

FLORIDA RESTORE ACT CENTERS OF EXCELLENCE PROGRAM

2019 Annual RESTORE Council Report

A. Executive Summary

The Florida RESTORE Act Centers of Excellence Program (FLRACEP) applied for and received its second Centers of Excellence Research Grant award from the U.S. Department of the Treasury's Office of Gulf Coast Restoration (Treasury). This award enabled FLRACEP to renew the University of South Florida's long-term fisheries monitoring project for an additional three years and run its third Request for Proposals (RFP III) process. FLRACEP completed final reporting to Treasury for its first award (2015-2019) and has applied for additional funds to implement the six projects selected via the RFP III process earlier this year. In addition, the program solicited comment on and updated the FLRACEP Rules and Policies and updated the Program Management Team (PMT) Bylaws.

B. Background

On August 20, 2015, the Department of the Treasury issued the Florida Institute of Oceanography its first award for the project titled "Florida RESTORE Act Centers of Excellence Program (FLRACEP)" to solicit and issue sub-awards for Florida Centers of Excellence research grants for the eligible disciplines:

1. Coastal fisheries and wildlife ecosystem research and monitoring in the Gulf Coast Region;
2. Comprehensive observation, monitoring, and mapping of the Gulf of Mexico; and
3. Coastal sustainability, restoration and protection, including solutions and technology that allow citizens to live in a safe and sustainable manner in a coastal delta in the Gulf Coast Region.

Priority objectives within these eligible disciplines are defined by the FLRACEP PMT in the specific request for proposal language.

In 2015, FLRACEP selected ten research grant projects at eight Florida Centers of Excellence under RFP-1 via the peer-reviewed, competitive process detailed in the program Rules and Policies. In 2016, FLRACEP approved a two-year pilot award for a long-term fisheries monitoring Center of Excellence that could potentially extend for seventeen total years after science and management review of progress. The first of these reviews was conducted in 2018 and the project was extended through 2022 when additional review will determine future funding.

The RFP III process included a solicitation for Centers of Excellence for marine wildlife research, habitat mapping coordination, and science support for Northwest Florida Panhandle Estuary Program planning. RFP III was released in January 2019, and six Centers were selected for funding in June 2019. Implementation of these awards, totaling \$2,140,000, is pending receipt of the funds from the Department of Treasury and execution of subagreements with the institutions.

C. Programmatic Elements

1. Award Recipient

The Florida Institute of Oceanography (FIO) is an Academic Infrastructure Support Organization (AISO) of the State of Florida approved by the State University System's

Council of Academic Vice Presidents, ratified by the presidents and chairs of the boards of trustees of the member organizations and approved by the Florida Board of Governors (BOG). Under a Memorandum of Understanding ratified by the member organizations and approved by the BOG, the University of South Florida (USF) assumes the role of host university, and fiscal accounting functions are administered by USF and overseen by the USF Board of Trustees. FIO is the Gulf Coast State Entity for administering Florida's RESTORE Act Centers of Excellence Program.

The FLRACEP includes the following organizational elements:

PROGRAM OFFICE: FIO serves as the FLRACEP program office. The FIO Director is ultimately responsible for program funds and performance; the Program Director reports to the FIO Director and is responsible for programmatic tasks that the Gulf coast state entities must perform including: coordination of competitive selection process for FL Center of Excellence grants; developing award terms and conditions and monitoring performance based on required deliverables and metrics; and coordination with other Gulf restoration programs as mandated by the guidelines and RESTORE Act. The Program Director also represents the Florida Centers of Excellence on regional coordination efforts (e.g., NOAA RESTORE Science Program advisory working group, etc.).

PROGRAM MANAGEMENT TEAM (PMT): The PMT includes the FIO Director and other senior-level advisors appointed by the FIO Director, based on their knowledge of FL regional science, technology and management needs. Members are not eligible to submit or participate on FLRACEP grants or contracts. Duties include: review and approve all FLRACEP Requests for Proposals, review and rank Letters of Intent, determine proposals that will be awarded funding, participate in annual all-hands meetings, and other ad hoc tasks on request of the FIO Director.

SCIENCE REVIEW PANEL (SRP): The SRP is an ad hoc team of science and technology experts not involved in any FLRACEP proposals, from in and outside Florida, responsible for technical review of CE grant proposals. Panelists are appointed by the FIO Director. Members change based on RFP priorities.

CENTERS OF EXCELLENCE: Per the approved program Rules and Policies, FLRACEP establishes Centers of Excellence via competitively awarded grants or contracts to produce outputs and outcomes that address the eligible disciplines. Specific responsibilities of the Principal Investigator and grantee institution are further defined in Requests for Proposals and in subsequent award terms and conditions. Notably, CE projects are expected to produce at least one peer-reviewed journal article.

2. Award Subrecipient(s)

- A. **Current Award Recipient:** The current project was awarded under RFP-2 in July of 2016 and re-awarded in 2019 to address the comprehensive observation, monitoring, and mapping eligible discipline.

PI Last Name: Peebles; PI Institution: Univ. of South Florida; Title: Spawning Habitat and Early-Life Linkages to Fisheries (SHELF, phase II). Executive Summary: The overall strategy of the SHELF project is to use DNA barcoding to survey fish eggs on the West Florida Shelf (WFS) on an annual basis to develop a long-term fisheries monitoring database, and to conduct targeted studies of anomalies found during the egg surveys. SHELF II will collect samples from 68 stations extending from the Florida Keys to the Alabama border, seasonally targeting collection of eggs of particular species (e.g. groupers or snappers). DNA metabarcoding will be conducted on aggregates of fish eggs in order to produce a list of species encountered at each of the stations. Targeted studies will examine regions of interest (ROI) identified during annual egg surveys, and will include active acoustic surveys, video transects, and a small-scale, local egg survey from the ROI.

- B. Prior Award Recipients: The PMT previously selected ten (10) research projects from eight (8) Florida Centers of Excellence to address the Coastal Fish and Wildlife Research and Monitoring eligible activity under RFP-1 via 2-year research grant awards, and one (1) project from an existing Center of Excellence (USF) to address long-term fisheries monitoring as a part of the comprehensive observation, monitoring, and mapping of the Gulf of Mexico eligible activity.

In brief, the awarded Centers of Excellence and projects are:

1) FLRACEP CE 1--Project # 1--University of Florida

PI Last Name: Allen; PI Institution: Univ. of Florida; Title: Examining Fisheries Impact of Invasive Lionfish with an Ecopath with Ecosim Model.

2) FLRACEP CE 2--Project #2--University of Miami

PI Last Name: Ault; PI Institution: Univ. of Miami; Title: Biological and Economic Indicators for Assessing Recreational Fisheries.

FLRACEP CE 2--Project # 3--University of Miami

PI Last Name: Babcock; PI Institution: Univ. of Miami; Title: Improving the use of products derived from monitoring data in ecosystem models of the Gulf of Mexico.

3) FLRACEP CE 3--Project # 4--Florida International University

PI Last Name: Boswell; PI Institution: Florida International Univ.; Title: Fishery-Independent Surveys of Reef Fish Community, Size, and Age Structure off Northwest Florida.

4) FLRACEP CE 4--Project # 5--University of West Florida

FPI Last Name: Caffrey; PI Institution: Univ. of West Florida; Title: Evaluating Fish Production and Ecosystem Impacts of Artificial Reefs.

5) FLRACEP CE 5--Project # 6--Florida State University

PI Last Name: Grubbs; PI Institution: Florida State Univ.; Title: Monitoring oil spill effects and recovery in large deep-sea fishes.

6) FLRACEP CE 6--Project #7--University of South Florida

PI Last Name: Lembke; PI Institution: Univ. of South Florida; Title: Demonstration of Fisheries Assessment Applications for Underwater Gliders.

FLRACEP CE 6--Project # 8--University of South Florida

PI Last Name: Peebles; PI Institution: Univ. of South Florida; Title: Egg and larval barcoding for Gulf DEPM stock assessments.

7) FLRACEP CE 7--Project # 9--University of Central Florida

PI Last Name: Mansfield; PI Institution: Univ. of Central Florida; Title: Ontogenetic Shifts in Sea Turtle Habitat Use and Foraging Ecology.

8) FLRACEP CE 8--Project # 10--Nova Southeastern University

PI Last Name: Walker; PI Institution: Nova Southeastern University; Title: Hardbottom Mapping and Community Characterization of the West-Central Florida Gulf Coast.

FLRACEP RFP II CE – University of South Florida

PI Last Name: Peebles; PI Institution: University of South Florida; Title: Spawning Habitat and Early-Life Linkages to Fisheries (phase I).

At the time of their completion, the above FLRACEP Centers of Excellence were responsible for 46 papers, either submitted to or in preparation for submission to peer-reviewed scientific journals, and support of 57 graduate students.

D. Financial Elements

1. Award Recipient

Budget narrative: FLRACEP was awarded \$4,707,093 throughout the course of its five-year award from Treasury. This award closed on August 31, 2019 with final program expenditures of \$4,387,873. Of this, \$3,515,245 was expended by Centers of Excellence Research Grants (see below), with the remaining funds spent on program administration (travel, staff salary, supplies, etc.), independent science review, data management, program meetings, etc.

Additionally, FLRACEP received another Treasury award in February of 2019 totaling \$1,951,773 for the 2019-2023 performance period. FLRACEP has obligated \$750,000 in project funding for the second phase of the USF SHELF Center of Excellence (see below) and expects to receive an amendment to this award adding additional funds for six Centers of Excellence in early 2020.

2. Award Subrecipient(s)

Budget narrative: The Department of Treasury FLRACEP award authorized \$3,645,843 for Centers of Excellence research grant sub-awards, of which \$3,515,245 was expensed and invoiced (details below).

The USF SHELF Center of Excellence has work underway, and \$134,075 has been expended of their total \$750,000 award (period of performance 2019-2022).

Final Centers of Excellence Expenses:

Florida Institute of Oceanography (Florida RESTORE Act Center of Excellence Program)				
Award	Project Name	CE Name	Award Amount	Expended (close-out)
RFP I	Assess management options to mitigate lionfish impacts to reef ecosystems	University of Florida	\$ 294,006.00	\$ 283,877.47
	Optimizing economic value and sustainability of Florida's recreational fisheries	University of Miami	\$ 294,000.00	\$ 290,529.04
	Better use of directly-observed data in ecosystem simulation models	University of Miami	\$ 285,119.00	\$ 248,980.51
	Informing fishery-independent reef fish surveys through advanced survey techniques	Florida International University	\$ 290,742.00	\$ 290,741.95
	Evaluating the role of artificial reefs as hotspots of biological productivity	University of West Florida	\$ 293,991.00	\$ 290,147.47
	Study will examine long-term effects of DwH on large deep-sea fishes	Florida State University	\$ 293,960.00	\$ 288,825.50
	Robotic monitoring of Red Grouper in the Eastern GoM	University of South Florida	\$ 293,555.00	\$ 293,522.67
	Tracking sea turtle "lost years" in the Gulf of Mexico	University of Central Florida	\$ 290,803.00	\$ 290,772.88
	Egg and larval DNA barcoding support Gulf reef fish stock assessments	University of South Florida	\$ 129,265.00	\$ 123,864.42
	Habitat mapping to inform future survey efficiencies, management strategies, and climate change research	Nova Southeastern University	\$ 293,202.00	\$ 292,242.99
Total RFP I Centers of Excellence			\$ 2,758,643.00	\$ 2,693,504.90
RFP II	Spawning habitat and early-life linkages to fisheries (SHELFI)	University of South Florida	\$ 887,200.00	\$ 821,740.92
			\$ 887,200.00	\$ 821,740.92
Grand Total Centers of Excellence			\$ 3,645,843.00	\$ 3,515,245.82
Note: All projects above have closed				

Existing Centers of Excellence Expenses:

Florida Institute of Oceanography (Florida RESTORE Act Center of Excellence Program)				
RFP II Renewal	Spawning habitat and early-life linkages to fisheries (SHELFI)	University of South Florida	\$ 749,999.00	\$ 134,075.19
Total RFP II Center of Excellence (Renewal)			\$ 749,999.00	\$ 134,075.19

E. Gulf Coast Ecosystem Restoration Council Element

1. Leveraging Multipliers

No FLRACEP projects or elements have leveraged RESTORE Act funding streams to the best of our knowledge, due in part to the differences in priority areas, timing of projects, and areas of focus. FLRACEP staff continue to work with other restoration science funding entities to explore opportunities for collaboration and leveraging of. In addition, our CE grantees have leveraged significant non-RESTORE resources in their work, and this can be made available upon request.