Thank you, Mr. Chairman. First, I want to apologize to the Commission and to members of the panel. My official testimony has not yet been cleared, so my following comments will represent my personal and professional opinions and may not necessarily reflect those of the Department of the Interior.

Good morning. My name is Dr. Jaime Geiger, Assistant Regional Director-Fisheries for the U.S. Fish and Wildlife Services' Northeast Region. I am pleased to be invited here today to provide our perspectives on specific issues and recommendations related to the charges and purposes presented in the Oceans Act. As you all are aware, the mission of the Service is "working with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people." We help protect a healthy environment for people, fish, and wildlife, and help our citizens to conserve and enjoy the outdoors and our natural resources. Our major responsibilities are for migratory birds, endangered species, certain marine mammals, interjurisdictional fish, and the conservation of wildlife and habitats of 538 National Wildlife Refuges in every State and territory of the United States.

The Service has long had significant interests in and focused effort upon fish, wildlife, and
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habitat issues affecting our Nation's aquatic resources - including estuarine and marine resources. Our resource management programs in Fisheries and Habitat Conservation, our National Wildlife Refuge system, our Endangered Species program, and our Law Enforcement program provides significant “on-the-ground” efforts with our primary State conservation partners, our sister Federal Agencies such as the National Marine Fisheries Service, the Environmental Protection Agency, the Corp of Engineers, and others to address resource issues of mutual management concern not only in the Northeast coastal areas, but also in the Great Lakes. The hallmark of all our efforts are partnerships which are inclusive, interactive, adaptable, and based upon sound science. We make special efforts in these partnerships to be accountable for our actions, and do our best to meet agreed-upon short-term and long-term fish and wildlife management and conservation goals and objectives.

Because of our long-term involvement with estuarine and marine issues, we see several broad “common denominators” of concern related to stewardship of ocean and coastal resources and protection of the marine environment.

First, we must seriously address the need for enhanced water quality and water quantity in the Northeast. One of the most significant “common denominators” is the influx and availability of sufficient water of adequate quality to maintain biological and ecological processes. Healthy seas and healthy estuaries and their associated biological communities require an adequate influx and supply of freshwater. Our Northeast estuaries and coastlines are the production centers for
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much of the marine resources on the Atlantic Coast. Competition for and subsequent allocation decisions of quality freshwater between people, geographic areas, and dependent fish and wildlife populations will continue to significantly increase. This competition will tend to magnify conflicts between people and natural resources. Subsequently, effective stewardship of coastal and ocean resources will require considerations of the availability of quality freshwater.

In addition, resource managers must have new, adaptive “tools” to address this changing ocean and coastal ecosystem: hydrology models, in-stream flow models, habitat-suitability indexes, multi-species management models, etc. Changing water qualities and quantities are changing current fish and wildlife populations and distributions of species. Certainly the increased incidence of harmful algal blooms and the recent *pfisteria* outbreak which resulted in massive fish kills in several Atlantic coast bays sadly reinforce this point.

The importance of Fish and Wildlife Health for ecosystem integrity is becoming an area of significant concern. Fish and Wildlife populations frequently serve as our modern-day “yellow canaries” to indicate problems in the environment. Recently we have become painfully aware of the impacts of disease to management and conservation of fish and wildlife populations. From mortality of certain marine mammals, to infectious salmon anemia, cold water disease, and furunculosis impacting recovery and restoration of Atlantic salmon here in the Northeast to West Nile disease affecting bird populations and impacting human health and safety, to botulism outbreaks on Lake Erie, we are inadequately prepared to deal with these potentially devastating impacts. Scientists and resource managers need better diagnostic tools and approved treatments...
to adequately prepare for just the current threats. We must determine the causes of these outbreaks, and address them at their source, and not just address the symptoms. Increasingly we continue to see disease interactions and linkages between fish and wildlife populations, and ultimately with people. This disturbing trend must be broken.

We must control and effectively plan to eradicate Aquatic Nuisance Species. Aquatic nuisance species are second only to habitat loss and degradation as factors in the decline of native aquatic species and loss of biodiversity. More than 4,000 plants and 2,300 non-native animals have been established in the U.S. More than 200 of these are literally wreaking havoc in our major aquatic and coastal ecosystems. Zebra mussels and European ruffe in the Great Lakes to green and mitten crabs in our bays and estuaries to nutria destroying coastal marsh on the eastern shore of Maryland continue to significantly impact resource management, influence habitat loss, and lead to billions of dollars in damage to industry, municipal water supplies, and to the environment in general. These aquatic nuisance species also include disease organisms. It is thought that the type E botulism currently killing thousands of fish and birds in Lake Erie was brought to the Great Lakes a decade ago by ships from the Caspian Sea. As a nation, we need better screening to prevent these species from entering U.S. waterways as well as more control methodologies to effectively eradicate known populations before they can become established. All of our Service resource management programs in the Northeast Region are actively involved in efforts to stem the tide of aquatic nuisance species through on-the-ground programs, education, and cooperative work with our State and Federal partners.
New tools must be developed to assess watershed health and identify potential limiting factors to the sustainability of fish and wildlife populations. Habitat fragmentation by dams, acid rain, endocrine disruptor compounds, climate and warming impacts, land-use practices, and general habitat loss all have significant impacts on fish and wildlife populations. As a nation, we must begin to address resource management and conservation on a watershed/bay basis, and realize that the connectivity of habitats from highlands and riparian areas to estuaries and into the open ocean must be evaluated in a comprehensive and holistic manner. We currently manage fish and wildlife populations primarily on a species by species basis. The principles of conservation biology and the increasing and appropriate emphasis on sustainability of healthy, diverse, and productive ecosystems for the long-term are even more important now. This connectivity of species and habitats is illustrated by interaction between fish and birds. FWS scientists have determined that between 96,400-251,000 birds per year are killed in long-line and gill-net fisheries. We are actively working with our coastal States and the National Marine Fisheries Service to address this serious avian “by-catch” issue.

The importance of new ways to address natural resource management and conservation and the increased use of new generations of biochemical tools are crucial to our future management success. Conservation biology teaches us that fluctuations in the natural world such as climate shifts, population trends, range changes, etc., are all part of the normal process of change. Equally important is the concept of adaptive management. Management changes are applied to
the system, results are monitored, and the goals and objectives are modified or changed as a result of this evaluation. The key to this approach is to involve people as full partners in aquatic resource management and strengthen the scientific basis for management by fully integrating research and management. New biochemical techniques such as DNA analysis and genetic engineering (transgenics) are becoming more important to resource management. These tools have the potential for good as well as for bad. The issue of transgenic organisms competing with native species certainly has potential for mischief equal to that of aquatic nuisance species.

Finally, the most significant common denominator we must address in the Northeast is habitat loss. Perhaps nowhere else in the country do concentrations of people, water, habitat, and fish and wildlife populations come together so intimately than here in the Northeast Region. Loss and alteration of aquatic habitats are the principle factors in the decline of native and interjurisdictional fish and other aquatic resources and the loss of biodiversity. Seventy percent of the Nations rivers have altered flows and 50 percent of waterways fail to meet minimum biological criteria. The ultimate results are significant impacts upon our coastal bays and estuaries and Great Lakes ecosystems.

Habitat protection and restoration are key elements of the mission of the Service and fundamental to virtually everything the Service does through its many resource management programs. The overall purpose of habitat protection and restoration activities must be to maintain the sustainability of fish and wildlife populations. One of the most significant actions
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we can implement is to establish management structures that facilitates significant and interactive local involvement in habitat management decisions. Building support and understanding from the local level towards a Regional ecosystem-based approach is a proven strategy for success.

In summary, I would like to comment on the importance of cooperation and coordination between and among State and Federal agencies. We are fortunate that here in the Northeast many effective and efficient partnerships exist.

The Northeast Region of the Service prides itself on the relationships it has with our primary conservation partners, the States. In addition, we have an excellent working relationship with the National Marine Fisheries Service and our other Federal partners. The keys to these partnerships are frequent and interactive communications, using the best available science in decision-making, personal interrelationships between and among key resource managers, a real focus on actively listening to the concerns of our partners, and finally, ensuring that the people of the Northeast are fully engaged in the process of resource management and conservation to the fullest extent possible. There are several successful management forums in the Northeast which exhibit these traits including the Gulf of Maine Program, the Atlantic States Marine Fisheries Commission and the Great Lakes Fisheries Commission. Certainly the outstanding restoration of Atlantic Coast striped bass populations from Maine to Florida is one of our nations great success stories. Without the partnership between the States, Federal agencies and the Atlantic States
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Marine Fisheries Commission, an effective management process, targeted legislation, focussed planning, successful implementation with accountability, and a long-term commitment for success, this billion dollar fishery would of been lost.

Thank you for this opportunity to provide testimony, and I would be pleased to answer any questions the Commission may have.