



**Testimony of Dr. Fredrika Moser
President, Sea Grant Association and
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to the
Subcommittee on Commerce, Justice, and Science
Committee on Appropriations
United States Senate
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The National Sea Grant College Program (Sea Grant) is a joint federal-state investment that supports the health and resilience of the nation's coastal communities (including the Great Lakes, Gulf of Mexico, and communities on the Atlantic and Pacific coasts), yielding quantifiable economic, social, and environmental benefits at the national, regional, state, and local levels. It is a program of the National Oceanic and Atmospheric Administration, Department of Commerce.

The administration, for the third year in a row, is recommending eliminating funding for the Sea Grant program, including the Knauss Fellowship Program and research on sustainable aquaculture. The Sea Grant Association (SGA), a non-profit organization dedicated to furthering the Sea Grant Program concept whose members are the academic institutions that participate in the National Sea Grant College Program, strongly opposes the administration's FY 2020 proposal. The SGA is deeply appreciative of the support this Subcommittee has consistently provided the Sea Grant program, rejecting past administration proposals to eliminate funding for the program. We urge the Subcommittee to continue to support the Sea Grant program when it develops its FY 2020 appropriations bill.

The Sea Grant Association recommends that the National Sea Grant College Program, including the Knauss Fellowship Program, Sea Grant STEM education activities, and research on aquaculture, be funded at a total of \$93.5 million for FY 2020, an amount consistent with the total amount proposed in S. 129 (that passed the Senate unanimously in September 2017). These funds are necessary so that each of the 33 university based programs can best serve the needs of its local and regional stakeholders and partners. These needs have been identified via each program's collaborative strategic planning process with its stakeholders.

In 1966, Congress passed the National Sea Grant College and Program Act that charged the federal government to develop a network of Sea Grant Colleges modeled after the Land Grant College system. This model combines research and engagement through its extension services and education programs. Sea Grant extension can be defined as the delivery of scientific research and knowledge to fishermen, community leaders, and other Sea Grant stakeholders. From the beginning, it was anticipated that the three pillars of research, extension, and education, and the network of cooperating universities would be mutually supporting. Sea Grant economic impact numbers including 2,500 business created or sustained and 12,500 jobs created or sustained



confirm that Sea Grant has benefited the vitality of coastal communities, habitats and ecosystems together with the marine resources upon which they depend far more profoundly than even Sea Grant's founders could have imagined.

Central to the power of the Sea Grant model is the synergistic interplay of goal-directed research conducted by many of our nation's finest scholars with the rapid and sustained delivery of that knowledge toward solving societally-relevant problems and making more informed choices. Sea Grant's research agenda is informed through stakeholder input and is directed toward solving local, regional and national coastal issues. The education of the next generation in diverse fields is intimately integrated into both Sea Grant's research and extension activities. These activities taken together support the economic and environmental vitality of our nation's ocean, coast, and Great Lakes and the communities that depend on them. For over 50 years, Sea Grant research, extension, and education have substantively engaged coastal and Great Lakes communities. Sea Grant's mission is to enhance the practical use and conservation of coastal, marine, and Great Lakes resources in order to create a robust and sustainable economy and environment.

Increasing aquaculture production and reducing extreme weather impacts are both key priorities of the Department of Commerce and NOAA. The United States imports about 90 percent of its seafood, creating an annual seafood trade deficit exceeding \$14 billion. With worldwide fish consumption projected to increase by 21 percent in the next decade, our seafood deficit will continue to grow if sustained action is not taken. Sea Grant is a leader in supporting aquaculture research and development that lead to jobs and increased domestic production of safe and sustainable seafood. Through its locally based research, extension, and education programs, its national perspective, and its longstanding role in aquaculture, Sea Grant is ideally positioned to play an expanded role in the Commerce Department's focus on reducing the Nation's seafood trade deficit.

Sea Grant can also assist NOAA efforts to better prepare for and recover from extreme weather and water events by informing observations and developing research-based coastal community resiliency practices. Population density in coastal communities is increasing as people are attracted to the beauty, economic opportunities, and recreational activities offered by these localities. According to the most recent completed census (2010), 39 percent of all Americans live in coastal and Great Lakes counties, and projections suggest that this will increase by another 8 percent by 2020. Sea Grant is helping coastal communities cope with the strain that population expansion places on local resources and the increased need for hazard preparedness planning. In recent years, coastal communities have experienced an increased risk to lives and property from storms and natural disasters. Weather events like hurricanes, tornadoes, and snowstorms have increased in number and intensity, posing threats to people, animals, livelihoods, and ecosystems. In cost-effective ways, Sea Grant is assisting states, regions, and local communities to improve both their preparedness, resilience, and recovery to, challenges due to increased extremes and variability in weather and other natural disasters. Sea Grant is helping coastal communities in Texas, Puerto Rico, North Carolina, South Carolina, Florida and other states recover from Hurricanes Harvey, Irma, Maria, Florence, and Michael and prepare for future severe storms and other catastrophic events.



The \$93.5 million requested for Sea Grant in FY 2020 will continue progress in research, extension, education, and outreach at the local, state, regional and national levels.

In 2017, the Sea Grant program helped generate an estimated **\$579 million** in economic impacts, created or supported over **12,500 jobs**, provided **33 state-level programs** with funding that assisted **462 communities** improve their resilience, helped nearly **17,700 fishers** adopt safe and sustainable fishing practices, helped restore an estimated **700,000 acres of coastal ecosystems**, worked with about **1,300 industry and private sector, local, state and regional partners**, and supported the education and training of over **1,800 undergraduate and graduate students**. The Sea Grant program achieved this with a congressional appropriation in FY2017 of \$72.5 million, that were **leveraged with matching funds**.

Sea Grant is a unique program within NOAA that sends 95% of its appropriated funds to coastal states through a competitive process to address issues that are identified as critical by public and private sector constituents and coastal communities throughout the United States. Sea Grant fosters cost-effective partnerships among state universities, state and local governments, NOAA, and coastal communities and businesses.

Funding for Sea Grant results in support for sustainable fisheries and aquaculture, resilient communities and economies, healthy coastal ecosystems, environmental literacy, the Sea Grant Knauss Fellows and other fellowship programs, and workforce development. In its 50 plus-year history, National Sea Grant College Program successes can be attributed to its ability to respond to the changing needs of our coastal communities. Sea Grant's programs are integrated into both the National Sea Grant and NOAA's national strategic plans. Each tailored and therefore maximally effective program executes the following objectives:

- **Sea Grant has capacity, breadth, and depth.** Sea Grant brings the expertise of its vast network of universities, research institutions, faculty, students, staff, and facilities, with on-the-ground and in-the-field knowledge. This knowledge, bolstered by established ties and credibility with communities and community leaders, results in the conversion of science and technology into practical use and informed decision making.
- **Sea Grant facilitates opportunities.** Sea Grant engages partners, stakeholders, and constituents through its nimbleness, capacity for rapid response, and multifaceted ability to address critical issues and needs facing the nation.
- **Sea Grant is proactive.** Sea Grant has engaged in planning, resilience, hazard preparedness and recovery, and participated in the overall "Blue Economy" before the terms were popularized in national programs. Sea Grant has been engaged in an ongoing visioning exercise. For example, in 2016, the Sea Grant network developed a 10-year aquaculture vision that outlines the most pressing needs and opportunities to foster sustainable aquaculture development across the country.



- **Sea Grant is there for its stakeholders.** The needs and desires of the nation’s taxpayers who live, work, and play in coastal America for products and services that Sea Grant provides are rapidly increasing. This is because Sea Grant is recognized and trusted for its ability to work with local constituents to better understand their needs and deliver relevant information and services.

Local, state, regional, and national partnerships are critical to addressing these and other issues central to the survival of our coastal communities, economies, and ecosystems. Coastal and Great Lakes communities need to be informed, engaged, and prepared to respond to these threats and to turn these adversities into opportunities. This is precisely what Sea Grant does.

For over 50 years, Sea Grant has been at the forefront of creating economic opportunities, enhancing food and water security, and reducing risks from natural hazards and extreme events facing coastal communities through research and outreach efforts. Sea Grant is user-driven and university-based, and fully engaged with regional, state, and local organizations.

With \$93.5 million in federal funding, Sea Grant will leverage significant state and local support, continue to increase the economic development and resiliency of coastal communities, and help sustain the health and productivity of the ecosystems on which they depend.

Thank you for the opportunity to present this testimony.