recommendations. I'd like to submit it, along with my testimony, for the record.

The CHAIRMAN. Without objection.

Ms. SPEER. The second major initiative I think the U.S. could undertake is to protect the seamounts that Dr. Lent and others referred to. These are submarine mountains that rise 100 meters or more from the ocean floor. They tend to be isolated and, as a result, they tend to be hot spots of biodiversity in the ocean. According to the UNFAO there are tens, if not thousands of endemic species on each of these seamounts, species that are found nowhere else in the world.

We know very, very little about these seamounts, but they appear to be incredible spots of high biodiversity that require protection. Right now, there is high seas bottom trawling going on on these seamounts that can destroy the very basis of life on them by raking over cold water corals and reducing important productive habitats to rubble in a very short order.

We very much favor a high seas moratorium on bottom trawling on seamounts. We feel that is something that the United States could play a very important leadership role. We need to map these things. We need to identify what's on them. We need to figure out how important are they to the ocean ecosystem before we go trashing them with bottom trawling and other harmful methods of fishing.

Last, I think it's really critical to continue to play the kind of leadership role that the United States has played in trying to address illegal, unreported, and unregulated fishing. This is a really tough issue. The United States has been a leader, and we need to continue to push there. Domestic legislation that the committee has considered and has introduced is one possibility, I think, that may

be fruitful, and we would welcome the opportunity to continue to work with the Committee on this issue.

Finally, the fishing capacity issue is a big one. We need to elevate the discussion of subsidies in particular, harmful subsidies, subsidies that encourage construction and other improvements of fishing vessels, and at the WTO and in other international fora we think elevating this issue, making a bigger deal out of it, is very important.

And last, Mr. Chairman, I would thank you again for holding this hearing. I think the time is ripe. This problem is emerging, it's pressing, we can't ignore it any longer, and it's time for us to step up to the plate.

Thank you.

[The prepared statement of Ms. Speer follows:]

PREPARED STATEMENT OF LISA SPEER, SENIOR POLICY ANALYST, NATURAL RESOURCES DEFENSE COUNCIL

Mr. Chairman, Members of the Committee:

My name is Lisa Speer. I am Senior Policy Analyst with the Natural Resources Defense Council (NRDC), a national conservation organization dedicated to protecting natural resources and public health. We appreciate the opportunity to testify on the U.S. role in international fisheries management.

My work over the last 20 years at NRDC has focused on ocean and coastal resource conservation, both here and abroad. I have had the honor of serving on the U.S. delegation to a number of major international fisheries negotiations, including the UN Conference on Straddling Stocks and Highly Migratory Species, as well as negotiations to implement the resulting treaty in the North Atlantic and the Western Pacific. NRDC has been active in issues debated at the International Convention for the Conservation of Atlantic Tunas (ICCAT), the Inter-American Tropical Tuna Commission (IATTC), the Convention on International Trade in Endangered Species (CITES), and other international institutions that address fisheries issues. Here at home, NRDC has been extensively involved in regional fisheries management issues in New England, the Mid-Atlantic and the Pacific, swordfish and other highly migratory species in Atlantic, and overall implementation of the Magnuson-Stevens Act at the national level. Most recently, the President of NRDC, John Adams, served on the Pew Oceans Commission, which issued its report and recommendations last week.

I would like first to thank the Committee for holding this hearing. Coming on the heels of Dr. Myers' report in *Nature* last month, the report of the Pew Commission last week, the *Defying Oceans End* conference in Cabo San Lucas earlier this month and the conclusion of the 4th UN Open-ended Informal Consultative Process on on Oceans and the Law of the Sea last Friday, the timing could not be more propitious.

Overview of international fisheries

Recent reports and events highlight the fact that we are rapidly reaching, and in many cases have exceeded, the limits of ocean ecosystems and the fisheries they support. According to the UN Food and Agriculture Organization (FAO), seventy-five percent of the world's marine fish populations are fully fished, overfished, or depleted. Sea turtles, marine mammals and seabirds are threatened by incidental catch in fishing gear, as are many species of commercial and non-commercially important fish. More than 2 billion pounds of bycatch—roughly 25 percent of the world's total catch—is discarded dead, the collateral damage of fishing. Destructive fishing practices such as dredges and bottom trawls damage the habitat on which marine life, including important commercial fish species, depend. Overcapacity and subsidies continue to propel short term overexploitation at the expense of long term sustainability.

The depletion of the seas has enormous implications for the human environment as well as the natural one. Globally, marine fisheries employ roughly 20 million people worldwide, many from developing countries where fishing provides a critical source of income as well as food. Here in our own back yard, depletion of cod off Atlantic Canada has cost more than 40,000 people their jobs and has devastated coastal fishing communities throughout the Atlantic provinces.

The experience around the globe is mirrored here at home, where well over a third of federally managed assessed fish stocks are either overfished or are being fished unsustainably, or both. Rampant overfishing in New England, the Pacific and elsewhere has resulted in dramatic declines in key fish stocks, resulting in the loss of jobs and painful readjustments in many fishing communities.

Increasing pressure on deep sea fisheries

Faced with declining stocks in nearshore coastal waters, fishermen are venturing farther out into previously untouched areas of the deep sea, home to exceptionally vulnerable species and habitats, with unknown consequences. According to FAO, the catch of oceanic species typically found on the high seas has tripled since the mid-1970s.

The rapid increase in fishing pressure on seamounts and other deep water areas is of particular concern. Seamounts are submarine mountains and hills that can rise 1000 meters or more from the ocean floor. They are distributed throughout the world's oceans. Recent research indicates that seamounts are centers of biodiversity that frequently exhibit a very high degree of endemism. According to the U.N., the total number of species endemic to deep-sea seamounts may range from tens of thousands or more, thus potentially making these ecosystems the most prolific and diverse on the planet.[1]

Along with deep coral formations and other deep water features, seamounts typically support slow-growing, long-living animals, which can take hundreds or even thousands of years to develop and are exceedingly vulnerable to disturbance. Very little about the distribution, abundance and dynamics of these features and the species that inhabit them is known.

Bottom trawl fishing poses the greatest danger to seamount ecosystems due to the impact of the gear on bottom habitat. Advancing technology now allows fishing vessels to easily locate and fish in previously inaccessible deep-sea areas, including seamounts, banks and canyons, which harbor long-lived deep sea fish such as orange roughy. Trawling for these fish can destroy deep water coral and other complex benthic communities, reducing thriving bottom complexes to rubble in short order.

The role of the United States in addressing international fisheries

The United States has played a key role in promoting reform of international fisheries management over the years. To cite but a few examples, U.S. leadership was essential to securing the 1991 UN moratorium on large scale driftnets on the high seas, the groundbreaking, legally binding conservation provisions of the UN Agreement on Straddling and Highly Migratory Fish Stocks, and the FAO International Plan of Action (IPOA) on illegal, unreported and unregulated (IUU) fishing. U.S. leadership was essential in securing agreement at ICCAT to adopt a recovery plan for North Atlantic swordfish, which have made a remarkable comeback, and in securing agreement on multilateral trade measures to help enforce ICCAT rules.

These and other efforts have served to greatly enhance international fisheries conservation and management. But much more needs to be done. The magnitude of the problem here in the U.S. and around the world calls for a major initiative to chart a new course for fisheries. As a major fishing nation, and one of the world's largest consumers of seafood, the U.S. is in an important position to lead such an effort. Elements of this initiative should include the following.

(1) *The U.S. should lead by example.* At 4.5 million square miles, our EEZ is bigger than the Nation's land area and is the largest in the world. If we are to assert leadership globally, we need to ensure that domestic fisheries are managed responsibly and sustainably. Despite important progress, we remain far short of this goal. More than one third of assessed fish stocks are either overfished, being fished unsustainably, or both according to NMFS, and some are approaching extinction, including several species of snapper, grouper, and Pacific rockfish. The Pew Oceans Commission report outlines important steps we can take here at home to overhaul domestic fisheries management. These include:

a. Replace the existing, fragmented jumble of ocean laws and programs with a unified national ocean policy based on the doctrine of public trust, with clear and coordinated goals, objectives and standards based on protecting ecosystem health and requiring sustainable use of ocean resources.

b. Overhaul Federal marine fisheries management by separating conservation and allocation decisions, restricting fishing gear that is destructive to marine habitats, and implementing ecosystem based planning and zoning.

[1] Draft Report of the Secretary-General on Oceans and the Law of the Sea, June 2003.

c. Establish a system of fully protected marine reserves.

The Pew Commission report contains many other critically important recommendations for improving fisheries management in the United States. I would like to submit the report for the record.

(1) *Pursue an immediate moratorium on high seas bottom trawling on seamounts, deep coral reefs and other sensitive areas.* Such a moratorium should apply until deep water corals, seamounts and other biodiversity hotspots on the high seas can be identified and measures to protect them adopted. In most high seas regions, there are virtually no controls on bottom trawling, and there is great concern that many species are being lost to trawling before they can even be identified. Bottom trawling should be suspended in sensitive areas of the high seas until these features can be mapped, assessed and protected.

(2) *Continue to play a leadership role in implementing the FAO Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing.* The United States has been a leader in promoting international cooperation to deter IUU fishing. Continued progress on this front is essential if the World Summit on Sustainable Development (WSSD) goal of restoring depleted stocks to healthy levels worldwide by 2015 is to be met. Domestic legislation enabling the U.S. to restrict imports of certain fish caught in a manner that is not consistent with international agreements governing fishing and protection of the marine environment has been introduced in the Committee, and we believe this approach holds promise for addressing the problem of IUU fishing. We would welcome the opportunity to work with the Committee on this type of legislation.

(3) *Promote the prompt implementation of the FAO International Plan of Action on Management of Fishing Capacity.* Most importantly, that portion of the $13 billion/year of officially reported fishing subsidies (likely an underestimate)[2] that contributes to overcapacity and overfishing must be addressed. In addition to ongoing discussions of the issue at the WTO, the upcoming 2004 FAO technical consultation on subsidies in the fisheries sector and how they affect overcapacity, overfishing and IUU fishing, provides a potential opportunity to make progress on this issue.

In closing, we again commend the Committee for holding this hearing, and urge your continued involvement and interest in this critical environmental issue. Thank you for the opportunity to testify.

The CHAIRMAN. Thank you very much.

Dr. Sullivan, welcome.

STATEMENT OF PATRICK J. SULLIVAN, PH.D., DEPARTMENT OF NATURAL RESOURCES, CORNELL UNIVERSITY

Dr. SULLIVAN. Chairman McCain, Members of the Committee, thank you for the invitation to discuss the U.S. role in international fisheries management.

A significant number of the world's fisheries are not in good shape. The Director General of the Food and Agriculture Organization of the United Nations at a recent conference stated that 50 percent of the world's marine fishery resources are fully exploited, 25 percent are overexploited, and 25 percent could support a higher exploitation rate.

He goes on to state that despite warning, the trend toward overfishing observed since the early 1970s has not yet been reversed. Similar concerns can be raised here at home as well. In the 2001 annual report to Congress by the National Marine Fisheries Service, the report states that of the stocks whose status is known, 163 are considered in healthy condition, while 81 are considered overfished.

[2] WWF, 2001. Hard Facts, Hidden Problems: A Review of Current Data on Fishing Subsidies.

Given the general consensus that too many populations are overfished, why hasn't more action been taken? The reason is that fisheries management represents a troubled juxtaposition of the human need for these resources in terms of food and protein, economic income, culture, and recreation, with the challenges this need causes to the environment in terms of population sustainability, species viability, and ecosystem stability.

Fisheries science, while making reasonable progress toward understanding our marine ecosystems and the populations therein, faces the daunting task of providing information and advice about these complex systems to constituencies that represent seemingly competing objectives of resource utilization and environmental conservation. Fisheries management is difficult. Tough decisions must be made that influence people's livelihoods and their quality of living, but these decisions also influence ecosystems and consequently the quality of the environment.

It may seem that the objectives voiced by resource utilization and conservation groups are in conflict, but in fact both should represent similar overarching goals. Both seek a healthy, functioning, productive marine ecosystem.

Why the conflict? Often the short-term demands on a fisheries resource such as keeping fishers employed, markets satisfied, or fishing communities economically viable overshadow the very real but difficult-to-see long-term consequences that continued high demand can bring about. In situations where demand for the resource is high, and the long-term consequences are seemingly unclear or uncertain, the tendency is to remain at status quo.

Unfortunately, such a response only digs the hole deeper, making any remedial action difficult to take, often resulting in severe economic and ecological repercussions.

One symptom of this unresolved conflict is indicated by the letter to the journal, *Nature,* by Dr. Myers and Dr. Worm. I appreciate this article, and I think one of the reasons I was called today was to help debate it, and I'm certainly willing to answer questions and help do that, but the signs of something amiss in our marine ecosystems is widely known. We have the Pew Commission report in 2003 on American Living Oceans, we have the National Marine Fisheries report, Toward Rebuilding America's Marine Fisheries, 2003, we have the National Academy of Public Administration report, Courts, Congress, and its Constituencies, Managing Fisheries by Default. I have listed here 12 publications, some of which I was involved with, with the National Academy of Sciences, Natural Research Council, over and over again——

The CHAIRMAN. All of them concluding that?

Dr. SULLIVAN. That there is uncertainty in doing fisheries management, that it's a tough job, and that more needs to be done, and that overfishing is taking place.

The CHAIRMAN. Twelve different studies?

Dr. SULLIVAN. Pardon me?

The CHAIRMAN. Twelve different studies?

Dr. SULLIVAN. Yes.

The CHAIRMAN. Thank you.

Dr. SULLIVAN. Fisheries management is a tough, tough problem, and there is a number of reports that have already addressed this,

and I'm a little surprised, I was telling Ran before, that this particular article should raise so much attention, when this has been raised over and over again over the last 10 years.

So I think the ocean is a fantastic resource, but I also think it's an incredible ecosystem, and I think, if interacted with reasonably, could result in an ecologically balanced and economically viable partnership. One of the neat things about fishing in the ocean is, we're doing it, we're trying to do it in an ecologically balanced fashion as opposed to, you know, I don't know, rice or something like that. You know, the ecosystem goes away, and then we put rice in. We don't do that with fish. We try not to do that. We try to do it in a sort of balanced way.

So how might we do this better? I think first we should recognize the uncertainty associated with it, and adjust to that, but this may mean operating in a risk-averse fashion, where information is lacking. We can't keep up the overfishing for the fish stocks that we're looking at. It seems to be relevant especially to some of the predators, but it's affecting other fish as well.

Quite often, unfortunately, the science gets the blame for the errors that occur, and one of the reasons why there's so many reports is, managers keep getting the message that overfishing is taking place, and so the managers ask the scientists why that's so, and don't believe the answers. I think that's a problem.

So I think quite often, again, that science gets the blame for errors that occur when we're trying to manage our fisheries, and in some circumstances it's blame that's properly placed. However, asking scientists to remove all of the fog in terms of what we can do so that we can drive at top speed in terms of managing our fisheries I think is unrealistic, and presupposing that we can control marine systems to the level that we are presently attempting I think is overly risking. It's overly risky ecologically, I think it's overly risky economically.

I believe the best way to achieve an economically and ecologically balanced relationship with the ocean worldwide is to set the stage for doing so at home. To do this, I think we must create realistic, flexible, ecosystem-based fisheries management plans. These plans may need to step beyond the optimum and maximum yield objectives toward constructing objectives that create opportunity without encountering undue risk.

Think again of this problem raised with the observed depletion of predators. We are working with complex ecosystems here. Our objectives should fit into that. The balance that results may not be optimal for all stakeholders, so perhaps we should better define what opportunities we wish to create, and what risks we wish to avoid. The Myers and Worm letter to *Nature* is just a warning. The warnings are abundant. National Marine Fisheries Service, the Pew Commission, the National Academy of Sciences all provide well-thought-out and appropriate advice. Still, tough decisions need to be made.

I would be happy to answer any questions you might have.

[The prepared statement of Dr. Sullivan follows:]

PREPARED STATEMENT OF PATRICK J. SULLIVAN, PH.D., DEPARTMENT OF NATURAL RESOURCES, CORNELL UNIVERSITY

Chairman McCain, Members of the Committee, thank you for the invitation to discuss the U.S. Role in International Fisheries Management.

A significant number of the world's fisheries are not in good shape. The Director-General of Food and Agriculture Organization (FAO) of the United Nations Dr. Jacques Diouf at the Reykjavik Conference on Responsible Fisheries in the Marine Ecosystem (1–4 October 2001) stated that 50 percent of the world's marine fishery resources are fully exploited, 25 percent are overexploited and about 25 percent could support higher exploitation rates. He goes on to state that "Despite warning, the trend towards more overfishing observed since the early 1970s has not yet reversed." Similar concerns can be raise here at home as well. The 2001 Annual Report to Congress by the National Marine Fisheries Service states that of the stocks whose status is known 163 are considered in healthy condition while 81 are considered to be overfished. Given the general consensus that too many populations are overfished, why hasn't more action been taken? The reason is that fisheries management represents a troubled juxtaposition of the human need for these resources in terms of food and protein, economic income, culture, and recreation with the challenges this need causes for the environment in terms of population sustainability, species viability, and ecosystem stability. Fisheries science, while making reasonable progress towards understanding our marine ecosystems and the populations therein, faces the daunting task of providing information and advice about these complex systems to constituencies that represent the seemingly competing objectives of resource utilization and environmental conservation. Fisheries management is difficult. Tough decisions must be made that influence people's livelihoods and their quality of living, but these decisions also influence ecosystems and consequently the quality of the environment. It may seem that the objectives voiced by resource utilization and conservation groups are in conflict, but in fact both should represent similar overarching goals. Both seek a healthy functioning productive marine ecosystem. Why the conflict? Often the short-term demands on a fisheries resource, such as keeping fishers employed, markets satisfied, or fishing communities economically viable, overshadow the very real, but difficult to see, long-term consequences that continued high demand can bring about. In situations where demand for the resource is high and the long-term consequences are seemingly unclear or uncertain, the tendency is to remain at status quo. Unfortunately, such a response only digs the hole deeper, making any remedial action difficult to take often resulting in severe economic and ecological repercussions.

One symptom of this unresolved conflict is indicated in the letter to the journal *Nature* by Myers and Worm (2003, Vol 423:280–283) on the "Rapid worldwide depletion of predatory fish communities". But the signs of something amiss in our marine ecosystems are widely known. The Pew Commission Report "America's Living Oceans" (2003), the National Marine Fisheries Service Report to Congress "Toward Rebuilding America's Marine Fisheries" (2003) and the National Academy of Public Administration Report "Courts, Congress, and Constituencies: Managing Fisheries by Default" (2002) indicate the need for something other than status quo in how we deal with fisheries and with our marine ecosystems. A number of National Academy of Sciences National Research Council (NRC) Reports have also come out on this and related topics over the last ten years (*i.e.,* 1994 Improving the Management of U.S. Marine Fisheries, 1996 The Bering Sea Ecosystem, 1996 Upstream: Salmon and Society in the Pacific Northwest, 1998 Improving Fish Stock Assessments, 1998 Review of the Northeast Fishery Stock Assessments, 1999 Sharing the Fish: Toward a National Policy on Individual Fishing Quotas, 1999 Sustaining Marine Fisheries, 2000 Improving the Collection, Management and Use of Marine Fisheries Data, 2000 Recruiting Fishery Scientists, 2001 Marine Protected Areas, 2002 Science and Its Role in the National Marine Fisheries Service). We know there's a problem.

A few years ago I testified before the Senate Subcommittee on Oceans as chair of one of these NRC committees. During that testimony I tried to convey that uncertainty plays a large role in determining the limits of our understanding of fisheries populations. This uncertainty about the responses of marine systems to human intervention is not confined to the United States alone. I have reviewed and provided advice to Iceland on cod, New Zealand on hoki, Canada on black cod, and Japan, New Zealand, and Australia, on southern bluefin tuna. As a population dynamicist for ten years with the International Pacific Halibut Commission I provided advice on the halibut fishery (another longline fishery) in the North Pacific, and have provided advice to the Pacific Fisheries Management Council and currently to the New England Fisheries Management Council on fisheries science, stock assessment and harvest management strategies. The common theme in all these

systems is uncertainty. A respected fisheries scientist John Shepherd was once quoted as saying "Estimating the number of fish in the sea is just the same as counting the number of trees in a forest, except you can't see the fish and they move." Uncertainty is a fact of life, but one I think we can respond appropriately to. However, the actions we take must be thoughtful and informed and we must recognize that in most circumstances if we err, we should err on the side of safety for our ecosystem. This guiding principle is called the precautionary approach and it represents an attempt to recognize that errors that impact the ecosystem may be irrevocable. Just to clarify, I do not interpret this principle to mean that being risk averse when it comes to fisheries management should mean that we should not make use of our ocean's resources. We cannot all live on mountain tops in Nepal, and even if we all did this we would still require resources (*e.g.,* rice, air, water) to sustain ourselves. No, I think the ocean is a fantastic resource as well as an incredible ecosystem, and if interacted with reasonably could result in an ecologically balanced economically viable partnership.

How might we do this better? First we should recognize this uncertainty and adjust to it, which may mean operating in a risk-averse fashion where information is lacking. I was thinking about an appropriate analogy on a recent trip home to Ithaca, NY, from a meeting I was attending in Woods Hole, MA. The best I could come up with on the interstate was that fisheries management was a lot like driving on the turnpike. Some of us like using cruise control. It is a bit less taxing, but we need a wide open road to make use of it. Some of us like keeping our foot on the pedal in seeking out an optimal speed. But in driving this way we must be diligent and keep a much closer eye on the road. Right now in fisheries management for many fisheries I believe we are at high speed on the turnpike in the fog using cruise control. We cannot keep it up and we are already seeing the consequences of taking too many risks. Quite often the science gets the blame for errors that occur when we try to manage our fisheries. And in some circumstances this blame is properly placed. However, asking scientists to remove all the fog so we can drive at top speed is unrealistic. And presupposing that we can control marine systems to the level that we are presently attempting is overly risky. It is overly risky ecologically. It is overly risky economically.

I believe the best way for us to achieve an economically and ecologically balanced relationship with the ocean worldwide is to set the stage for doing so at home. To do this I think we must create realistic flexible ecosystem-based fishery management plans. These plans may need to step beyond optimum and maximum yield objectives towards constructing objectives that create opportunity without encountering undue risk. Think again of the problem raised by the observed depletion of predators. We are working with complex ecosystems here. Our objective should be to fit into it. The balance that results may not be optimal for all stakeholders, and so perhaps we should better define what opportunities we wish to create and what risks we wish to avoid. The Myers and Worm letter to *Nature* is just a warning. The warnings are abundant. The National Marine Fisheries Service, the Pew Commission, the National Academy of Sciences are all providing well thought out and appropriate advice. Still tough decisions need to be made.

The CHAIRMAN. Thank you very much, Dr. Sullivan. Thank you for your testimony.

Mr. Ruais, I probably shouldn't bother with this, but you say that in your statement the Pew Ocean Commission, which has been described as, quote, "self-appointed, elitist group with a vested interest in fabricating a crisis, see attached, The Truth about New England Fisheries." That attached, "The Truth about New England Fisheries" article, is by the Associated Fisheries of Maine Trawlers Survival Fund. I won't even comment.

Dr. Myers, do you believe that your study is a radical departure from other studies that have been conducted by other organizations, including the United States Government?

Dr. MYERS. No.

The CHAIRMAN. Do you believe that Admiral Watkins' Commission will basically reach the same conclusions that you have?

Dr. MYERS. Yes.

The CHAIRMAN. Mr. Ruais, do you believe that Admiral Watkins' Commission, from what you've seen of their work so far, will reach roughly the same conclusions that Dr. Myers has?

Mr. RUAIS. I'm not sure, Senator, if that's going to be the outcome.

The CHAIRMAN. If they do, would that lend some credibility to the Associated Fisheries of Maine Trawlers Survival Fund?

Mr. RUAIS. Well, I think it would lend more credibility to the statements of Dr. Mike Sissenwine, chief scientist at NOAA, who has also tried to reassure the public that within the Myers study there is not a lot that's new or surprising to scientists. We all know that when you go fishing, you reduce fish stocks. That's not the issue that's before us today. The issue is, where are we in relation to maximum sustainable yield, and I think by any reasonable standard, both domestically and internationally, we're making progress to date, dramatic progress, as you heard from Dr. Rebecca Lent. In a short period of time after——

The CHAIRMAN. Now, that's not what I heard from Dr. Rebecca Lent. I heard from Dr. Rebecca Lent that domestically, particularly in the Northwest, thanks to Magnuson-Stevens and a number of other measures that have been taken, we're doing pretty well, but I heard from Dr. Rebecca Lent that we're not doing very well at all internationally.

Mr. RUAIS. Well, I'm sorry, Senator, but I didn't quite hear that from Dr. Lent. I heard that we are making progress——

The CHAIRMAN. How? You were in the audience.

Mr. RUAIS. I was. I was, Senator McCain, but I do believe that we are making substantial progress at ICCAT. We've recovered the swordfish resource in half the time. Bigeye tuna is stable, yellowfin tuna is stable. We have problem areas. The industry does not deny that we have problem areas remaining, but we are making progress, and we're here today to ask the committee to help us in the area where we can finish the job, and that is, we lack the political will internationally to get a job, we recognize that.

There's some bad players out there, some bad actors, and we're asking for help domestically to produce the political will within the European community and other countries to focus in on the remaining big problems that we have and allow us to finish the job, but we just feel it's very unfair to have these series of articles coming out painting doom and gloom when fishermen across this country on every coast are sacrificing like crazy to rebuild these resources in a fairly short period of time.

Everybody knows what the conditions of the stocks were in the 1980s and early 1990s, since SFA, and it took about 2 years to get the rebuilding plans in place, we now have more than 50 percent of our fisheries that are recovered, and the remaining 80 percent are recovering. That's remarkable progress in that short period of time.

The CHAIRMAN. Mr. Ruais, there's a disconnect here. Everyone acknowledges and appreciates what has happened with the U.S. domestically. The overwhelming body of scientific opinion is what is happening internationally. Unfortunately, we are part of the globe, and the oceans are part of the globe, and this is the problem,

many of which Senator Stevens pointed out, overfishing and others, so—well——

Mr. RUAIS. If I could——

The CHAIRMAN. I'd like to hear from the other witnesses if you don't mind, Mr. Ruais.

Dr. Sullivan, what is your view here, please, on the veracity of Dr. Myers' study and other preponderance of scientific opinion that we have a problem internationally?

Dr. SULLIVAN. I think we have a problem overfishing both nationally as well as internationally. With regard to Dr. Myers' article, I think it's important to recognize the scale at which it's done. One of the things that I appreciate about what Dr. Myers does is, he takes large data sets and analyzes them, pulls them together and analyzes them in a way that folks cannot, but what we're looking at are like, broadbrush kinds of pictures, and the message is, is that these fish stocks are going down. I think that broadbrush picture is accurate.

Now, whether we should take his analysis and say we need to reduce fishing uniformly by a third throughout the globe, if we want to get into that, we have to do the detailed kind of work. This report won't help with that. It's a warning message, and I think it apparently did the right thing, but in terms of specifics we might say, well, Southern bluefin tuna, we definitely have to do something about that, but something else like yellowfin or albacore, maybe it's OK, and those kinds of things, so you know, we have to recognize the scale at which it's done.

The CHAIRMAN. But you would recognize that as long as we have the kind of illegal activities that are going on by these fishing vessels that are registered in one country, owned by another, offloaded in another, that we have got a significant potential problem here?

Dr. SULLIVAN. Sure. I think that's true in the U.S., as well as internationally.

The CHAIRMAN. Senator Stevens.

Senator STEVENS. Mr. Chairman, I'm with you on the global concept, and I think there's really a disaster globally. I do think, though, and I'm not in total agreement with Mr. Ruais, but I do think the witnesses are sort of bringing the domestic scene into that disaster area and we don't belong there.

The National Marine Fisheries' annual report came out in May this year. It showed that we have a steady improvement, that these laws that we've passed are affecting not only just my area, the North Pacific, but the waters off our coast in general. It showed that one fish stock that had been listed as depleted is now fully recovered, rebuilt. Four species were taken off the overfish list. Seventy overfished species continue to recover under the Federal rebuilding plans, and they're hopeful that they will be successful. The North Atlantic swordfish and the Atlantic pollack were determined to be no longer overfished. Swordfish is almost completely rebuilt, and over the past 5 years, 20 species have been taken off the overfished list and they've eliminated overfishing in 25 species.

Now, that doesn't say that we've done the job totally, but I get the feeling—and Ms. Speer, I would ask you this question. You seem to think that this global problem is our problem, and Dr. Sullivan, you hinted the same thing just now. Why can't we take cred-

it for what we're doing and understand, none of those plans called for immediate recovery in one year. Since we've passed that sustainable fisheries concept and put in place these plans, they're working, and I think we need your help rather than criticism of what's going on.

Why do you continue to assert that we need a new plan for managing fisheries off our shores and calling fish a public property? It's nobody's property until it's harvested. You know, God put them there—that's my belief—and they're not your property and not my property until someone harvests them, but it's our duty to protect them, and you seem to think that we've got to come up with some plan that I have to have a permit from the Federal Government to take fish out of the ocean. Isn't that your plan?

Ms. SPEER. Senator Stevens, the domestic situation I think is one where if you look at the NOAA numbers—I'm just looking at them now—there's 932 federally managed stocks. Of those, we only know the status of 237. Of those, 88 are overfished, so well over a third are overfished.

Senator STEVENS. They're listed as overfished. If they're subject to plans, then they are recovering right now. Each one of them is recovering. There's not one of them listed that's going backward. Do you agree with that?

Ms. SPEER. No. I can cite for one example, cod on Georgia's Bank, which is continuing to decline. It's now at 14 percent of what scientists consider——

Senator STEVENS. That's a family, not a species, now. Let's be careful of what we're doing. Unfortunately, your organization and others do that all the time.

Ms. SPEER. The stocks that are assessed by the National Marine Fisheries Service are done on a stock-by-stock basis, but the overfishing statistics don't reflect the full picture. In addition, lots and lots of marine life is dying in nets and on long lines both in this country——

Senator STEVENS. I agree with that. We tried our best to deal with what you mentioned in terms of the amount of fish returned to the ocean dead. We've tried to stop bycatch. We've tried to penalize those people who do destroy one species in trying to harvest another, but that's still a progress of the plans. The plans are starting to work, and it took us 100 years to get to the bad place we're in, and we've only been going at this now, what, 4 years?

Ms. SPEER. One of the real positive recommendations that I think the Pew Commission report made, and that we agree with, is based on the experience in Alaska, where the scientists established the maximum level of catch that should be caught, and the council rarely exceeds that. The council almost never overrides the scientists.

Senator STEVENS. We never do.

Ms. SPEER. That is not the case in——

Senator STEVENS. We never override it, but under the Magnuson-Stevens Act, no council is supposed to override it. The problem is the discipline of the other councils, and we have to deal with that, but my time has run out and I've got to go to another meeting, but I would urge you who are concerned about the world to give us credit for what we've done.

How can we sell to the world the success we've had if it's criticized here at home? Now, I think you should join us in saying, we've not gone as far as we want to go, we're certainly not perfect, but we have taken steps the world should take. If you say they haven't worked, why should they take them? I think you're misleading the world in criticizing what we've done. We have done more than the world, and it is working. It's not perfect, but I urge you to join us.

The fault I find with the Pew Commission report, it is negative. It once again, it says the Steller sea lion is dying off because of lack of pollack, when pollack is there four to five times the amount it was there 5, 10 years ago. Now, please, you've got monstrous organizations, and they do good, but you should help us in what we're trying to do globally, and you can't do that if you criticize us at home.

Ms. SPEER. We'd like to help make both places a better situation.

Senator STEVENS. We're making it better here at home, but that's not what people are hearing from you today. They're hearing from you today, the United States still has the problem that the globe has. That's not true. We have some of the problems, but we're working on them, and the rest of the globe has not.

Dr. Sullivan, I interrupted you. Sorry.

Dr. SULLIVAN. Mr. Stevens, thank you. I appreciate what you're saying, and to clarify I think—my opinion is the National Marine Fisheries Service is doing a great job. The science is good. I think they're providing good advice. I don't think that advice is always taken, and I think that we are making inroads, but we still have a long way to go.

If the director general is saying a quarter of the fish in the world are overfished, and if the National Marine Fisheries report is saying one-third of ours is overfished, that's telling me that, I mean, we may be doing the right things, but we need to kind of continue along that path. That's all I have to say.

Senator STEVENS. Mr. Chairman, I'd only make one comment. If we didn't have as many lawyers attacking these plans and let them work for a few years before they attacked them, we might be better off than we are today. Almost every one of these plans has been attacked by one of your organizations' financed lawsuits, and I think that's delayed the recovery that could have come from those plans had they been followed in the first place.

Thank you.

The CHAIRMAN. Thank you, Senator Stevens. Ms. Speer, do you want to——

Ms. SPEER. Yes. I understand there is concern about litigation, and you know, we don't want to do litigation any more than the NMFS wants to get litigation at them, but it's been our experience that in many cases the law as you wrote it—and Ran called it the Magnificent Stevens Act, and it is, it's a good law, but it's often not implemented properly, and for example, summer flounder, which is a lawsuit that NRDC was involved in, the council came up with a plan that had an 18 percent chance of meeting the overfishing target.

Now, if we were building a bomb that had an 18 percent chance of hitting its target, the people who invented the bomb would be

out on their ears very quickly. We sued them and we got them up to 50 percent, which is still not, in our view, very adequate, but it's a better—we again and again and again have had to go to court to ensure that these laws are implemented properly.

The CHAIRMAN. So they're just trying to make sure that your intentions are carried out.

[Laughter.]

Ms. SPEER. Thank you, Senator McCain.

Senator STEVENS. My comment is this. I've been a lawyer now for over 50 years. Why did you enjoin the plan? Why didn't you go in and go to court and try to get improvements to the plan and let it start? You delayed it 2 years, so the 18 percent that might have worked, the part of it that might have worked, you delayed.

Now, I believe in litigation to force compliance with laws, but your organization particularly uses an injunction to stop them, and then you litigate, and have appeals and whatnot. The plan doesn't go into effect for 2 or 3 years. I would help you a great deal if you would just take the concept of challenging the plan, but at least let it start. That's happened out our way several times. We've been delayed in terms of implementing a plan, and we've lost a couple of years, and in the course of those couple of years our stocks decline. Thank God, we now have them in place, and my intentions are still good, Mr. Chairman.

The CHAIRMAN. Ms. Speer, I have found from long years of relationship with Senator Stevens that he always gets the last word.

[Laughter.]

The CHAIRMAN. Senator Lautenberg.

Senator LAUTENBERG. Yes, thanks.

The CHAIRMAN. Thank you for your patience, Senator Lautenberg.

Senator LAUTENBERG. Well, I'm subdued by my interest and the challenge, because I have some disagreement with some good friends here, and I think that if we can't look in the mirror and see what's wrong and take those steps, then we're kind of—we've got our heads in the sand. Do we have a lot of foreign fleets fishing in what would be restricted waters? Is that a problem these days?

Mr. RUAIS. No, it's generally not. There's very little foreign fishing going on, at least in the Atlantic Ocean today.

Senator LAUTENBERG. Now, how about in the Pacific Ocean?

Mr. RUAIS. No.

Senator LAUTENBERG. They are not within our limits?

Mr. RUAIS. Not within the U.S. EEZ, Senator.

Senator LAUTENBERG. Anybody want to say anything?

Dr. MYERS. Some of the fish stocks that migrate from U.S. waters into other waters, for example Atlantic halibut, which is in absolutely desperate, desperate shape, should be, like Pacific halibut, a great source of wealth to Canada and the U.S. and the world, is now virtually extinct, and halibut goes from the U.S. to Canada in international waters, and none of the countries have made significant progress in terms of protection. Protect the sensitive species, and we'll have the great fisheries in the Northeast as we have in Alaska, so get the Atlantic halibut back, and that needs international action, led by the U.S. on the issue.

Senator LAUTENBERG. Mr. Ruais, you are the Executive Director of the East Coast Tuna Association?

Mr. RUAIS. Correct.

Senator LAUTENBERG. What is the mission of that association?

Mr. RUAIS. We represent about 300 rod-and-reel, hand-thrown harpoon fishermen and small purse seine fishermen that fish for the United States' allocation of giant bluefin tuna from New England through North Carolina, essentially, and our mission is, we sponsor a lot of independent science to determine the status of the resource. We initiated the electronic pop-up satellite tag program to determine where these fish are migrating to, and we've been involved in a lot of other regional research.

Senator LAUTENBERG. I take it from your comments that as far as your associates are concerned, it is let's go fishing, and there's plenty out there for us, and not to worry about it. Do I characterize your view correctly?

Mr. RUAIS. No, Senator, and I apologize, and I'm a bit at a loss to see where the disconnect—I'm sure it's my fault.

Senator LAUTENBERG. Well, the disconnect is that you are very critical of Dr. Myers' report, and our other friends here talk about declining stocks. I see it in a relatively nonscientific way, as I mentioned earlier. I go to some of the fishing ports along the New Jersey and New England coast, and hear seasoned fishermen complain about how far out they've got to go before they can strike a reasonable harvest—even to places they thought might produce some decent quantities, they come back with far less.

So I'm taking what real people who make a living that way tell me. They relay that there isn't enough out there, and then I see Dr. Myers' report. By the way, Dr. Myers, do you go through peer review before you're released to publication?

Dr. MYERS. The journal, *Nature,* is the most difficult journal to get a paper in, and plus, this study was taken from 10 years and has been criticized by probably 100 scientists. Not all agree with me, but I've duplicated all of the analysis multiple ways.

Senator LAUTENBERG. Do you have any scientists that agree with you?

Dr. MYERS. Oh, I would say the great majority of scientists agree with me, and there's virtually no disagreement about the groundfish stocks. I mean, no one really disagrees. The only disagreement is about whether the tunas of the world are one-tenth of what they were, or one-twentieth what they were, or one-third of what they were, but that's the level of disagreement.

Senator LAUTENBERG. Mr. Ruais, do you agree that there's a decline in the amount of tuna out there, or is it just the same that it's always been?

Mr. RUAIS. Yes, Senator, I do think that I acknowledge that we realize that there remain some very critical problem areas, species that have not yet been addressed by ICCAT or other international fora.

In terms of Dr. Myers' work, I think it's too early for one to make a broad conclusion that most of the scientists out there agree with the methodology that he used. There is some very significant criticism very early on. It takes a while for the scientists to gear up and respond, but it will be coming online, but we don't try to deny

that we have problems, and what we're looking for, we're very aggressive in pursuing Commerce Department and State to try to give us the tools for the U.S. commissioners to get the job done at ICCAT, and if you sense some frustration in my own testimony, and some anger and disappointment, it's because fishermen——

Senator LAUTENBERG. I sense all of those, yes.

[Laughter.]

Mr. RUAIS. OK, well, that's because they're real, Senator, because the industry——

Senator LAUTENBERG. Well, I'm going to interrupt you and ask Ms. Speer and Dr. Sullivan, where do you come out in this little debate that we've had with these two—is the science questionable that Dr. Myers is producing, is following? Do you sense that Mr. Ruais is much closer to the reality? Do you have views on that?

Ms. SPEER. Again, I think as Dr. Myers pointed out, the journal, *Nature,* is one of the best, if not the best and the most highly respected scientific journal in the world.

Senator LAUTENBERG. Says who?

Ms. SPEER. Says many different scientists. If you poll scientists, I think you would find that answer is pretty consistent.

Senator LAUTENBERG. Dr. Sullivan, do you agree?

Dr. SULLIVAN. Yes, *Nature*'s a good journal.

[Laughter.]

Senator LAUTENBERG. OK. Somebody's out of step.

Ms. SPEER. The review process that these poor guys have to go through is pretty tough before this thing can actually appear, but it's more than that. It's not just Dr. Myers' study. It's studies by Dr. Pauli, it's studies by the National Academy of Sciences, it's studies by the National Marine Fisheries Service—I mean, the data is overwhelming. We have a problem.

Senator LAUTENBERG. It comes to similar conclusions.

Ms. SPEER. And we need, what we really need is for the United States to step up on the world stage and take this issue on and really elevate it and move ahead on the issues we've talked about today: illegal and unregulated reporting, capacity issues, protecting hot spots of biodiversity like seamounts and deep sea corals.

Senator LAUTENBERG. Dr. Sullivan.

Dr. SULLIVAN. Thank you. I guess I would like to add a little balance. I mean, we're all kind of ganging up on the tuna guy.

[Laughter.]

Senator LAUTENBERG. He's got fairly broad shoulders.

Dr. SULLIVAN. I think broadly there are problems. One of the things that I see that upsets me is, when we react to these things we seem to react broadly too, so for example, one of the things that happens with tuna in particular is, we work on dolphin-safe tuna. Most people, Joe Citizen, don't know that some tuna are associated with dolphins and some tuna are not associated with dolphins, and so when something hits the press that people fishing for tuna are endangering dolphins, what happens is, we just stop eating tuna, and it's not that simple. It's more complex than that.

There are some fisherman—so when this happens there are entire fleets in the Pacific, tropical Pacific that go out of business that are actually doing ecologically, economically the right thing, and so I think my only caution with Dr. Myers' article is what I said be-

fore. It's a broadbrush picture, and he's really good at picking those kinds of things out, but when we go and say, should we fish on yellowfin tuna any more, we can't take the broad study and make an automatic demarcation as to what should happen with each of these individual species, so I think there is some cause—I mean, we can't just stop fishing. I mean, it's an important resource.

Senator LAUTENBERG. But if you're saying that there are some species that are doing better than others, I mean, that's reasonable. The question is, are there more that are doing worse, and does it disturb the ecological chain? I know that cod are such a basic nutrient for people, especially off our Northeast corner and then to suddenly find these things that were so abundant and plentiful before not available—by the way, the blue marlin, is there a problem with blue marlin? How do you feel about the blue marlin, Dr. Ruais?

Mr. RUAIS. Well, I'm not a doctor. I'm not a scientist, Senator.

Senator LAUTENBERG. I try to elevate you so you're competitive here.

Mr. RUAIS. Blue marlin is under ICCAT management right now. There are very strict limitations here in the United States on our recreational fisheries and on our commercial long-line fleet, which are totally prohibited from landing any marlin, and they're required to release alive as close to the boat as they can in the best shape possible.

The trouble is, again, on the high seas we don't have that kind of cooperation with the high seas international actors that are playing here, and we have the pirate ship problem, and that's one of the suggestions we've made to this Committee, is to give the commissioners, Department of Commerce, press the Department of Commerce to use the multilateral authority that we have right now at ICCAT to use our marketplace to force those incentives to force the other countries to begin to cooperate.

And if I could just finish up, Senator, in the question you had asked me before, why are we frustrated, there is a strong view across this country, whether it's in the Gulf of Mexico, the Pacific, or here, that U.S. fishermen across the board are doing more than anyone else leading the way to try to solve domestic and international fish problems, and then we're kind of blind-sided by studies like this that then get picked up by the Washington Times in the morning and you wake up to, by taking swordfish, tuna, and sharks off the menus and demanding that seafood restaurants provide sustainable seafood choices, this hurts the people who are making the main contributions to conserving these resources.

Swordfish in the North Atlantic is completely rebuilt. In the South Atlantic it's operating at maximum sustainable yield. There's no reason to be scaring the public into telling them that they shouldn't be eating these seafoods.

Senator LAUTENBERG. Well, is there any disagreement with that conclusion about the swordfish abundance?

Dr. MYERS. I mean, just from personal experience, I work with fishermen along Nova Scotia, and particularly the swordfish harpooners, and this is a great way to fish. You go out in a boat and you—you kill them yourself. You get big ones. This is the kind of fishing that's really great, and my friends that fish, you know, year after year, the large swordfish are gone.

You know, how many people are harpooning for swordfish along Long Island any more, right in close to shore? None. How many people are harvesting swordfish by Maine? None, and the same with Nova Scotia, where I know the fishermen. These guys are great, and the idea that swordfish are recovered, in spite of what ICCAT says, my personal opinion is, it's simply ridiculous.

But to agree with Mr. Ruais about the importance of getting the EU in particular in their environmentally self-righteous ways to act, even somewhat in a conservation management way, is really difficult. Their data is terrible. Their management and their data collection, there's almost no data collected on sensitive species like sharks, which is what the U.S. does really well.

Senator LAUTENBERG. I want to ask one question to see if anybody knows, and I've overstayed my time, and I appreciate your patience, Mr. Chairman, and that is, do any of you have any indication of what the salmon population is in Alaska, Prince William Sound, and that area?

Dr. SULLIVAN. It goes up and down, depending on whether the currents are going up into Alaska or going down. It switches back and forth between Alaska and the southern lower U.S.

Senator LAUTENBERG. Was it damaged? Does it reflect damage that occurred with the Exxon Valdez at all, or is it way past that?

Dr. SULLIVAN. No, I think environmentally that did not play a role there.

Senator LAUTENBERG. Thank you.

The CHAIRMAN. Thank you. Senator Sununu, and I'll go and vote and you can finish up.

STATEMENT OF HON. JOHN E. SUNUNU,
U.S. SENATOR FROM NEW HAMPSHIRE

Senator SUNUNU. Thank you, Mr. Chairman.

Let me try to find some common ground, and reiterate a couple of points that I heard that I think are pretty important.

First, Senator Stevens noted that it is important that we recognize where we have had success domestically. I think it's fair to say that the United States has been very aggressive in establishing domestic plans for a number of species, and it is important that we recognize where we've been successful domestically, because that is going to be critical to us being effective in pushing for greater compliance internationally.

I think that is an extremely important point, and I will come back to that with respect to ICCAT, and in that regard, if we are too vague and too broad and too sweeping in our conclusions or criticisms of our own industry, we will lose credibility. That doesn't mean that we haven't had failures as well as successes domestically, but if we do not recognize the domestic successes, we will not have credibility when we really need to push hard, whether it's through ICCAT or through the EU, or through other international treaties, to make a difference, and I think there is some consensus here as well that among the biggest problems we face, the biggest challenges we face are the international ones, and I don't think we can lose sight of that fact.

Second, it seems to me that to the extent that there is concerns with this study in *Nature*—and let me stipulate that certainly at

least for today *Nature* has joined Alan Greenspan on the pinnacle of hallowed ground——

[Laughter.]

Senator SUNUNU.—and reverence, and at least on Capitol Hill, and maybe appropriately so, but that doesn't mean that either *Nature* or Alan Greenspan aren't wrong once in a while, not that your study is wrong. It may be, it may not be, but these are good publications, and he's a good chairman of the Federal Reserve, and we like them both.

[Laughter.]

Senator SUNUNU. But it seems that if there's a concern here, it's that the study, as I understand it, and I haven't read the entire study, and I appreciate your testimony, but the study talks broadly about predatory species. It doesn't go into depth or draw specific conclusions about all of these predatory species, and there are some predatory species.

We can talk about bluefins more, and I want to talk in detail about bluefins, but there are some species where we have these management plans in effect, and you can look at the NOAA data, and swordfish was mentioned, I think bluefin, bigeye—you know, I don't know what these fish look like exactly, but there are cases where we have management plans domestically, and some international cooperation, where we have either eliminated the overfishing status or begun rebuilding stocks, or if the testimony is correct, actually reached a rebuilt status for swordfish according to ICCAT.

So I think the disconnect is, or the concern is that we not use a study looking at broad patterns of predatory fish to conclude that we have failed on all species of predatory fish. Fishermen, to the extent that I know them, and I don't know any of the big harpoon guys in Nova Scotia, but we have little guys who fish at the co-op in Portsmouth, New Hampshire, and they do work hard, but they target species. They're out there going for hake, they're out there going for cod, or they're fishing for shrimp in the wintertime. They're doing different things. They're targeting species, so they're not out there, I'm going out to get some predatory fish today.

Therefore, we need to think in terms of targeted plans to strengthen specific stocks in specific areas, recognize the successes, and work on the failures, and I think if there's any place that there's a disconnect, I think that's where it is.

Let me ask Mr. Ruais, talk a little bit more about the pop-up tuna program, and this is important, because I think Dr. Sullivan made the comment, the scientists come up with answers, and maybe sometimes they're listened to, sometimes they're not, sometimes they're right, sometimes they're not. I think this is an area where for a pretty small amount of money, at least as far as Washington is concerned, $200,000, $300,000, two, three years ago, with great cooperation from fishermen who started this pop-up tuna program, could you describe it a little bit, and talk a little bit about some of the findings, because what little I've seen of the program I've found to be quite interesting.

Mr. RUAIS. Well, thank you, Senator Sununu, and thank you for all your support in years prior to make sure that those funds were available, and I was actually hoping you were going to continue,

because you were doing such a great job of defining it, but in the 1980s, when scientists didn't have enough information on the migration patterns of bluefin tuna, an assumption was made back in 1981 that there were two stocks, and so ICCAT drew an arbitrary line down the middle of the Atlantic Ocean at 45 degrees and said, we'll manage the Western Atlantic under great restrictions, and we'll leave the Eastern Atlantic alone, and the assumption was that mixing was minimal.

Fishermen knew that that was wrong, that we knew these fish went great distances. Conventional tagging told us that. There was an episode of 17 fish tagged off of Miami in the 1970s, and 14 of them were recaptured in Norwegian purse seine fisheries 50 days later, so we knew that they were capable, but nobody knew just exactly how extensive the migrations were, and the trouble with putting tags on the fish, regular tags on the fish is, you have get the tag back in order to know the completed journey.

The beauty of pop-up satellite tags, electronic tags, is that they release at a predetermined time, pop up, float up to the surface, and then start sending the information to the Argo satellite, and you know exactly what's going on, and what this revealed from a fairly small study, as you mentioned, at the New England Aquarium is that anywhere from 30 to 55 percent of the bluefin in New England at any given time on Jeffreys Ledge, in the Gulf of Maine, swim across that line within a year of that tag being placed, and what that shows is that it truly is a shared management, a shared resource picture, and the U.S. can't do it alone, and it began to give managers, our ICCAT commissioners, some leverage to demand in the East that they begin conserving as well, because clearly we had an argument now that they were usurping the conservation gains.

When we release the fish, when we're stopped because of quota, when we're stopped because of size limits and the fish swim across the line, if the fishery over there is not operating under the same conservation standard, then the conservation effort of U.S. fishermen is wasted, and that is the remarkable contribution that pop-up satellite tags have already done on bluefin, and now that story is being repeated on a number of other species as well.

Senator SUNUNU. Dr. Myers, any comment about the study, or was it your hunch that the line was arbitrary?

Dr. MYERS. Well, it was very clear from the study that Mather carried out that my colleague referred to is that the bluefin tuna off the U.S. coast, particularly off of Florida, migrate into European waters, and it's also very clear that, and one motivation for this study is that those fish that we assessed are now largely gone. The Europeans eliminated the fish that swam from Florida waters, very clearly in the 1950s, into their waters. The great fisheries in the North Sea, there used to be huge flows——

Senator SUNUNU. Wait, I'm sorry, if it was so clear that these fish were migrating in the 1950s, why was the assumption made by ICCAT that they didn't swim east to west, and that there wasn't migration between the Eastern Atlantic and the Western Atlantic?

Dr. MYERS. ICCAT is an imperfect organization. I mean, I think it was abundantly clear. There were very good studies carried out in the fifties and sixties, and also the fish tagged off of Florida migrated down—you see these red areas here? The Japanese elimi-

nated the bluefin tuna in the South Atlantic, I mean, eliminated. They caught 200,000 in the first 15 years of the fishery. With 80 million hooks in the last 15, they have caught exactly zero, so the fish that used to come and be available for U.S. fishermen are now gone in a way that I think that ICCAT grossly underestimate.

Senator SUNUNU. So you think the New England Aquarium program was a waste of money?

Dr. MYERS. No, no, I didn't say that.

Senator SUNUNU. I mean, it sounds like it was just verifying something that you believe was proven without doubt in the fifties and sixties.

Dr. MYERS. Well, I believe that the general patterns and the satellite pop-up tags programs in general carried out by the New England Aquarium and the Monterey Bay Aquarium have provided enormously useful additional information, because we only knew where they were caught, not where they went.

Senator SUNUNU. Mr. Ruais, do you support Secretary Evans' effort to enforce, not to work with the EU, but to require the EU to enforce ICCAT and to do a better job with compliance, including eliminating the subsidies?

Mr. RUAIS. Yes, Senator. In fact, we've been begging for that assistance to the U.S. commissioners, because without that high level involvement, until highly migratory fish are made a large international issue like we've never seen before, we're not going to get the cooperation from these countries that we need, and the quickest way to get there is the trade sanction route. It's not the one we prefer, but you cannot enforce these things on the high seas.

We heard the Admiral say that the EEZ is 3.3 million miles, ours alone. If you get out on the high seas, 94 percent of the world's surface is the oceans, and we certainly can't have Coast Guard vessels out there. The marketplace is the place to be.

Senator SUNUNU. Ms. Speer, has your organization put out any specific recommendations to help force compliance for the EU? Have you worked with your organizations over in Europe to force compliance with ICCAT?

Ms. SPEER. We unfortunately are a domestic organization and so do not have offices over there.

Senator SUNUNU. You don't talk to any of those other international groups concerned about fisheries or the environment?

Ms. SPEER. We do, in fact, and I think there are some very interesting options with respect to trade restrictions that are out there. The committee last year, Senator Kerry introduced some legislation that would permit, for example, the United States to prohibit the importation of fish that is caught in ways that are not consistent with international agreements to protect either fisheries or the marine environment. Those types of pieces of legislation domestically I think could really help.

Can I just respond to one thing?

Senator SUNUNU. Can you imagine a world where I said no?

[Laughter.]

Senator SUNUNU. Of course. Of course.

Ms. SPEER. I would like to just address a couple of things. One is, the lead by example, I completely agree with you. We need to

go out there and put ourselves out there, and the measures we have taken, and many of them have been very painful, to restore fisheries. That said, we can't very well tell other nations to clean up their act if our own house is not in order, and I think that's the point.

The point is, we need to work abroad, but we also need to work here so that we're setting an example that we can go to other places credibly and say, we've done this here, we've taken a lot of very serious and very difficult actions to restore our fisheries, and you need to do the same.

Second, with respect to *Nature* at the pinnacle, *Nature* is at the pinnacle, but again it's not just *Nature,* it's Science, it's the National Academy of Sciences, it's the National Marine Fisheries.

Senator SUNUNU. I don't disagree. I was just making the point that there's no need to quibble about the veracity of *Nature.* I was just surprised how many times we had used the word, Nature, and I don't disagree with you in the least.

Ms. SPEER. OK. The issue you raised about broad brush, and needing to look deeper than just the broad brush, is absolutely right, and as you said, when people go out off New England, when they go out to target a specific species, they're targeting a specific species. The problem is, they're using gear that doesn't target specific species. They're using long lines that are nonselective, and they catch a lot of other fish, including sharks, and the status of sharks is something of very great concern, as well as other fish, and so getting at the issues of gear I think are really important.

Larry Crowder is coming out with an article in *Science* next month. 3.5 million hooks are set every night around the globe. 60,000 leatherback turtles are caught each year in those long lines, a quarter of a million loggerheads, and these are collateral damage that is extremely important, and it's important to look beyond just the status of individual fish to what we're doing to the whole ecosystem.

And last, on swordfish recovery, swordfish recovery is something that we are really proud of, because we made swordfish at NRDC a very important issue.

The closures of nursery areas in the South Atlantic, and the reduction in quota that was adopted by ICCAT were absolutely essential to making sure that that stayed on track. That said, biomass, the recovery to the biomass levels that are considered healthy is only one measure. It's not just how big you are. It's what the population structure looks like, and most of the recovery is still concentrated in these little guys. We have to let them grow bigger and restore that whole population structure in order to have a healthy fishery, and I think that's one of the issues that Dr. Myers was trying to get at.

Senator SUNUNU. Well, maybe I should just quit, because you've basically agreed with, you know, most of the things that I said, and that's always a good way to leave the hearing room. But with regard to the last point, I don't necessarily agree that you have to have the biggest and most ancient of fish in order to have a healthy, sustainable, manageable population in that you do need a certain distribution of age, that's spawning population in order to

sustain that population, but you don't necessarily need—I don't know, how old does a bluefin tuna get, 30 years?

Mr. RUAIS. Close, yes, sir.

Senator SUNUNU. You don't necessarily need 30- or 35- or 40-year-old bluefin to have a healthy population.

Now, we may decide we want to have 30- or 40-year-old bluefin. That may be our regulatory regime, but if you're looking at sustainable fisheries practices, just having a certain cohort of 35-year-old fish doesn't necessarily determine the health of the overall fishery.

Now, maybe you're going to argue you just can't have a healthy fishery without 35-year-old bluefin. I don't know that I agree with that statement. I think biomass is important. It is important to have different cohorts spawning at different times, and you're probably going to tell me there's some sort of a cycle, like a 2-year, where they spawn and then don't spawn.

In fact, that's true. I think the pop-up programs showed that, didn't it, that some spawning age fish don't go down to the gulf to spawn, they actually, for some reason during the spawning season they're up in the North Atlantic. Isn't that the case?

Mr. RUAIS. It is. In fact, they may be spawning somewhere else.

Senator SUNUNU. Who knows? OK, enough about the personal habits of fish.

[Laughter.]

Senator SUNUNU. I just wanted to make that final point. It's in my power now to thank all the panelists. I think this is a very interesting discussion. I think we very much agree we've got a big international problem. We do have some successes domestically, and I'm sure the scientists are going to be out there on boats and talking to their friends in Nova Scotia to keep getting our Committee good information.

Thank you very much. The hearing is adjourned.

[Whereupon, at 11:37 a.m., the hearing was adjourned.]

A P P E N D I X

PREPARED STATEMENT OF HON. ERNEST F. HOLLINGS,
U.S. SENATOR FROM SOUTH CAROLINA

Mr. Chairman, thank you for holding this timely hearing on the very real problem of global overfishing and what it means for our marine environment and our economy. This Committee has a long bipartisan history of working together in to solve problems caused by unlimited and reckless fishing practices. Over its history, the leadership of this Committee, including Warren Magnuson, Ted Stevens, and John Kerry, have made lasting contributions to conservation of living marine resources both in the United States and on the high seas. In fact, it was overfishing by foreign fleets that brought this Committee together back in 1976 to pass the Fishery Conservation and Management Act, which extended U.S. management authority out to 200 miles, a full five years before President Reagan formally declared the 200 mile U.S. EEZ.

In addition, many of our members have authored or championed efforts to curb deadly and wasteful fishing practices. These include resolutions to ban the use of large-scale high seas driftnets—"curtains of death"—and this pressure ultimately resulted in the 1991 United Nations ban on the use of such nets. Our members were also responsible for legislation that established the famous "dolphin safe" label, through which consumers ensure they are buying tuna that was not harvested using methods that harm or kill dolphins. And when U.S. law required our shrimp fishermen to use turtle excluder devices (TEDs), I wrote the 1990 law that reduced sea turtle mortalities in foreign shrimp trawl nets by ensuring shrimp imported into the U.S. was caught using TEDs.

Most recently, the 1996 Sustainable Fisheries Act, authored by Senators Stevens and Kerry, and strongly supported by this Committee, set the gold standard for fishery management around the world. Sadly, the world has not yet followed, and everyone in the end will be paying the price. The recent press reports, including Dr. Myers' *Nature* study, tell us that we must be vigilant and take heed of what is happening out there. Since fish stocks roam from place to place, this global failure affects us. No matter what we do here at home, we see that fisheries around the world are declining if they are not managed responsibly. Well, I think all our witnesses have to concede that fisheries are not, in many cases, even being *managed.*

Moreover, we need to look at whether we are telling consumers the whole truth: that as our appetite for seafood grows, we are driving practices that will bring us to the brink of economic and political disaster. Scientific reports have shown that landings from global fisheries have shifted in the last 45 years (particularly in the Northern Hemisphere) from large fish toward smaller invertebrates and plankton-eating fish. This phenomenon, known as "fishing down the food web," is not sustainable in the long term. Both overfishing and fishing down the food chain threaten global food security. These fish are sold here in the U.S., and we don't even know where it's been, whether it's safe, and how it was harvested. This is basic information we have the right to know.

We want to hear more about who's responsible, and how bad it is, but it's even more important to talk about the solutions that will get us some results. There's a real problem when our fishermen who do the right thing are going broke because they are undersold by imports that cost less because they don't comply with any of the same conservation, health or safety standards. I think the east coast governors got it right—we really have to show what we are made of in the trade world. The U.S. is the *third largest* importer of seafood,—$9.9 billion in 2001. We should use that voice to hold other countries accountable for destructive practices that have impacts on our economy and health, especially countries who don't follow the very rules they put on paper.

Now, there was a lot of opposition when the shrimp-turtle law went into effect, but we got it implemented and it is being used right now. I will bet my bottom dollar that having those requirements at the negotiating table help move the ball forward far more than the typical "meet and greet" sessions that go on out there. We

need more tools to ensure our law-abiding U.S. fishermen are on a level playing field with imports, so that U.S. consumers can be assured they are eating seafood that will be available for decades to come. I could go on at length also about the lack of inspection of imported seafood—but that is for another day. All I will say is that as a result of last year's Farm Bill, we'll finally have "country of origin" labeling for seafood. That's a victory for consumers, who can now "Buy American," but it's only a start.

I appreciate that many of our witnesses are holding up certain U.S. fisheries as examples of good management, giving us hope, rather than just telling us the "sky is falling" and heading on home thinking they've done their job. It's gratifying to hear that the Sustainable Fisheries Act has changed the course of U.S. fisheries management—even in some of the New England fisheries—which I know has not been an easy. But U.S. fishery management is not perfect and we have some more strides to make, so we also want suggestions for improving things here at home. We are doing a lot here in Congress to get NOAA more money for the science and management reforms that are needed to make sure we get this all done, and done right.

I look forward to hearing about all of these issues from our experts.

Thank you.

PREPARED STATEMENT OF HON. DANIEL K. INOUYE, U.S. SENATOR FROM HAWAII

The issues of global overfishing and insufficient international fishing management are vital to our nation, and especially to Hawaii, where fishermen compete with numerous Asian countries' fishermen for the marine resources needed for nourishment and economic growth. While stocks in the Pacific are generally thought to be in better shape than Atlantic stocks, the increased fishing takes from China, Japan, and other Asian countries are starting to cause concern.

It is clear that many stocks internationally have been overfished, but I think it is inappropriate to make overarching statements that all the world's stocks are in peril. Within the United States Exclusive Economic Zone (EEZ) major efforts are underway to replenish diminished stocks, and there have been success stories. The National Oceanic and Atmospheric Administration announced in May of this year that four species were removed from the overfished list in 2002, and 70 other species that are overfished continue to recover under Federal rebuilding plans. While our management regime is not perfect, we should take pride in the broad efforts of researchers and fishermen. Everyone involved with these issues is working very hard to rebuild depleted stocks and sustainably manage all stocks.

The major challenge to U.S. marine fisheries management and key frustration of U.S. fishermen is that U.S. fishing fleets are restricted—and in some cases, prohibited—from fishing on the high seas while foreign fleets are able to continue unimpeded. These restrictions force the costs of compliance with U.S. law upon our domestic fishermen, allowing foreign fleets to out-compete them with cheaper products harvested using ecologically damaging fishing practices. For example, in Hawaii, our longline fishing fleet is barred from harvesting the healthy swordfish stock on the high seas as a result of a judicial decision citing concern over interactions with endangered sea turtles. However, the larger longline fleets from other nations have continued to fish those same stock without protective measures, and so the restrictions from our domestic law have benefitted neither the sea turtles nor the U.S. fishermen.

As the U.S. fishery management regulatory regime becomes more stringent due to the conservation-focused approach we have adopted, the failure of other nations to adopt similar measures will have growing economic and conservation implications to world oceans and fish stocks. We must address this problem before all the world's stocks are truly over-exploited.

PREPARED STATEMENT OF HON. RON WYDEN, U.S. SENATOR FROM OREGON

Mr. Chairman, if this committee takes just one thing away from the doom-and-gloom fish stories of the past few days, it should be this. Fishery management in this country has to move, right now, from exploitation mode to sustainability mode. Otherwise, the losses this Committee is hearing about today will become irreversible.

In my home state of Oregon, I've seen poor management of the groundfish fishery damage fish stocks and hurt coastal communities. But, this year, I have also seen sustainable fishing reap the third highest landings ever in our Dungeness crab fishery. I'm convinced today that fresh, new approaches to fishery management can

remedy the mistakes of the past and help create stronger, more sustainable oceans and fishing communities.

My colleague Senator Smith and I have already won bipartisan approval for one new idea: an industry-financed buyback to help those who want to leave the crowded West Coast groundfish fishery do so, leaving a more sustainable fishery for those who remain. Now, along with Senator Murray, we have introduced the Capital Construction Fund Qualified Withdrawal Act of 2003. That proposal would let fishers use money they've saved to work on their vessels, use it instead to retire or to fish in a more sustainable way.

M. Chairman, the United States can lead the world by example in fixing the fishery crisis. America is coming up with new ways, every day, to make the situation better. It's the job of this Committee, and of this Congress, to facilitate the bold efforts necessary to make America's fisheries live again.

Update on Current Wyden Fisheries Initiatives

West Coast Groundfish Capacity Reduction (a.k.a. Buyback) Program

- NOAA fisheries [formally National Marine Fisheries Service (NMFS)] published the proposed rules for the buyback program on May 28, 2003.
- After a 30 day comment period, NOAA fisheries will review the comments and publish the final regulations.
- Bids for fishing permits will then be accepted by NOAA fisheries and the number of permits and vessels that will be removed from the fishery using the $46 million available to the buyback will be determined.
- A referendum needing a simple majority to pass will be held where fishers will vote to decide if the buyback should be completed.

Capital Construction Fund (CCF) Qualified Withdrawal Act of 2003 (S. 1193)

- A CCF is an account were fishers can deposit profits tax free provided the money is only used to replace or upgrade their vessel in the future.
- The CCF was conceived at a time when the Federal Government wanted to help expand American fishing fleets. Fish populations have declined and many fisheries are now over-capitalized.
- This bill changes current law to allow fishers to remove money from their CCF for purposes other than increasing fishing capacity such as contributing to an IRA, paying the industry fee associated with a buyback program, acquiring a vessel monitoring system, or the purchase or construction of bycatch reduction gear.
- The bill is supported by the environmental community (*e.g.,* National Resource Defense Council) and the fishing industry (*e.g.,* Fisherman's Marketing Association and OR Trawl Commission) and has bipartisan support (co-sponsored by Sen. Smith and Sen. Murray).

INTERNATIONAL COALITION OF FISHERIES ASSOCIATIONS
June 11, 2003

Dear Members of the Senate Committee on Commerce, Science, and Transportation:

I am writing to you in anticipation of the June 12, 2003 hearing of the Senate Committee on Commerce, Science and Transportation regarding the status of global fishery resources. I am the Executive Secretariat of the International Coalition of Fisheries Associations (ICFA), a non-governmental organization of 22 national commercial fish and seafood trade associations from the leading fishing nations of the world.

ICFA is committed to the long-term sustainable use of living marine resources. ICFA believes that sustainable fisheries make an important contribution to global food security and supports robust fishery conservation and management systems based on sound science.

ICFA is concerned that a recently released scientific paper published by Drs. Myers and Worm in the magazine *Nature* declaring drastic overfishing of global fishery resources by commercial fishing has received undue attention as part of an aggressive campaign against commercial fishing by the Pew Charitable Trusts. It is important for you to know that government fisheries scientists and managers all over the world have severely criticized the assumptions, methods, and conclusions of the Myers & Worm paper. Many have stated that there are serious flaws in the claims, and those claims are deliberately misleading the public. Scientists concerned

about this are preparing detailed scientific critiques of recent claims and are seeking scientific publication. In fact, the attached letter to the editor of *Nature* magazine from six such scientists, whose work is acknowledged in the Myers & Worm paper, makes the point that the Myers and Worm analysis contributes nothing towards good fisheries management or the understanding of the world fishery stock status.

The Myers and Worm paper is simply not supported by a larger analysis of fisheries information. The United Nations Food and Agriculture Organization (FAO), the premier international authority on fisheries reports that most of the world's fisheries (72 percent) are healthy. ICFA wants this figure to be 100 percent and recognizes that some fish stocks do need to be re-built. But this problem needs to be kept in perspective, not sensationalized.

Fishery managers from international management bodies and countries all around the world are scratching their heads at the conclusions of the Myers and Worm paper when the fisheries under their jurisdiction are being sustainably managed, whether it be the rebuilt North Atlantic swordfish population under the International Commission of the Conservation of Atlantic Tunas (ICCAT) or the sustainable management of tunas in the Eastern Tropical Pacific by the Inter-American Tropical Tuna Commission (IATTC).

It is important to note that almost all pelagic fish—as well as fishing methods—are subject to international management regimes that include virtually all fishing nations, the best fisheries scientists, and important stakeholders such as fishermen and environmental groups. Considerable effort is invested by all of these players to ensure that the fisheries are healthy. These international management regimes are increasingly robust and are committed to long-term sustainable use of fishery resources. Where management regimes are lacking, international discussions are underway to develop appropriate new organizations and agreements. ICFA encourages the Committee to solicit input from these international conservation and management organizations in order to obtain an objective understanding of the situation.

Such an objective look at the situation with respect to the conservation status of pelagic species around the world will show that nearly all stocks of tuna are in a healthy condition. The only exceptions are bluefin tuna stocks, and these are very strictly regulated and recovering. Swordfish stocks and most stocks of billfish and sharks are also not overfished, although more scientific information is needed regarding the status of some species.

It is well-known to fishery scientists that virgin fish stocks will decline when they are fished, even significantly. The point of good conservation practice is to be able to fish the stocks at a sustainable level. The maximum sustainable yield—the maximum catch that can safely be taken from a stock year after year—occurs at about 30–40 percent of the unexploited population size. This conservation standard is accepted around the world and is reflected in virtually all strong conservation treaties, including the United Nations Convention on the Law of the Sea.

Myers and Worm lament the declining catches of giant fish—but from the point of view of good fisheries conservation the issue is the health and viability of the fish population. In fact, it is accepted by fisheries scientists that in most fisheries it is preferable to target large fish that have already reproduced and therefore contributed to the future population. Most conservation problems arise from catching too many juvenile fish before they have reached sexual maturity.

The FAO has developed a Code of Conduct for Responsible Fisheries adopted by all FAO member nations, as well as International Plans of Action to tackle many of the issues confronting nations striving to achieve good fisheries management. The FAO now has international commitments on plans to eliminate illegal, unregulated and unreported fishing activities, manage over capacity in fishing fleets, reduce the incidental catch of sea birds, and conserve and manage sharks.

The efforts of the Pew Charitable Trusts unreasonably deny the principle of sustainable use that has been agreed to by all United Nations member countries. The world faces a very real challenge of continuously increasing human populations and the need to secure enough food for the people of present and future generations. The United Nation's 1995 Kyoto declaration and plan of action on the sustainable contribution of fisheries to food security describes that challenge. The campaign now underway denies the needs of human beings to secure sustainable sources of food from the sea.

Conservation and management of fish and matters related to marine resources should be dealt with by UN FAO, Regional Fisheries Management Organizations, and government fisheries management authorities that have expertise and scientific knowledge. They have the technical capacity to ensure that sound, scientifically based, fair and reasonable decisions on fisheries management are made. The knowledge and experience of fishermen is an essential ingredient for management decisions by those institutions. Fishermen depend on sustainable fisheries and oceans.

They fully recognize the need to safeguard sustainable fish stocks and the marine environment for the maintenance of their livelihoods. Fishermen have no interest in depleting fish stocks—their long-term futures will only be assured by uniting with management agencies to ensure that sustainable fisheries are achieved.

ICFA is committed to working with all parties genuinely interested in the sustainable management of fishery resources to contribute to global food security. ICFA appreciates the opportunity to submit these comments to the Committee. To learn more about ICFA, contact *www.icfa.net.*

Thank you.

Sincerely,

JUSTIN LEBLANC,
Executive Secretariat.

ATTACHMENT

COMISION INTERAMERICANA DEL ATUN TROPICAL
INTER-AMERICAN TROPICAL TUNA COMMISSION
La Jolla, CA, 29 May 2003
REF: 0396

The Editor
Nature
Washington, DC.

Dear Sir/Madam,

The article by Myers and Worm "Rapid worldwide depletion of predatory fish communities" is disappointing because it does not give us the answers that we need to manage tuna and billfish populations. There are several questions that need to be answered before any conclusions can be made about the effect of declines in large pelagic predators: (1) has the catch per unit of effort (CPUE) declined substantially, (2) is the CPUE proportional to abundance, (3) what portion of the abundance is represented by CPUE, (4) what effect does the decline have on the species, (5) what effect does the combination of declines in all large pelagic species have on the ecosystem?

Myers and Worm have answered the first question, a trivial point, as it is generally recognized by fishery scientists that CPUE often substantially decreases in the initial phases of a fishery, especially for tuna longline fisheries. A substantial decrease is required based on currently accepted sustainable fisheries management practices (maximum sustainable yields occur at about 30–40 percent of the unexploited population size, with 40 percent chosen by many management agencies as a precautionary measure). It is also commonly believed that during this initial period of exploitation, CPUE decreases more rapidly than abundance. This is supported by the fact that the large declines during periods of often low catches and the recent large catches taken from populations at low CPUE levels are inconsistent with realistic population dynamics. In fact, if Myers and Worm plotted the catches on their Figure 1, much of the substance of their argument would disappear. In addition, catches and population abundance have been sustainable over several decades for many of the populations, corroborating current assessments of stock status.

Myers and Worm have not increased our understanding of world fishery stock status. They have only sensationalized the declines in CPUE (in many cases using unrepresentative selections of species and spatial strata). At best, they have motivated stock assessment scientists to focus more on exploring the reasons behind the large declines in CPUE in the initial stages of exploitation. Unfortunately, Myers and Worm did not provide us any insight into this problem. We still need to reconcile the inconsistency between CPUE, catch, and our understanding of population dynamics (see *http://www.soest.hawaii.edu/PFRP/* for more details about various hypotheses). As indicated by Myers and Worm, we also need to investigate the consequence of declines in groups of species, rather than just focusing on the species themselves. For example, what is the consequence to the ecosystem if we exploit all commercially-important species at their maximum sustainable yield levels? This is

an important point that is fully recognized and increasingly studied by tuna scientists.

Sincerely,

MARK MAUNDER,
Senior Scientist,
Inter-American Tropical Tuna Commission.

JOHN SIBERT,
Manager, Pelagic Fisheries Research Program,
University of Hawaii at Manoa.

ALAIN FONTENEAU,
Scientist,
French Institut de Recherches pour le Développment.

JOHN HAMPTON,
Manager, Oceanic Fisheries Program,
Secretariat of the Pacific Community.

PIERRE KLEIBER,
Fishery Biologist,
NOAA Fisheries—Honolulu Laboratory.

SHELTON HARLEY,
Senior Scientist,
Inter-American Tropical Tuna Commission.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. JOHN MCCAIN TO HON. JOHN F. TURNER

Question. Law of the Sea—Does the Administration support Senate ratification of the United Nations Convention on the Law of the Sea?

Answer. In 2001, the Administration publicly announced its support for U.S. accession to the United Nations Convention on the Law of the Sea (UNCLOS). The Administration's position has not changed.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. ERNEST F. HOLLINGS TO REBECCA LENT, PH.D.

Question 1. International Agreements on Sea Turtles—For the past three years, we've included report language in the CJS Appropriations bill that directs the State Department to negotiate strong international agreements to protect sea turtles. This is important, since U.S. fishermen have to comply with the Endangered Species Act—wherever they fish. What has the Administration done to carry out this direction? Why haven't more efforts been placed on *binding* agreements, especially with countries in the Pacific Rim?

Answer. The Administration developed a formal Course of Action under Section 202(h) of the Magnuson-Stevens Fishery Conservation and Management Act for addressing the bycatch of sea turtles in foreign longline fisheries and provided it in the National Marine Fisheries Service's (NOAA Fisheries) June 2001 Annual Report to Congress on International Bycatch Reduction Agreements (attached). The Course of Action includes working through all available Regional Fisheries Management Organizations, the United Nations Food and Agriculture Organization (FAO) Committee on Fisheries (COFI), as well as new and established bilateral fisheries agreements and forums.

We have been actively working to implement this strategy and engage other nations that participate in global longlining in focused discussions of the sea turtle bycatch problem. NOAA Fisheries convened a technical expert workshop in February 2003 that brought together participants from 19 countries and four intergovernmental organizations. The goal of the workshop was to discuss and develop recommended actions to address global incidental capture of sea turtles in longline fisheries with the hope that the implementation of these actions, where applicable, might reduce this particular threat.

One of the highest priority actions resulting from this meeting was a call for FAO to convene an intergovernmental technical consultation to address the issue of marine turtle bycatch in longline fisheries. The Committee on Fisheries met in Rome,

Italy, in February 2003 and agreed to hold such a consultation in 2004. NOAA Fisheries is actively working to ensure a robust examination of the problem and potential solutions at the upcoming Technical Consultation. In addition, we have raised the serious issue of bycatch of sea turtles in longline fisheries at a number of international fisheries meetings that have been held over the past several years. We have discussed the matter and called for increased cooperation and focused efforts on reducing bycatch in discussions with Chile, as well as regional fishery management organization forums including the International Commission for the Conservation of Atlantic Tunas (ICCAT) and the Inter-American Tropical Tuna Commission.

Of particular note are NOAA Fisheries directed research efforts to develop gear solutions that will significantly reduce or eliminate incidental capture of sea turtles, while retaining target species catch levels. NOAA Fisheries sponsored research in the northwest and eastern Atlantic is producing extremely promising results showing that the use of certain hook designs and usage of particular baits and baiting techniques can significantly reduce the bycatch of certain species of turtles. We are extremely hopeful that once these experiments are completed and fully peer reviewed that we can take the results and recommendations, with confidence, to the international longline fishing community and champion their global adoption.

Important multi-lateral agreements also exist that are specifically focused on sea turtle conservation. These include the Inter-American Convention for the Conservation and Protection of Sea Turtles (open for accession to all western hemisphere nations) and the Memorandum of Understanding for the Conservation and Management of Marine Turtle and their Habitats of the Indian Ocean and Southeast Asia. While the former is binding and the latter is non-binding, both provide forums for seeking agreements on reducing bycatch of sea turtles in longline fisheries. Both agreements are in their early stages of implementation, but we see promise in working through these agreements to achieve desired results on this front.

Question 1a. What information do we have about the impacts of foreign fishing fleets on sea turtles? Aren't many turtles that migrate to U.S. waters or to high seas fisheries used by U.S. fishermen impacted by foreign fishing fleets, for example, in the very waters of the Pacific where the Hawaiian longline fishing fleet is banned from fishing due to U.S. conservation laws?

Question 1b. What kinds of other incentives, or disincentives, is the Administration offering to bring these countries to the table? What about trade measures?

Answer. Global incidental capture levels of sea turtles in all foreign fishing fleets are not available, as many fisheries are not observed or are insufficiently observed to generate highly reliable capture rates. However, we believe that the cumulative global bycatch of sea turtles in the world's foreign fishing fleets (including all fishing gear that catches sea turtles) is having a significant impact on sea turtle populations. Sea turtles are highly migratory and these migrations (reproductive and developmental) may take them through international waters as well as the waters of many nations during their lifetime. Whenever longlining or other problematic fishing gear for turtles is deployed in areas inhabited by turtles, the potential for incidental capture exists. For these reasons, NOAA Fisheries is seeking solutions to reduce this bycatch. We are working diligently through all available channels to elevate this dialogue internationally and, through gear research, are hopeful that a technological solution will be found. We believe that technological solutions will sell themselves because employing an effective means of avoiding sea turtle-fisheries interactions would seem to be in everyone's interests. While the turtle excluder device (TED) trade measures have been shown to be effective in providing an incentive to adopt turtle safe gear, the Administration is not proposing such an approach for imports of longline caught seafood.

Question 2. Shark Finning—What have we done?—Three years ago, we passed the Shark Finning Prohibition Act, which banned shark finning by U.S. fishermen. The final bill included language requiring the State Department to identify nations responsible for shark finning, and immediately start negotiations to go about banning this practice worldwide.

Question 2a. We explicitly asked for a list of nations engaged in shark finning, but I don't see anything on this in Secretary Evans' report. Do we have this information?

Question 2b. Secretary Evans' report to Congress under the Shark Finning Prohibition Act states that annually the U.S. imported shark fins from at least 10 nations. Are any of these nations actually involved in shark finning?

Question 2c. What is the primary fishing method—longlining?

Question 2d. In 1999 FAO adopted an "International Plan of Action" on sharks. But four years later, how close are we to banning the practice of shark finning—or preventing shark declines—internationally?

Question 2e. What kind of impact does a U.S.-only shark finning ban have on the future of shark populations worldwide?

Answer. As required by § 6 of the Shark Finning Prohibition Act (Act), the Department of Commerce has submitted annual reports describing efforts to carry out the Act, the first in February 2002 and the most recent in December 2002. We are currently preparing the report that is due on January 1, 2004.

The Administration is committed to managing sharks on a sustainable basis in waters under our jurisdiction and to achieving the same goal internationally. Only a part of this concern is addressed by prohibiting shark finning, which we have done domestically, consistent with § 3 of the Act. This is why we strongly supported the development in 1999 of the Food and Agriculture Organization's International Plan of Action for the Conservation and Management of Sharks (IPOA) and completed our corresponding U.S. National Plan of Action in early 2001.

We have not been able to compile a reliable list of flag states whose vessels engage in shark finning, in large part because there is no single, official source for relevant data. It is probably true that a significant amount of shark finning, but by no means all, occurs in conjunction with longline fishing on the high seas. This is where most public attention is focused. However, the provisions of the Act relating to waters beyond U.S. jurisdiction are not limited to high seas areas, nor are they limited to longline fishing gear. It is likely that shark finning occurs within the jurisdictions of other countries and in conjunction with fishing gears other than longlines. Thus, it is a formidable task to determine with high confidence the incidence of shark finning in waters beyond our jurisdiction. Therefore, we are carrying out this task with appropriate care, given the implications set forth in § 5 of the Act, that our information is accurate and reliable. Also, due to the complexity of the shark fin trade, fins are not necessarily produced by vessels of the country from which they are exported. Factors such as availability of product, labor, markets, degree of processing, overseas contacts and astute trading can all play a role in determining the country of export.

There is no recognized international standard discouraging or prohibiting the finning of sharks, although, as indicated in the Department of Commerce's annual reports to Congress, we are striving to create one. With the direction and support provided by the Committee and the Congress, such a standard is beginning to emerge. The following countries and the European Union have adopted domestic measures that address shark finning in an effort to prohibit the practice: Australia, Brazil, Canada, Costa Rica, India, Nicaragua, Oman, and South Africa. In the case of Nicaragua, U.S. officials consulted regularly with authorities in Managua in drafting anti-finning legislation, and their final law is nearly identical to that of the United States. Mexico is in the process of developing comprehensive shark fishing regulations that may prohibit shark finning.

There is a misconception that the IPOA provides for explicit prohibition of this practice–it does not. The relevant provision, in Paragraph 22 of that document, says that National Plans of Action "should aim to . . . minimize waste and discards from shark catches in accordance with article 7.2.2.(g) of the Code of Conduct for Responsible Fisheries (for example, requiring the retention of sharks from which fins are removed. . . ." This language encourages full utilization and avoidance of wastage. Other provisions collectively call for the sustainable conservation and management of sharks, a standard to which we fully subscribe and the overarching reason we continue to encourage at every opportunity the development of National Plans of Action by nations that have not yet developed them and the full implementation of this generic standard as well as a prohibition on shark finning at the national, regional, and global levels.

In addition, NOAA Fisheries has worked closely with partners in the U.S. Fish and Wildlife Service and the State Department to promote shark conservation in the Convention on International Trade in Endangered Species (CITES). This has included successful efforts to regulate international trade in the world's two largest sharks (basking shark and whale shark) and promote greater communication between FAO and CITES on the IPOA-Sharks implementation.

The impact of the U.S. only shark finning ban on the future of shark populations worldwide is expected to be positive to the extent that other countries are joining the effort to ban shark finning (*e.g.,* European Union, Brazil, Australia, Canada, Costa Rica, India, South Africa, and others).

Question 3. Import Certification Scheme—U.S. fishermen are subject to all U.S. fishing laws in high seas areas, as well as the conservation requirements of the Ma-

rine Mammal Protection Act and the Endangered Species Act, even though they are fishing beyond the U.S. EEZ. Thus, U.S. fishermen are at a harvesting disadvantage as compared with largely unregulated high seas fleets, which are often not subject to harvest limits or required to minimize bycatch. At the same time, many countries are parties to international agreements and guidelines but are not effectively enforcing them with respect to their fishing fleets.

Wouldn't it be a good first step to adopt an import certification program, modeled on our shrimp-turtle law, that requires imports to be harvested in compliance with applicable international fishing agreements and guidelines? This is actually far less than we did in the shrimp-turtle law, that required imports to meet turtle protection standards comparable to U.S. laws.

Since so few strong international agreements have been reached that require countries to protect marine mammals and turtles from interactions with various types of fishing gear, what if we did a certification program just like the shrimp-turtle approach, but for all protected species and for all types of fisheries, and require that you can only export to the U.S. if you are in compliance with standards comparable to U.S. law?

Answer. If an international standard regarding conservation of marine mammals and other species were developed, it is possible that a workable import certification scheme could be constructed with assistance from other countries. The Catch Documentation Scheme for Patagonian toothfish of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) is a perfect example, which thus far has not been the subject of any complaints taken to the World Trade Organization by any of the members. However, it should be noted that U.S. industry has expressed concerns over the recent proliferation of different fishery product import certificates which confuse customs authorities worldwide and complicate day-to-day operations.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. ERNEST F. HOLLINGS TO HON. JOHN F. TURNER

Question 1. International Agreements on Sea Turtles—For the past three years, we've included report language in the CJS Appropriations bill that directs the State Department to negotiate strong international agreements to protect sea turtles. This is important, since U.S. fishermen have to comply with the Endangered Species Act—wherever they fish. What has the Administration done to carry out this direction? Why haven't more efforts been placed on *binding* agreements, especially with countries in the Pacific Rim?

Question 1a. What information do we have about the impacts of foreign fishing fleets on sea turtles? Aren't many turtles that migrate to U.S. waters or to high seas fisheries used by U.S. fishermen impacted by foreign fishing fleets, for example, in the very waters of the Pacific where the Hawaiian long-line fishing fleet is banned from fishing due to U.S. conservation laws?

Question 1b. What kinds of other incentives, or disincentives, is the Administration offering to bring these countries to the table? What about trade measures?

Answer. The Administration has made the issue of sea turtle conservation at the international level a high priority. We actively administer and enforce Public Law 101–162, relating to use of turtle excluder devices by shrimp trawl fleets in countries exporting shrimp to the United States. We are working to give full effect to the Inter-American Sea Turtle Convention, a legally binding agreement focused on the wide range of issues affecting sea turtle populations in the western hemisphere. We are working to implement the Indian Ocean and Southeast Asia sea turtle MOU to address sea turtle conservation throughout that region. We are working through regional fisheries management organizations (RFMOs) to address issues related to incidental capture of sea turtles in commercial fisheries. For example, the Inter-American Tropical Tuna Commission (IATTC) has adopted measures to reduce incidental capture and mortality of sea turtles in purse-seine fisheries. The IATTC is considering additional measures for purse-seine fisheries and is in the initial stages of considering steps to address such incidental capture in longline fisheries.

More can and must be done. Recently, considerable effort and resources have been devoted to incidental capture in longline fisheries, in both the Pacific and Atlantic Oceans. Before seeking to enter into negotiations for new legally binding agreements, however, we have some additional groundwork to do and we are actively engaged in that work. First, we need additional data on sea turtle bycatch. We need to know more about when and where sea turtle bycatch occurs geographically, seasonally, and within the water column (at what depth). Second, we need to work to develop further the gear modifications and fishing strategies that have been tested

with very promising, but as yet inconclusive, results. Together, these efforts are critical to developing targeted solutions that will be technically feasible and result in real and permanent progress in reducing sea turtle mortality.

In our view, the prospect of trade measures is of limited effectiveness because, unlike with shrimp trawl fleets, the United States is not the principal market for the fish caught by these longline fleets. Closing markets might send an effective political message, but the real and permanent progress we seek in reducing incidental mortality can only be advanced with the cooperation and participation of the fishing states with fleets engaged in longline fishing in the Pacific.

Through our efforts over the past year we have been building that support, with notable success. In February, the FAO Committee on Fisheries adopted a proposal, co-sponsored by the United States, to convene a policy-level meeting to address sea turtle mortality in commercial fisheries, with a particular emphasis on the problem of longline bycatch. We are currently working with the FAO and with these fishing states to ensure that this meeting is successful and achieves tangible results. In addition, we should and will seek to identify, as a matter of priority, interim measures that can be implemented in the short term to reduce incidental mortality. We will also continue working within the various fisheries organization to advance this issue on as many parallel tracks as possible.

Question 2. Shark Finning—What Have We Done?—Three years ago, we passed the Shark Finning Prohibition Act, which banned shark finning by U.S. fishermen. The final bill included language requiring the State Department to identify nations responsible for shark finning, and immediately start negotiations to go about banning this practice worldwide. We explicitly asked for a list of nations engaged in shark finning, but I don't see anything on this in Secretary Evans' report. Do we have this information?

Question 2a. Secretary Evans' report to Congress under the Shark Finning Prohibition Act states that annually the U.S. imported shark fins from at least 10 nations. Are any of these nations actually involved in shark-finning?

Question 2b. What is the primary fishing method—longlining?

Question 2c. In 1999 FAO adopted an "International Plan of Action" on sharks. But four years later, how close are we to banning the practice of shark finning—or preventing shark declines—internationally?

Question 2d. What kind of impact does a U.S.-only sharkfinning ban have on the future of shark populations worldwide?

Answer. As much of this question pertains specifically to the report to the Congress prepared by the Department of Commerce, National Marine Fisheries Service, and other technical issues under the purview of that agency, we note that the Department of State concurs with the response provided by Commerce to those parts of this question and will not repeat those answers here.

We reiterate the commitment of this Department, along with the Department of Commerce, to implement the provisions of the International Plan of Action for the Conservation and Management of Sharks. As noted in the Commerce response, effective action to address and reverse the decline of many shark populations requires a comprehensive approach based on the need for a number of necessary measures to ensure conservation and management of sharks. Within this context, the effect of shark finning on the conservation and sustainable use of sharks is an important issue that requires further action. At the same time, there are other issues beyond the finning issue that must be addressed if we are to sustain and rebuild shark populations in many areas.

Question 3. Import Certification Scheme—U.S. fishermen are subject to all U.S. fishing laws in high seas areas, as well as the conservation requirements of the Marine Mammal Protection Act and the Endangered Species Act, even though they are fishing beyond the U.S. EEZ. Thus, U.S. fishermen are at a harvesting disadvantage as compared with largely unregulated high seas fleets, which are often not subject to harvest limits or required to minimize bycatch. At the same time, many countries are parties to international agreements and guidelines but are not effectively enforcing them with respect to their fishing fleets.

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turtle approach, but for all protected species and for all types of fisheries, and require that you can only export to the U.S. if you are in compliance with standards comparable to U.S. law?

Answer. The shrimp-sea turtle approach that you mention has been highly successful precisely because it was carefully crafted to take into account specific situations with respect to the operation of shrimp trawl fleets and global trade in shrimp from all sources of production. While such catch documentation schemes can and have been successful, we believe their continued success and ability to withstand WTO challenges depends on this attention to detail. Whether a single catch certification scheme could be developed that would cover all situations with all fisheries is a question that requires very careful consideration. That said, the Administration has worked to develop and implement other successful catch certification schemes including ones for toothfish under the Convention for the Conservation of Antarctic Living Marine Resources (CCAMLR), as well as for bluefin tuna, swordfish and bigeye tuna under the International Commission for the Conservation of Atlantic Tunas (ICCAT) and more recently in the Inter-American Tropical Tuna Commission (IATTC). These schemes have the added advantage of being multilateral in nature and agreed among all parties to these international organizations. In our view, these tailored multilateral approaches provide the best approach to catch certification schemes that can withstand WTO scrutiny.

Question 4. Import Bans under Pelly Amendment—Under the so-called "Pelly Amendment" to the Fishermen's Protective Act (22 U.S.C. 1978), the President may prohibit any imports from a country if the Secretary of Commerce has certified that nationals of the foreign country conducted fishing, or takings or trade of endangered or threatened species in a manner that "diminishes the effectiveness" (*e.g.,* violates or undermines) of international agreements. However, the U.S. has rarely used the Pelly import provision, although the Secretary of Commerce has made its finding in numerous cases.

How often has the President fully exercised the "Pelly Amendment" to the Fishermen's Protective Act, and banned imports from countries that the Secretary of Commerce has found are violating international fishing or protected species agreements?

Answer. Since its enactment in 1969, the Secretaries of Commerce or Interior have certified countries under the Pelly Amendment on 36 occasions for diminishing the effectiveness of an international fishery conservation program or for diminishing the effectiveness of any conservation program for endangered or threatened species. In 1994, the President prohibited imports of certain fish and wildlife products from Taiwan for diminishing the effectiveness of the Convention on International Trade in Endangered Species of Wild Fauna and Flora based upon certification by the Secretary of the Interior. On three occasions (former Soviet Union (1985) and Japan (1988 and 2000)), certifications under the Pelly Amendment by the Secretary of Commerce for diminishing the effectiveness of the International Whaling Commission (IWC) also resulted in certification under the Packwood Amendment to the Magnuson-Stevens Fishery Conservation and Management Act. The Packwood Amendment requires the Secretary of Commerce to reduce allocations to fish in U.S. waters by not less than 50 percent. Such reductions were applied to the former Soviet Union in 1985 and to Japan in 1988, but not in 2000 against Japan because that country was no longer fishing in U.S. waters.

Question 5. Why hasn't the President fully exercised this provision?

Answer. The authority to prohibit imports under the Pelly Amendment is discretionary. Generally speaking, Presidents have said they were not imposing import prohibitions under the Pelly Amendment because they saw other avenues as more effective in achieving desired results. Indeed, certified nations have often modified the behavior that led to Pelly certifications without the imposition of import prohibitions.

Question 6. Pelly says that the President may prohibit any imports from a country if the Secretary of Commerce has certified that nationals of the foreign country have conducted fishing, or takings or trade of endangered or threatened species in a manner that "diminishes the effectiveness" of international agreements. So why haven't we taken action to ban imports of important products from these nations—like rice from Japan—each time they kill whales because of the International Whaling Commission's ban on commercial whaling?

Answer. The response provided to the second question also addresses the above question.

Question 7. Norway recently sold whale meat to Iceland for the first time in 14 years, undermining the International Whaling Commission's ban on commercial whaling, and the ban on trade of such species under CITES. Does the Department of Commerce plan to certify this action under the Pelly Amendment?

Answer. The decision whether to certify Norway for exporting whale meat to Iceland rests with the Secretary of Commerce and the Secretary of the Interior. Norway's export of whale meat to Iceland is currently under review by the Department of Commerce.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. ERNEST F. HOLLINGS TO PATRICK J. SULLIVAN, PH.D.

Question. Import Certification Scheme—U.S. fishermen are subject to all U.S. fishing laws in high seas areas, as well as the conservation requirements of the Marine Mammal Protection Act and the Endangered Species Act, even though they are fishing beyond the U.S. EEZ. Thus, U.S. fishermen are at a harvesting disadvantage as compared with largely unregulated high seas fleets, which are often not subject to harvest limits or required to minimize bycatch. At the same time, many countries are parties to international agreements and guidelines but are not effectively enforcing them with respect to their fishing fleets.

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Since so few strong international agreements have been reached that require countries to protect marine mammals and turtles from interactions with various types of fishing gear, what if we did a certification program just like the shrimp-turtle approach, but for all protected species and for all types of fisheries, and require that you can only export to the U.S. if you are in compliance with standards comparable to U.S. law?

Answer. Probably the best first step would be to demonstrate how to do this by example here at home. Good domestic resource management will result greater availability of resources as well as lower risk to the environment. Economically it makes sense to do this. If we manage our resources well, then we will have resources to harvest at a time when others will not, the price will go up as demand increases, and what U.S. fishermen will have to endure in the short run as a harvesting disadvantage will result in a windfall as the resource tables turn. When others see the advantages that result from good management measures they will follow suit. Imposing a certification scheme may work, but it is a stick not a carrot. If we go forward with a certification scheme, then we should try to learn from what worked and what did not with the present schemes especially here at home. For example, are successful schemes best developed and executed through government and law or through actions articulated by NGOs or private organizations? How broad a brush will be used in defining compliance? Too broad a brush will limit appropriate resource utilization practices. Too fine a brush will result in complicated legislation and will increase costs and enforcement concerns. My suggestion is that we work to straighten out our own backyards through the development of good science and policy as a precursor to straightening out the world's. We should be able to export successful management practices.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. DANIEL K. INOUYE TO REBECCA LENT, PH.D.

Question 1. Dr. Lent, in your written statement you say that the U.S. is a leader in longline gear technology development and transfer as it relates to sea bird and sea turtle research. Now that the U.S. has developed technologies to alleviate bycatch by longline fleets, what steps are being taken to export those technologies?

Answer. Preliminary results from cooperative research efforts on the Grand Banks have shown that larger circle hooks can significantly reduce sea turtle catch in the pelagic longline fishery (*e.g.,* with mackerel bait, the number of loggerhead sea turtles caught was reduced by 65 percent in one trial). Unlike "J" hooks, which are often swallowed, circle hooks often become anchored in the mouth, and therefore hook extraction is easier and also safer for sea turtles (see attached file). De-hooking devices and methods have been developed for sea turtles that are too large to be boated, and those small enough be brought aboard (see attached file "de-hooking etc.," which shows devices used to remove hooks and line from turtles caught on pelagic longlines.) Long handled LaForce line cutters and long handled Aquatic Release Corporation (ARC) de-hookers are used to remove gear on turtles not boated (see figure A). The Epperly Biopsy Pole is used with a stainless steel corer to take tissue samples for genetics. Short handled de-hookers are used to remove hooks

from animals that are boated (see figure B). Miscellaneous tools have been developed to remove line, hooks, or the barb or eye of hooks on boated turtles (see figure C). A dip net is used to bring small (<50 kg) turtles aboard (see figure D). Mouth openers and gags are used on boated turtles to allow access to internal hooks (see figure E).

NOAA Fisheries gear experts introduced the bycatch reduction technology described above to the international fishing community and resource managers at the International Fisheries Forum in Honolulu (2002), and at the NOAA-sponsored International Technical Expert Workshop on Marine Turtle Bycatch, in Seattle, WA (2003). As a result of these meetings, our efforts to transfer these technologies have increased, and requests for international technical assistance continue. NOAA Fisheries recently transferred circle hooks to Chile, and transferred circle hooks, dehooking devices and line cutters to Brazil. We have received keen interest in both bycatch reduction technology and training from Mexico, Japan, Australia, New Zealand and Peru. We are also are providing training and de-hookers and circle hooks for field testing to Ecuador. Our scientists have provided technical advice to Costa Rica on implementing TED research principles using circle hooks. These technological transfers have been supported by the ongoing cooperative work of the pelagic longline industry, private sector gear specialists, and scientists from NOAA Fisheries. As new technological solutions are discovered, we will continue to work to export these technologies to other fishing nations.

The situation in the case of seabirds is a bit different because, even as the FAO International Plan of Action was being adopted in 1999, there was an accepted "toolbox" of technological solutions that had proven utility in reducing the incidental catch of seabirds in longline fisheries in different geographical areas. The International Plan itself was a compilation of these solutions and an urging that the international community select from the toolbox those solutions that would work in a particular area. Our approach regarding the export of these solutions is to support vigorously the development of National Plans of Action on seabirds and participation in international meetings and workshops to promote the free transfer of technological solutions.

Question 2. During oral testimony, it was said many times that the U.S. must lead by example to encourage other countries to comply with conservation efforts, yet our domestic fleets continue to suffer economic devastation while foreign vessels ignore most attempts at international fishing management. What is the Administration doing to level the playing field for our domestic fleets?

Answer. History has shown that the U.S. Congress establishes living marine resource management law and policy for our country that often become the law in other countries. This requires us to lead by example most of the time. The Administration encourages other countries and the regional fisheries management organizations (RFMOs) in which they participate to follow these examples and implement these laws and policies with as little lag time as possible and to ensure that existing conservation rules are effectively enforced. In general terms, this is what we have done in negotiating the Code of Conduct for Responsible Fishing, the Compliance Agreement, the 4 International Plans of Action, and the United Nations Fish Stock Agreement at the global level; implementing these principles through RFMOs at the regional level; and encouraging their implementation through our various bilateral fisheries arrangements at the national level. As described above, we are making significant progress in sharing by-catch reduction technology and encouraging its use by other fleets.

ATTACHMENT

Course of Action to Promote International Agreements that Address the Need to Reduce Sea Turtle Bycatch in Foreign Longline Fisheries

General

1. The United States recognizes the critical need to reduce incidental capture of marine turtles in longline fisheries, to evaluate other sources of fishing mortality, and to take appropriate action to minimize turtle bycatch in international fisheries.

2. The United States has taken steps to quantify marine turtle bycatch and to seek solutions to reduce the international problem of incidental capture of marine turtles. The United States supports the sharing of information on the incidental capture of sea turtles in all fishing gear. The United States recognizes data collection on marine turtle bycatch is critically important to understand the impacts these activities may have on turtle populations. The United States hopes that by sharing its domestic information, it will encourage and support existing bilateral efforts as

well as facilitate new regional and global efforts to collect and share turtle bycatch data and encourage cooperative research.

3. The United States is proceeding to identify and evaluate gear and/or fishing technique modifications that may serve as an alternative to fishery closures to reduce sea turtle bycatch in longline fisheries and should request and encourage the international cooperation necessary to achieve this goal.

Global

4. The United States intends to provide a summary report to the Food and Agriculture Organization of the United Nations (FAO) for distribution to FAO members on the bycatch of marine turtles in U.S. longline fisheries and the findings of its research as well as recommendations to address the issue.[1]

5. At the Twenty-Fourth Session of the FAO Committee on Fisheries (COFI), the United States distributed a concept paper for an international technical experts' meeting to evaluate existing information on turtle bycatch, to facilitate and standardize collection of data from those fisheries that are likely to interact with marine turtles, to exchange information on experimentation with longline gear relative to turtles and target species, and to identify and consider solutions to reduce turtle bycatch. There were, however, differing views on how to address the conservation problems of sea turtles. COFI agreed that an international technical meeting could be useful despite the lack of agreement on the specific scope of that meeting. The United States concluded that the international technical experts' meeting would be most productive if focused on problems associated with a specific gear type. A prospectus for a technical workshop to address longline bycatch of marine turtles is included in this Report to Congress.[2] However, this does not preclude the need for other gear-specific international workshops in the future.

Regional

6. The United States will initiate efforts through regional fishery management organizations and other regional fisheries and conservation bodies, as appropriate, *e.g.,* the International Commission for the Conservation of Atlantic Tuna, the Asia Pacific Fisheries Commission, and the mechanisms to be established under the Inter-American Convention and the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific, to call attention to the international problem of sea turtle bycatch in fisheries, particularly longline fisheries, and promote international cooperative efforts to collect information on the incidence of sea turtle bycatch and gear and/or fishing technique modifications that may ameliorate the problem. We will promote our technical workshop as the forum that should receive and consider such information. The United States will also pursue potential co-sponsors for the technical workshop.

Bilateral

7. The United States will use relevant bilateral relationships to encourage the collection and sharing of information and the eventual implementation of means of reducing sea turtle bycatch in fisheries, particularly longline fisheries. For example, we can follow up on Mexico's commitment to share observer data from its Pacific swordfish and shark fisheries and on Chile's 1999 undertaking to collect information on bycatch of sea turtle in its swordfish fishery. This topic will also be suggested for the agendas of bilateral meetings with Japan, Korea, Taiwan, Canada, the European Community, and other nations with fisheries of concern.

8. The United States will demarche any flag states with a significant longline fleet, and Taiwan, to emphasize the international nature of this problem, to describe the steps the United States is taking to address it, and to request information relative to sea turtle bycatch in longline fishing according to a specification that will be developed. We should also make a similar demarche to the Executive Secretaries (or equivalent) of regional fisheries management organizations or arrangements in whose area of operation longline fishing occurs to request any relevant information held by those organizations.

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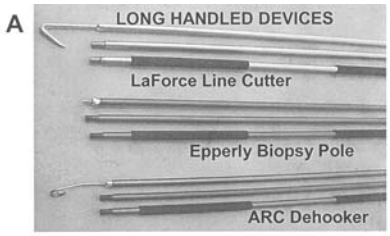
[1] The United States provided this summary to the Twenty-fifth Session of the Committee on Fisheries, Rome, February 24–28, 2003.

[2] The Technical Workshop was held in Seattle, February 2003.


A
LONG HANDLED DEVICES
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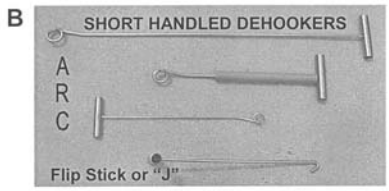
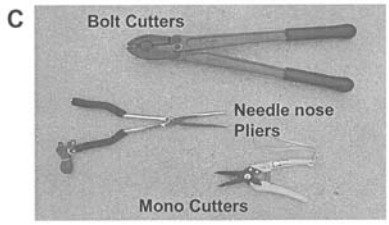
Epperly Biopsy Pole
ARC Dehooker


B
SHORT HANDLED DEHOOKERS
A
R
C
Flip Stick or "J"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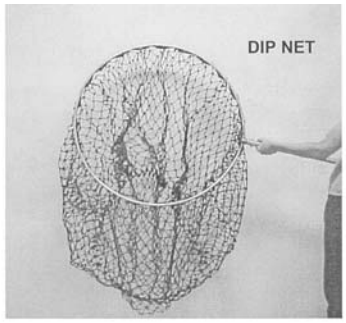
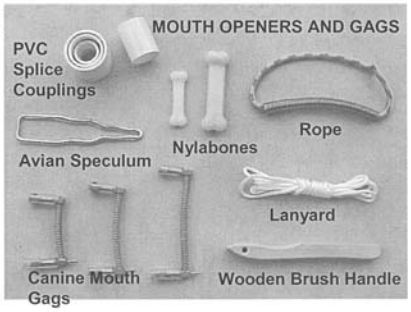
Needle nose
Pliers
Mono Cutters


D
DIP NET


E
MOUTH OPENERS AND GAGS
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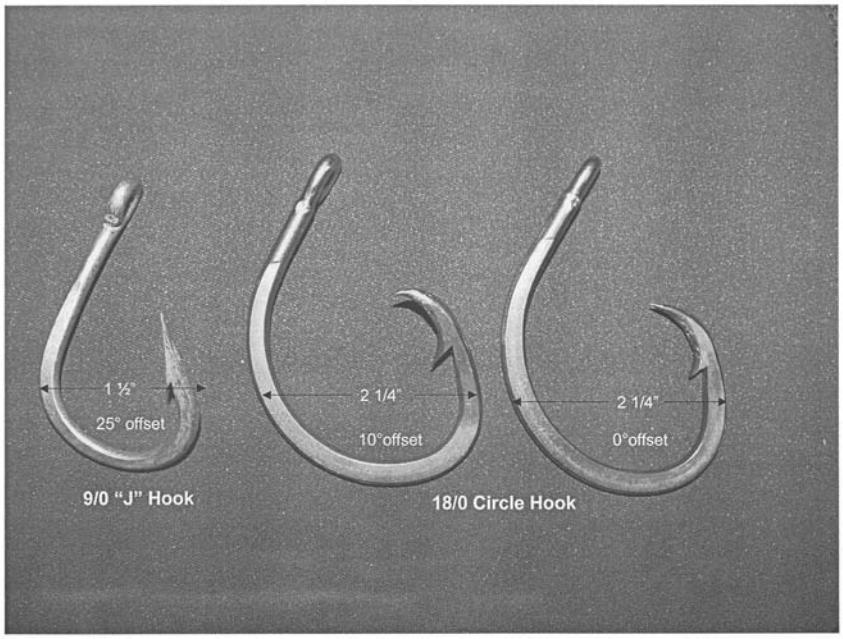
Splice
Couplings
Rope
Nylabones
Avian Speculum
Lanyard
Canine Mouth
Gags
Wooden Brush Handle


1 ½"
25° offset
2 1/4"
10°offset
2 1/4"
0°offset
9/0 "J" Hook
18/0 Circle Hook

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. DANIEL K. INOUYE TO ADMIRAL THOMAS H. COLLINS

Western Pacific EEZ Boundaries

Question. Admiral Collins, in your oral testimony, you stated that the U.S. Coast Guard has only one cutter dedicated to patrolling the Bering Sea U.S. EEZ boundary. What dedicated platforms are being used to patrol the extensive Western Pacific EEZ boundaries?

Answer. Elimination of Exclusive Economic Zone (EEZ) encroachments is our top fisheries enforcement priority. In assignment of our cutter and aircraft resources, however, this priority must compete with our other fisheries enforcement priorities as well as our other CG missions. In the Bering Sea, where we have a consistent and significant threat in place, *i.e.,* 20–30 foreign factory trawlers within five miles of our EEZ for approximately six months of the year, we dedicate a cutter to patrolling this area and augment these cutter patrols with occasional C–130 flights. The threat against our Western Pacific EEZ boundaries is not nearly as predictable or as constant. This makes enforcement of these boundaries no less important, but it does make dedicating a cutter to this area inefficient and ineffective. The Coast Guard patrols this wide area through occasional C–130 flights.

The EEZs surrounding the Hawaiian Islands and the Western Pacific island territories comprises over 40 percent of the 3.36 million square mile U.S. EEZ. A multinational fleet of fishing vessels target highly migratory fish stocks, including tuna in and around these waters. These fleets migrate from year to year as the stocks are affected by Pacific El Niño events. The vast areas, distances, and changing nature of these fishing fleets make surveillance very resource-intensive. We are committed to protecting these and all of our EEZ boundaries. Continued support of the Coast Guard's Deepwater recapitalization efforts is critical to improving the prosecution of this mission. The Deepwater program will provide highly capable cutters and aircraft, including unmanned aerial vehicles, with the requisite speed and endurance to patrol these regions more efficiently.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. DANIEL K. INOUYE TO HON. JOHN F. TURNER

Question 1. What sorts of actions can Congress take to assist efforts to make the international community take action and make real contributions to conservation efforts, rather than the empty rhetoric it currently offers?

Answer. In recent several years, the United States has been at the forefront of efforts to negotiate and implement a new international legal framework governing the conservation and management of the world's living marine resources and give teeth to internationally agreed measures. Two key parts of this framework are the United Nations Agreement for Straddling Fish Stocks and Highly Migratory Fish Stocks (Fish Stocks Agreement) and the Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas (Compliance Agreement). These agreements entered into force in December 2001 and April 2003, respectively. Together, these agreements provide strong tools to address issues that have too long been left unattended and we are now working to implement those tools in regional fisheries management organizations such as ICCAT, IATTC, NAFO, CCAMLR, and others. Congressional support for these agreements, including rapid Senate action for advice and consent to ratification, has been vital to our efforts in this regard and will continue to be so in the future. This includes congressional support for full funding for U.S. payments to regional fisheries management organizations to which the United States is a party.

This new international framework and agreements will only be effective to the extent that vessels and nations comply with them and implement faithfully their provisions. For this reason, the United States and other countries have been focusing recent efforts on controlling illegal, unreported and unregulated fishing. The United States along with other countries pushed for and achieved negotiation of an International Plan of Action (IPOA) to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing. The IPOA calls on each country to prepare its own national plan of action on IUU fishing. The United States is in the final stages of preparing its national plan of action. The plan will contain recommendations for possible changes to U.S. legislation to strengthen both national and international efforts to control IUU fishing. We welcome an opportunity to work with the appropriate congressional offices as this work progresses.

Question 2. What is the Administration doing to level the playing field for our domestic fishing fleets, particularly when our fleets are at a disadvantage as compared

to the largely unregulated foreign high seas fleets, and the U.S. has some of the lowest tariffs in the world for fish imports.

Answer. The Administration is working across the board at the global, regional, subregional and bilateral level to achieve equity and a level playing field for U.S. fishermen. In the Western and Central Pacific Ocean, for example, (including the waters around the state of Hawaii) U.S. fishermen operate at a high standard with respect to conservation and management measures, data collection, observer coverage, vessel monitoring systems, and other requirements. The recently negotiated Western and Central Pacific Fisheries Convention establishes similar requirements for all countries fishing in the region that are party to the agreement. Our goal is to ensure that all major fishing players join the convention and that all such states and entities operate under the same set of rules. The Administration takes the same approach in each regional fishery management organization to which the United States is a party and is actively and aggressively seeking ways to address instances where countries or vessels operate outside the agreed rules.