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Testimony on the Reauthorization of the National Sea Grant College Program
Before the Subcommittee on Fisheries, Wildlife, and Oceans
Committee on Natural Resources
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Good morning, Chairwoman Bordallo, Ranking Member Brown, members and staff. Thank you very much for the opportunity to testify on the National Sea Grant College Program. I am Dr. Robert Gagosian, President of the Consortium for Ocean Leadership. Ocean Leadership is a Washington, DC-based nonprofit organization that represents 95 of the leading public and private ocean research and education institutions, aquaria and industry with the mission to advance research, education and sound ocean policy. The organization also manages ocean research and education programs in areas of scientific ocean drilling, ocean observing, ocean exploration, and ocean partnerships.

The Consortium for Ocean Leadership strongly supports H.R. 5618--*National Sea Grant College Program Amendments Act of 2008*. Within H.R. 5618, we particularly support the following provisions:

- The linkage of Sea Grant strategic planning and priority setting process to the Ocean Research Priorities Plan and Implementation Strategy (ORPPIS) released in January 2007 by the Joint Subcommittee on Ocean Science and Technology.
- Increased emphasis on regional collaboration and integrated research, education and extension; and
- Strengthening of the review process consistent with the recommendations made by the National Academy of Sciences; and

As H.R. 5618 moves through the Committee to final passage, Ocean Leadership would like members and staff to consider the following modifications or additions:

- Increase Sea Grant's reauthorization levels to grow to \$125 million over the next three to five years. These funding levels will directly benefit our nation's coastal communities, enhance Sea Grant's national agenda, and contribute to the sustainable management of our natural resources.
- Request that the National Sea Grant Advisory Board investigate the pros and cons of extending the period for the John A. Knauss Marine Policy Congressional Fellowship from one to two years..
- Include among the National Sea Grant Advisory Board duties to advise the Secretary and the Director about strategies for utilizing the Sea Grant College Program to implement the ORPPIS and its near-term priorities.
- Develop an international Sea Grant Program and Fellowship that would promote capacity building and technology transfers to improve global ocean observing, fisheries management, bycatch reduction, habitat conservation, and coastal resiliency.

I will discuss each of these in more detail in my testimony.

Background

The Sea Grant Program was created by Congress in 1966. Sea Grant sponsors research, education, outreach, and technology transfer through a partnership between NOAA, thirty state Sea Grant programs, and over 300 universities and colleges. Sea Grant works with university scientists, educators, and outreach specialists to conduct research and develop science-based solutions to critical resource management, development, and conservation issues facing our oceans, coasts, and Great Lakes. Sea Grant is a highly-leveraged program. As a “match” program it brings in an additional 50 cents on every federal dollar spent by mandate; in actuality the leveraged match of most Sea Grant Programs is far greater than the minimum required—demonstrating the strong support that Sea Grant enjoys with the states. Sea Grant’s focus on applied research, education and outreach often generates projects that meet local and national needs and provide information useful to coastal businesses, marine industries, government, educators, and the public. One of Sea Grant’s strengths is that it advances formal and informal education. Sea Grant programs deliver education and outreach information on a wide range of topics and offer hands-on educational experiences for students, and research-based curricula and communications materials for students and the public.

Increase the Authorized Levels in HR 5618

Regrettably, the ability of Sea Grant to serve our nation is diminished by insufficient funding. Ocean Leadership believes that competitive research is the best means to devise science-based solutions to the plethora of problems facing the oceans. At current levels, Sea Grant cannot fund a substantial number (88%) of the meritorious proposals that it receives. Moreover, coastal communities and decision-makers go unserved as extension activities are curtailed and respected sources of unbiased information are denied to our decision-makers, business leaders, and the public at large. After more than three decades, Sea Grant remains an underutilized resource. The U.S Commission on Ocean Policy advocated that the Sea Grant network expand its roles and responsibilities, particularly in education and outreach. However, it noted that such an expanded and strengthened role is not possible with Sea Grant’s annual budget hovering between \$50 to \$63 million for more than a decade. Therefore, Ocean Leadership is concerned that the authorization levels contained in H.R. 5618 are insufficient. For example, the authorization level for FY 09 of \$66 million represents a 33% reduction in Sea Grant’s authorization level of \$85 million in current law. Overall the proposed authorization levels fall short of what is needed to address the ever-increasing needs and resource management problems facing our nation’s coastal, ocean, and Great Lakes.

It is important to note that the Land Grant College program, currently administered by the Department of Agriculture, has a line item called the Cooperative State Research Education and Extension Service (CSREES). For FY 2008, it is estimated that Land Grant Colleges and their associate extension services will receive nearly \$1.2 billion in funding under this line item for research, education, and extension and integration services. Sea Grant, the analogous program for our oceans and coasts, where more than 50% of the population lives, will receive by comparison \$57 million or roughly 4.7 percent of the total for Agriculture research and

extension. The United States coastal regions contribute more than 50% of the nation's Gross Domestic Product and account for one out of every six jobs nationwide. The collective economic impact of the coastal economy far exceeds U.S. agriculture, yet, as demonstrated the federal investments in Sea Grant colleges and universities is disproportionately smaller than CSREES. While it may be unrealistic to make the two programs equivalent, Congress should act to close the gap between Sea Grant and CSREES.

Ocean Leadership recommends that the National Sea Grant College Program be reauthorized at a level of funding growth to reach \$125 million by the year 2014. This level of funding is needed to enable Sea Grant to support a robust, competitive, merit-based research program tied to extension, communication, and education in which science-based information is used to address societal problems and opportunities as they relate to management, conservation, and sustainable use of our coastal, marine, and Great Lakes resources.

Extend the Period of the Knauss Fellowship to Two Years.

The John A. Knauss Marine Policy Fellowship, established in 1979, provides a unique educational experience to students who have an interest in ocean, coastal and Great Lakes resources and in the national policy decisions affecting those resources. The program matches highly qualified graduate students with "hosts" in the legislative and executive branch of government located in the Washington, D.C. area, for a one year paid fellowship. The program is named in honor of one of Sea Grant's founders, former NOAA Administrator, John A. Knauss.

Knauss fellows make vital contributions to ocean policy in the legislative and executive branches of government. More than 650 alumni from John A. Knauss Marine Policy Fellowship program now hold positions in NOAA, other partner agencies, the industry sector and non-governmental organizations. This strong workforce is needed to solve the major environmental challenges that face the nation and the planet. Nevertheless, Ocean Leadership believes that the program would benefit greatly if the period of the Congressional segment of the fellowship was increased to two years. In a one year fellowship, fellows are just becoming familiar and comfortable with the operation of either Congress and don't have the time to make important contributions to ocean policy and legislation. Given that Congress is on a two year cycle, fellows and the Congressional offices or committees that they serve would benefit from having these individuals for an entire Congress to track authorizing legislation and appropriations which often span more than one year. Ocean Leadership believes that fellows should have an option to remain for an additional year. Therefore, Ocean Leadership recommends that Congress direct the Sea Grant Advisory Board to review the pros and cons of providing the opportunity of extending the term of the Knauss Congressional fellowship from one to two years and provide their recommendations to Congress.

Increase Sea Grant's Alignment with the National Ocean Research Priorities Plan

Last January, the federal government released its interagency ocean research priorities plan, "Charting the Course for Ocean Science in the United States for the Next Decade: An Ocean Research Priorities Plan and Implementation Strategy" (ORPPIS) which emphasizes the need for

more effective bridging of science and policy. This is the core of the Sea Grant mission and distinguishes Sea Grant as a uniquely effective tool for local, regional, and national decision-makers who are seeking scientifically sound information to address novel emerging issues.

The research priorities are oriented around the most compelling issues in key areas of interaction between society and the ocean (societal themes). These priorities focus on understanding critical ocean processes and interactions, and applying that understanding toward stewardship and responsible use of the ocean. The themes are:

- Stewardship of Natural and Cultural Ocean Resources;
- Increasing Coastal Community Resilience to Natural Hazards;
- Enabling Marine Operations;
- The Ocean's Role in Climate;
- Improving Ecosystem Health; and
- Enhancing Human Health

Sea Grant is well positioned to contribute to the implementation of this strategy and can play a major role in developing tools and technologies to address these themes. Implementing this strategy will require a national and international effort involving coordination among many sectors of the ocean community, from state, local, and tribal governance to academic institutions and nongovernmental organizations. It is these types of partnerships that are Sea Grant's strong suit. Implementation will also require the involvement of end users of scientific information, including resource managers, public policy-makers, and individual citizens, to enhance the impact and value of research efforts. Again, Sea Grant can play a key role in translating scientific concepts; and synthesizing its research, education, and extension capabilities to support informed public and private decision-making and resource management activities that will lead to a better understanding of the oceans and improved ecosystem health.

By using the ORPPIS as an over-arching mechanism to set priorities, individual states can link local needs to national priorities. Currently, regional research priorities workshops and synthesis are poised to integrate ORPPIS with local needs and interests. However, the process for this priority setting using ORPPIS is unclear in the legislation. Specifically, how the ORPPIS will contribute or be used to develop regional research and information plans or strategic plans. One area where the legislation could make this clarification is related to the National Sea Grant Advisory Board. The Advisory Board is charged with looking at the big picture and helping the national and state Sea Grant college programs devise strategies and identify priorities. Therefore, Ocean Leadership recommends that the National Sea Grant Advisory Board include among its duties to advise the Secretary and the Director about strategies for utilizing the Sea Grant College Program to implement the ORPPIS and its near-term priorities. The National Sea Grant Advisory Board could also assist the Secretary and the Director in ensuring that these priorities and strategic plans formalize the mechanisms necessary to implement and make progress on these plans.

Develop an International Sea Grant Program and Fellowship to Build Capacity and Transfer Technology

In its 2004 report the U.S. Commission on Ocean Policy recommended that: “Congress should significantly expand the National Sea Grant College Program as part of doubling ocean and coastal research funding.” President Bush’s U.S. Ocean Action Plan states, “In response to direct requests from interested foreign governments and universities, the Administration will conduct a donors conference in Latin America, hold a workshop in Southeast Asia, and develop a technical assistance plan in North Africa in order to help introduce and adapt the successful U.S. Sea Grant system of applied research, extension, and education to countries in these regions. Sea Grant will help create a global network of institutions dedicated to applying the knowledge and technologies that lead to sustainable forms of coastal and marine resource development and conservation.”

The international reach of the National Sea Grant College Program has been limited due to funding restrictions, but the potential to foster international economic and environmental sustainability for the global ocean is unlimited. Congress could amend HR 5618 to strengthen the international component of Sea Grant. By creating an international program and fellowship, Sea Grant could evolve to become a marine research, outreach, and education version of the Peace Corps—a Sea Corps. The Magnuson-Steven Fishery Conservation and Management Act, the Marine Mammal Protection Act, and the Endangered Species Act all reference the need for international collaboration and cooperation, capacity building, and technology transfer. With additional Federal investment, this International Sea Grant Program and Fellowship could improve international fisheries management, bycatch reduction, and habitat conservation-- it could enable NOAA to meet its Congressional mandates and build capability to address international fisheries and bycatch issues identified in these statutes.

By adapting the Sea Grant model of applied research, extension and education to an international context, with increased funding, Congress would take a progressive and significant step toward U.S. leadership in global capacity building for ocean research, education, and resource management. These international fellowships could become the mechanism to train international scientists and provide nations with the tools and personnel needed to develop ocean observing infrastructure to better understand ocean processes and climate change, improve coastal resiliency, guard against habitat destruction, and to conserve and manage international marine resources. An international Sea Grant fellowship could expand programs of scholarships to study abroad, transfer technology, engage in collaborative research, and continue programs of professional development. It could provide scientists and managers in foreign nations with practical field experience that in turn could result in improved marine wildlife population assessments, management plans, bycatch estimates, and increased development of international ocean observing systems. These international fellowships will promote ocean research education, outreach, and conservation projects that will provide critical information, and significantly increase capacity building and technology transfer to promote marine resource conservation and management and improve our understanding of the ocean, coasts, and climate change.

Conclusion

In conclusion, the Sea Grant program has repeatedly demonstrated its utility and value. Its reauthorization and increased funding is critical to the needs of coastal communities and the efforts of local and national decision-makers tasked to conserve and manage the sustainability of their marine resources in an increasing environment of resources use and marine environmental change. Sea Grant is a wise investment in our nation's ability to respond to our burgeoning coastal populations and the associated challenges of international marine resource management and capacity building. Sea Grant's competitive research can meet both local needs and the national research priorities embodied in the ORPPIS and provide vital information to decision-makers. State Sea Grant extension programs are rooted in our coastal communities where they can engage citizens and local decision-makers to better understand the ocean and develop science-based solutions to the problems we face.

Ocean Leadership urges you to support the enhancement of our National Sea Grant College Program to a level of \$125 million over the next three to five years; require the Advisory Board to review the pros and cons of providing fellows with an opportunity to increase the period of the Knauss Congressional fellowship; require that the Advisory Board develop strategies to implement ORPPIS; and develop an International Sea Grant Program and Fellowship. We believe that H.R. 5618 moves the Sea Grant Program in that direction, and we support the bill.

Ocean Leadership looks forward to working with you, Madam Chairwoman, and Members and staff of the subcommittee to secure passage of HR 5618. Thank you again for the opportunity to testify, and I will be glad to address any questions from the Subcommittee.