

The Florida Sea Grant College Program is committed to enhancing the practical use and conservation of coastal and marine resources to create a sustainable economy and environment. Now in its 36th year, Florida Sea Grant is the only statewide university-based coastal research, education, extension/outreach and communications program in Florida. One of 32 Sea Grant programs nationally, it is a partnership program among the National Oceanic and Atmospheric Administration, Florida's universities and Florida's citizens, businesses and governments.

Participation

Florida Sea Grant operates through an advisory board of 16 members, each appointed by the president of eleven public and three private universities and two research laboratories in Florida. About \$2.7 million in federal Sea Grant funds is received annually based on competitive awards. A coordinated statewide program involving all universities is required by the National Sea Grant College Program in order for each state to participate in the national program. The Florida Sea Grant Management Office, based at the University of Florida, is the portal through which this occurs.

Student Support

About \$550,000 annually of Florida Sea Grant's research funds supports graduate students on research projects. About 30 graduate students per year receive assistantship support. Since 1986, 97 additional students at nine Florida universities (UF, USF, FIT, FSU, UWF, NSU, UCF, FAU, FGCU) received Sea Grant scholarships using private Aylesworth Foundation funds totaling \$497,000. Ten graduate students have earned a National Sea Grant Knauss Marine Policy Fellowship to spend one year working in the executive or legislative branches of government in Washington, D.C. since 2001.

Recognition

- *National Sea Grant Extension Award — The Urban Boating and Waterways Extension Program was named the top Extension program in 2003 among all 32 Sea Grant programs in a national competition conducted by the Sea Grant Association.*
- *Sustainable Florida Award — Presented in 2003 by the Council for a Sustainable Florida, for overall excellence in statewide university-based coastal research, problem-solving, education, extension/outreach and communications program.*
- *Highest Performance Rating -- Based on a Program Assessment Team review by the National Sea Grant Office in 2005.*

Impacts and Accomplishments

Biotechnology

Florida is steadily climbing in the national marine biotechnology scene. This area represents a solid opportunity for both university scientists and biotechnology-based companies to have an impact on the growth and duration of this field.

Florida Sea Grant is:

- Using genetics to help NOAA determine illegally harvested sharks and sustainably manage the shark fishery.
- Exploring ways to produce marine organism-based compounds for use as anti-inflammatory drugs and as potential cancer treatment. One new start-up company is one result.

Aquaculture

Production of marine species is only a small part of Florida's aquaculture production, valued at about \$100 million. Commercial culture of hard clams is a recent success story and a critical mass of effort is developing for the marine ornamental species sector.

Florida Sea Grant is:

- Developing hatchery technology for the early life stages of cultured marine ornamental fish to remove a barrier for raising them for the ornamental fish aquarium market.
- Testing the potential for new clam species to achieve diversity and new products for clam growers.

Seafood Safety

Florida has about 5,000 processing plants and retail seafood firms. These range from small retail shops to the nation's largest shrimp processing plants. All are responding to increasing demand, shifts in available seafood supply, increasing international trade and competition, new regulatory inspection mandates and environmental concerns.

Florida Sea Grant is:

- Holding annual shrimp schools for domestic processors and importers to teach the latest technology and enable compliance with safety and quality regulations.
- Determining new ways to process and package seafood to eliminate potential problems and avert regulatory action or product safety issues.

Fisheries

Florida leads the nation in terms of economic value from all uses of its marine fish and shellfish. However, Florida's fisheries are affected by multiple use conflicts, global trade, overfishing, and coastline development that contributes to habitat loss.

Florida Sea Grant is:

- Linking scientists, fishermen and the management agencies to ensure that scientific principles and results keep Florida fisheries biologically and economically sustainable.
- Evaluating the value of various habitat types in the production of snapper.

Waterfront Communities

Managing coastal development is a critical challenge facing Florida. Water-dependent small businesses are at risk and need new technologies and regulatory changes to maintain access to coastal waters. Almost one million boats and 1,500 coastal marinas are critical to the economic survival of coastal communities.

Florida Sea Grant is:

- Teaching boaters, marina operators, and citizens how to avoid costly regulations and maintain economically viable marine industries by using science-based maps and Geographic Information System (GIS) technology.
- Participating with the Clean Boating Partnership to establish clean marinas and boatyards to minimize environmental impacts and maximize boating availability in Florida's coastal waters.

Water Quality

From high quality recreational fishing opportunities on the Gulf coast, to attractive ecotourism in the Florida Keys, to productive commercial fishing along the Atlantic, "clean" water is the engine that drives a significant part of Florida's large renewable natural resource-based economy.

Florida Sea Grant is:

- Developing portable sensor technology for rapid detection of harmful bacteria in coastal waters.

- Teaching workshops on how activities in watersheds affect water quality, and using volunteer leaders to develop water-quality programs.

Coastal Habitat

Environmental awareness in Florida is at a high level, with wide public concern over the "replumbing" of the Everglades in its planning and funding phase. The Florida Keys National Marine Sanctuary was recently established. Florida is home to three of the nation's 24 National Estuarine Research Reserves, and four National Estuary Programs.

Florida Sea Grant is:

- Conducting workshops for county-based managers of artificial reef programs on the latest technology for maintaining a science-based reef system.
- Conducting research designed to reduce the likelihood that harmful algae will be introduced into Florida waters.

Coastal Hazards

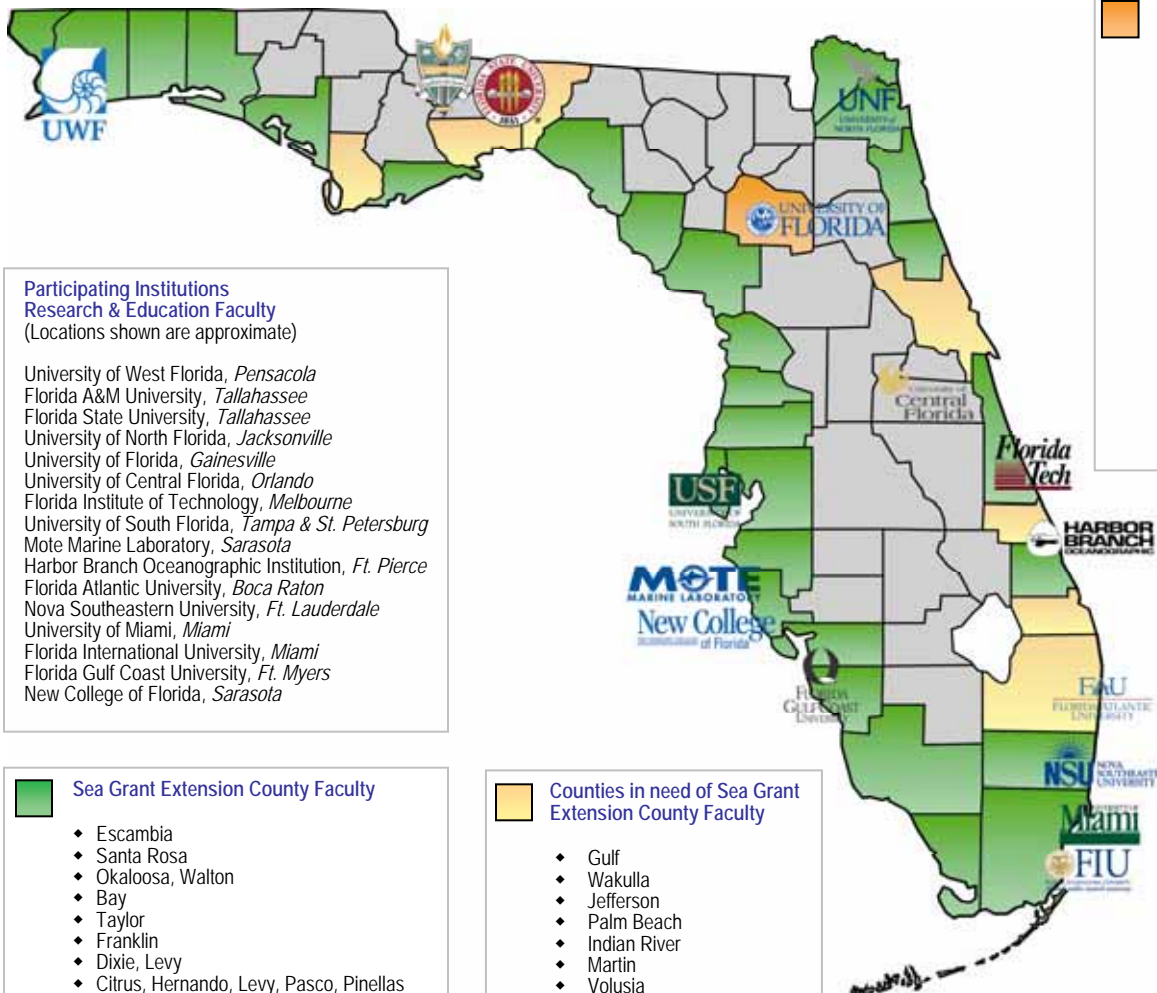
Florida's coastline, home to 80 percent of the state's residents, is at risk from winds, waves and floods generated by tropical storms. These coastal processes and hazards

can result in loss of life and billions of dollars in damage.

Florida Sea Grant is:

- Designing new instruments to measure ground-level winds so that data can be collected and research completed that will enable buildings to be constructed to withstand stronger hurricane winds.
- Developing criteria that will allow the prediction of rip current channels so that beachgoers can be warned of dangerous conditions.

Florida Sea Grant's Academic Community of Marine Research, Education and Extension



Participating Institutions Research & Education Faculty (Locations shown are approximate)

- University of West Florida, *Pensacola*
- Florida A&M University, *Tallahassee*
- Florida State University, *Tallahassee*
- University of North Florida, *Jacksonville*
- University of Florida, *Gainesville*
- University of Central Florida, *Orlando*
- Florida Institute of Technology, *Melbourne*
- University of South Florida, *Tampa & St. Petersburg*
- Mote Marine Laboratory, *Sarasota*
- Harbor Branch Oceanographic Institution, *Ft. Pierce*
- Florida Atlantic University, *Boca Raton*
- Nova Southeastern University, *Ft. Lauderdale*
- University of Miami, *Miami*
- Florida International University, *Miami*
- Florida Gulf Coast University, *Ft. Myers*
- New College of Florida, *Sarasota*

- Florida Sea Grant State Specialists**
 - Economics
 - Seafood Technology
 - Waterways Boating Management
 - Marine/Coastal Law
 - Recreational Fisheries
 - Fisheries Habitat
 - Coastal Planning
 - Estuaries
- Florida Sea Grant Management**
 - Research
 - Extension
 - Education
 - Communication

- Sea Grant Extension County Faculty**
 - Escambia
 - Santa Rosa
 - Okaloosa, Walton
 - Bay
 - Taylor
 - Franklin
 - Dixie, Levy
 - Citrus, Hernando, Levy, Pasco, Pinellas
 - Hillsborough, Manatee, Sarasota
 - Charlotte
 - Lee
 - Collier
 - Monroe
 - Miami-Dade
 - Broward
 - St. Lucie
 - Brevard
 - Nassau, Duval, St. Johns, Flagler

- Counties in need of Sea Grant Extension County Faculty**
 - Gulf
 - Wakulla
 - Jefferson
 - Palm Beach
 - Indian River
 - Martin
 - Volusia

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