Committee on Resources

Subcommittee on Fisheries Conservation, Wildlife and Oceans

Witness Statement

WRITTEN TESTIMONY OF

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INTRODUCTION

Good morning, Mr. Chairman and members of the Subcommittee. My name is Sally Yozell and I am the Deputy Assistant Secretary for Oceans and Atmosphere for the Department of Commerce. I would like to thank you for the opportunity to testify today on legislation protecting the Nation's coral reefs. The Coral Reef Conservation and Restoration Act of 1999 will further our ability to protect our Nation's sensitive coral reef resources. We at NOAA appreciate the interest in, and strong support for, coral reefs demonstrated by the Committee Members as reflected in H.R. 2903.

CORAL REEF CONSERVATION

Coral reefs are extremely valuable for a variety of reasons, including the fact that they support thousands of jobs and billions of dollars in U.S. economic activity every year from tourism, recreation and fishing. Coral reefs are probably the most valuable - and the most threatened - marine ecosystems on the planet.

The Administration strongly supports comprehensive legislation that increases conservation and restoration of coral reefs and coral reef ecosystems, and to that end, H.R. 2903 is a step forward in addressing the coral reef crisis.

Coral Reefs: a unique and valuable resource

Worldwide, coral reefs cover less than 1 percent of the ocean floor. They are some of the largest and oldest living structures on earth. Like tropical rainforests, they contain some of the greatest biodiversity on the planet. Coral reefs are home to 25% of all marine fish species and thousands of other species. They include some of the most diverse habitat on earth and also some of the most beautiful areas.

The U.S. has significant coral reefs in the Atlantic, Caribbean, Gulf of Mexico, and the Pacific. Coral reefs in U.S. waters cover approximately 17,000 square kilometers and include:

• The Florida Keys Coral Reef System, the third largest barrier reef system in the world stretching over 360 kilometers in length. This System is home to over 5500 marine species and supports the world's largest sea grass beds (Florida Bay);

• Diverse Caribbean coral reefs in Puerto Rico and the U.S. Virgin Islands;

• Coral reefs off the coast of Texas in the Gulf of Mexico;

• Extensive reefs of the western Pacific islands of Hawaii, Guam, American Samoa, and the Commonwealth of the Northern Marianas, where over 85% of all U.S. reefs are located.

In the U.S., coral reefs have significant economic and social value. For example, reefs are the foundation for billions of dollars in economic activity through fishing and tourism:

• Over 50% of all Federally managed fisheries species depend on coral reefs for some part of their life;

• The annual value of reef-dependent recreational fisheries exceeds $100 million per year;

• U.S. coral reefs are the number one diver destination in the world;

• Tourism related to coral reef ecosystems produces over $1.2 billion per year in the Florida Keys and $800 million per year in Hawaii ALONE.

Coral reefs are valuable sources of new medicines and biochemicals. Thousands of unique chemicals have already been described and the exploration has just begun.

Coral reefs also help prevent shoreline erosion and provide protection from waves and storms for millions of people and their coastal communities.

All of this is now at risk.

Recent studies suggest that close to 60% of the world's coral reefs are being degraded or destroyed by human activities. Ten percent of the reefs may already be degraded beyond recovery.

Many reefs - in the U.S. as well as around the world - have been destroyed or seriously degraded by a powerful combination of stresses including polluted runoff, sedimentation, fishing impacts, ship groundings, and new diseases, especially near coastal areas with large populations. Under natural conditions coral reefs are quite resilient and can recover from natural disturbances such as storms and changes in sea level. However, these combined impacts overwhelm the corals and other reef species. Some of the pressures facing coral reefs include:

• Pollution and sedimentation, resulting especially from polluted run-off

• In the Caribbean, over 20% of the reef-dependent fisheries are considered over-fished and the status of most others is unknown;

• Every year hundreds of vessels strike U.S. coral reefs causing significant damage that goes largely unrepaired. In the Florida Keys alone, it is estimated that there are approximately 400 small vessel groundings each year.

• Large areas of our reefs are littered with accumulations of ocean-borne debris, such as fishing nets, plastic bottles and other objects either discarded deliberately or otherwise lost from ships. This debris damages the reef structure itself and poses a constant peril to highly endangered resources such as the Hawaiian monk seal, sea turtles, and seabirds.

The effects of these pressures are evident and growing:

• There is an increase in the number and variety of coral diseases in the Florida reefs in the last 5 years;

• In Florida and Caribbean reefs, two of the most common shallow water coral species have been greatly reduced with losses of over 95% in some areas.

• In some Hawaiian reefs, many of the most abundant reef fish species have declined by 40 percent over the past 20 years.

• Also, the number of reef-dependent species considered at risk of becoming threatened or endangered is increasing.

• Last year we observed unprecedented levels of coral bleaching associated with abnormally high sea surface temperatures;

I wish I could give you a more comprehensive assessment of the condition of U.S. coral reef resources. Unfortunately the data is not available because we lack a comprehensive Federal program to map, monitor, protect, manage and restore the Nation's coral reefs. For example, NOAA estimates that less than 10% of the nation's coral reefs have been adequately mapped and characterized to determine their current condition. Even fewer are adequately monitored to track their health.

The need for action

The nation's reefs cannot withstand this onslaught of insults. Given the high level of degradation and our understanding of the reef recovery process, we must take action now.

Action is needed in order to save this precious and valuable resource. The social and economic costs to current and future generations will be severe. This is a battle we cannot afford to lose.

Our state and territorial partners are in desperate need of maps and other tools, scientific information, and resources to implement coral reef monitoring programs, track the health of their reefs, and take action to protect and restore them. Resource managers lack basic information on the underlying factors regulating

coral reef ecosystems. Providing this kind of assistance is critical because over 60% of all U.S. coral reefs are within State or territorial waters, and these are the ones most at risk.

We can work to change this situation. By helping states and territories implement effective reef management actions through mapping, assessing, monitoring, protection, management, research and restoration, we can build a comprehensive effort to regularly track and improve the health of U.S. coral reefs.

In many cases we know the problems and how to address them. We must work at local, state, territorial, and National levels to reduce the impacts of coastal water pollution, fishing impacts, vessel strikes and other serious threats to our reefs.

As participants in the U.S. Coral Reef Task Force, Federal agencies, states and territories are developing a national action plan to prioritize threats to reefs and take action to address them. The Task Force was established by President Clinton's Executive Order 13089 on coral reef protection signed at the National Ocean Conference in June 1998.

Even though the Task Force Action Plan is still in draft form, the Task Force has already identified many of the key threats and possible solutions as called for in the Executive Order. Priority actions proposed for by the Task Force over the next year include (if resources are available):

1. Launching a comprehensive effort to map and assess U.S. coral reefs in the Pacific;

2. Reducing land based sources of sedimentation and polluted runoff through nonpoint source pollution programs and smart growth strategies;

3. Establishing a coordinated network of coral reef protected areas, building on existing sites and activities;

4. Implementing a coordinated reef monitoring program;

5. Reducing unsustainable extractive uses of important coral reef species through fisheries management and addressing the problem of trade-driven overexploitation; and

6. Strengthening local and regional efforts to protect and manage reefs by supporting the U.S. Islands Coral Reef Initiative.

NOAA Actions

NOAA's FY 2000 budget request included $12 million to directly support these actions and begin fulfilling the Executive Order for conservation and restoration of coral reefs. I was disappointed to learn that the conference report on the Commerce, Justice, State and the Judiciary appropriations bill included only $2 million of the $12 million NOAA requested. With this level of funding, important work related to mapping, restoration and protection of our coral reefs will go undone.

NOAA has a variety of roles and responsibilities concerning coral reef resources. NOAA has undertaken limited programs to begin mapping, monitoring, assessing, protecting, managing and restoring coral reefs. The Coastal Zone Management Program, National Marine Sanctuary Program, the national and regional Fishery Management programs, the Damage Assessment and Restoration Program, and the Sea Grant Program have all been actively involved with coral reef conservation actions. Our National Environmental

Satellite, Data, and Information Service has also provided valuable remote sensing information for coral reef mapping. These activities are all undertaken in a piecemeal manner with the limited resources. The goal of the 2000 request was to galvanize our national program while also working with states and territories.

This past year, NOAA, along with a number of other Federal, state and local agencies and nonprofit agencies, received recognition for the work done to clean up the coral reefs in the northwestern Hawaiian Islands. The effort involved NOAA, the U.S. Coast Guard, the U.S. Navy, U.S. Fish and Wildlife Service, the Hawaii Sea Grant program, the Hawaii Coastal Zone Management Program, and the Center for Marine Conservation. Additional materials and technical assistance was provided by Browning Ferris Industries of Hawaii, Alaska Sea Grant, and Noreaster Trawl of Bainbridge, Washington. The result was the removal of 12 tons of debris from the fragile and valuable coral reefs of this area, which support essential habitat for the endangered Hawaiian monk seal. These reefs are also essential habitat for numerous other marine species and are critical to the overall archipelago marine ecosystem. Based on what was learned during this clean-up, NOAA will follow up with workshops to address long term solutions to the marine debris problem, as well as preventative measures.

NOAA is also involved in a precedent-setting effort to remove grounded fishing vessels in American Samoa and restore the coral reefs injured there. I would like to commend the Coast Guard's efforts to address hazardous materials issues presented by these abandoned vessels in American Samoa. During a 1991 hurricane, nine longline fishing vessels came aground on the coral reef flats in Pago Pago Harbor. In August of this year, the United States Coast Guard (USCG) initiated a response action to remove oil and other hazardous materials remaining on the vessels, with the objective of reducing or eliminating the threat of a pollutant release.

Complementing the USCG's activities, NOAA assessed the harm to the coral ecosystem from the response actions. To address the injury, NOAA and other natural resource trustees developed an emergency restoration plan under the Oil Pollution Act of 1990. NOAA received authorization to expend $6.6 million from the USCG Oil Spill Liability Trust Fund (OSLTF) to implement the plan. The restoration monies will be spent on: repairing gouges in the reef substrate; conducting coral transplants; conducting complete vessel removal to allow natural recovery; validating a source of long-term monitoring data on Pacific coral systems; and monitoring of the restoration efforts. This effort is notable because it is the shortest time frame for development of a restoration plan; and it involves extremely close coordination between a natural resources restoration action and a USCG response activity. NOAA has placed a high priority on restoring the injured coral reefs in Pago Pago Harbor and believes this effort will provide important insights into subsequent coral restoration activities in the Pacific.

NOAA also directly and indirectly manages and protects a number of important coral reef ecosystems in the National Marine Sanctuaries, such as the Florida Keys National Marine Sanctuary (NMS), Flower Garden Banks NMS, Hawaiian Islands Humpback Whale NMS, and the Fagatele Bay NMS. NOAA also manages coral reef habitat around the nation through the fishery management plans and the essential fish habitat plans.

NOAA and its Federal partners e.g., National Aeronautics and Space Administration, U.S. Geological Survey, National Park Service have been mapping SELECTED coral reef ecosystems for several years. However, no consistent or nationwide effort has been undertaken for mapping using remote sensing technologies.

The National Undersea Research Program has also provided valuable data and information on these fragile

coral reefs. The Caribbean Undersea Research Center in the Bahamas has recently conducted projects to determine how to use satellite data to map reefs. The Southeast US and Gulf of Mexico Research Center has studied the effects of ultraviolet radiation on coral reef health and monitors coral health in the Florida Keys National Marine Sanctuary. The Hawaii NURP Center has been monitoring reefs in Hawaii and working to understand the interaction between endangered monk seals and coral habitat.

H.R. 2903 THE CORAL REEF CONSERVATION AND RESTORATION ACT OF 1999

I would like to specifically turn to H.R.2903, the Coral Reef Conservation and Restoration Act of 1999, as introduced by Representative James Saxton.

H.R. 2903 proposes authorization for important new resources to begin addressing the coral crisis. It would establish a competitive grants program to make these resources available to governmental and nongovernmental entities at local, state and territorial levels where direct actions can be taken to protect individual reefs. NOAA strongly supports both the grant mechanism and the focus of the grant program towards on-the-ground efforts such as monitoring, management, education and restoration.

There are several additional elements which could be added that in our view would make H.R. 2903 a more comprehensive mechanism to address the coral crisis.

A national program is an important part of any comprehensive approach to conserve coral resources and should be included in the bill. States, territories, and localities are counting on the Federal government to provide critical support. For example, NOAA can provide the tools for mapping and assessment, monitoring and technical assistance, management, and marine protected areas, which is often not available at the local level. A national program would also enable NOAA to coordinate with our international partners and provide support and assistance to coral reef conservation efforts during and after an emergency.

Work is already being done to enhance coral reefs through marine protected areas in the National Marine Sanctuary Program and through the Fishery Management Plans with the limited resources available. For example:

- The South Atlantic Fishery Management Plan for corals prohibits the taking of hard coral and live rock. An Experimental Closed Area also protects the ivory tree coral, restricts fishing for snapper/grouper species and the anchoring of fishing vessels within this area. Soft coral harvesting is allowed but quotas are used to limit the take.

- The Caribbean Fishery Management Plan prohibits the harvest of hard corals, soft corals, and live rock and gear restrictions are placed on the taking of other invertebrates to protect coral reefs from physical and chemical damage. There is also no anchoring or fishing by fishing vessels to totally protect reef resources in a 10 square mile marine protected area off St. Thomas. The Regional Council is also proposing a coral reef ecosystem management plan to protect coral reefs.

- The Western Pacific Fishery Management Council is also well underway in developing a management plan to protect coral reef ecosystems.

- Many other fishery management plans, while focused on finfish species, also include provisions that protect coral reefs and their ecosystems

• As the Essential Fish Habitat provisions of Magnuson-Stevens are more fully developed, NOAA's ability to protect and conserve these valuable habitats will dramatically increase if the resources are available to do so.

• NOAA is also conducting pioneering work to evaluate the effectiveness of marine zoning over an extended year period within some of the National Marine Sanctuaries. After just one year of protection, the Florida Keys National Marine Sanctuary's twenty-three no-take zones are showing signs of restoring spiny lobster and fish populations. Although these zones comprise less than one percent of the sanctuary, they protect some of its critical coral reef habitat. Investigators are finding significantly more and larger legal-sized lobsters in no-take areas, and increasing populations of economically important reef fish, such as yellowtail snapper, hogfish, and grouper in these zones. The data also bode well for other reef organisms, which are being monitored, but are expected to respond more slowly to increased levels of protection.

• In related work, NOAA (the Florida Keys National Marine Sanctuary and NMFS) is working with the Sanctuary's Advisory Council, the Fisheries Management Council, and the Tortugas 2000 Working Group in considering the establishment of protective zones in the Tortugas region of the western Florida Keys. Data on fish and other reef communities collected by the sanctuary and partner organizations during this past summer determined baseline conditions for coral reefs in the region and will allow for comprehensive monitoring of zone effectiveness in the future.

While state and local agencies have a key role in mapping, monitoring and research, they cannot begin to map or monitor the nation's coral reefs over large areas. NOAA and other federal agencies have an essential role in linking state and local mapping and monitoring efforts together with information from coral reefs in federal waters. With adequate resources, NOAA also could help fill gaps and add powerful technologies to better track and improve coral reef health. With more detailed information, local, state and federal managers will be better able to identify the sources of reef degradation and design more effective management actions. Local, state and other partners depend on NOAA to provide information, technology and assistance in these areas.

With only a grant program, I am concerned we will compromise our ability to address these issues in a long-term and comprehensive manner, and consequently, lose ground against the increasing pressures our coral reefs are facing.

NOAA would also suggest a provision designed to help prevent the destructive and dangerous practice of abandoning vessels on U.S. reefs. There are no effective mechanisms to prevent and address such vessels. I believe a provision, such as the one found in S.1253 which places restrictions on the vessel owner unless the owner has reimbursed the U.S. for the costs of removal and for environmental damage, will help prevent vessel abandonment on coral reefs but other measures may also be necessary. I look forward to working with you to develop a broader approach to addressing this problem.

One of the ways H.R. 2903 also could be improved is to allow more discretion for the Secretary in making decisions on matching funds for the grants, including allowing the use of in-kind services as part of the match. Requiring applicants to provide some level of matching resources (as funds or in-kind services) helps leverage federal funding and can increase the involvement of community and other partners in the project. I believe that many applicants would be able to provide 50% match using funds or in-kind services. However, even 50% match is high for many of the localities, non-governmental organizations, and academic institutions that have access to and interest in coral reef resources. By giving flexibility to the Secretary in

determining match and the need for it, as provided for in S. 1253 and S. 725, the Committee could enhance the effectiveness of the grant program. For example, Senator Inouye's bill does not require match for projects under $25,000, enabling smaller, community-based groups, who may have few resources, to propose and undertake conservation of important reef resources. This important flexibility will enable wider participation and more active support at all levels.

NOAA also suggests adding important statutory authority to pursue natural resource damage claims for injury to coral reefs. This ability to recover damages is especially important where other liability statutes, such as the Oil Pollution Act, do not apply to an incident that injures to coral reefs. A more comprehensive authority would enable NOAA and other natural resource trustees to recover funds to restore injured coral reefs outside of protected areas, thus providing uniform protection for all coral reefs of the United States.

NOAA also has concerns about the narrow focus of H.R. 2903 has on one program office, the Office of Response and Restoration, within one line office, the National Ocean Service (NOS), within NOAA. As previously stated, NOAA has a number of comprehensive programs through the Agency at the National Ocean Service, the National Marine Fisheries Service, the Office of Oceanic and Atmospheric Research, and National Environmental Satellite, Data, and Information Service.

Also, the list of coral species in the definition of "coral" is missing one of the most important and diverse groups of corals, the order Alcyonacea (soft corals), found extensively in the western Pacific. I recommend this be added to the definition.

NOAA would also request that H.R. 2903 authorize funding at $12 million, to match the Administration's request.

Finally, I would like to reiterate the Administration's strong support for comprehensive legislation that increases conservation and protection of coral reefs and coral reef ecosystems. H.R. 2903 is one important step forward to accomplish this.

CONCLUSION

In conclusion, I applaud Committee's leadership and commitment to protecting our incredible ocean resources - and the communities and economies that depend on them. I look forward to working with you to protect the Nation's precious coral reefs.

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