

FLORIDA RESTORE ACT CENTERS OF EXCELLENCE PROGRAM

2017 Annual RESTORE Council Report

A. Executive Summary

The Florida RESTORE Act Centers of Excellence Program (FLRACEP) continues to monitor and manage the initial ten research grant awards funded through the first Request for Proposals. While these awards were slated to close November 30, 2017, Hurricanes Hermine and Matthew from the 2016 season and, most notably, Hurricane Irma in 2017 caused significant delays and disturbances to data collection, analysis and manuscript preparation. FLRACEP personnel decided to offer no-cost extensions through February 28, 2018 to all RFP I projects, and grants that accept will now close out in May 2018. The FLRACEP applied for and received an extension (with funds) of its existing award from the U.S. Department of the Treasury in order to fund and implement the research project associated with the program's second Request for Proposals. This work began in March of 2017 and will continue through the end of 2018 with the possibility of extension. External science review of the project is planned for the summer of 2018, and the Program Management Team will decide on the extent and duration of any project extension at that time. FLRACEP participated in its second programmatic audit in July 2017 and is awaiting the report of findings from the Department of Treasury Office of the Inspector General.

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; and
2. Comprehensive observation, monitoring, and mapping of the Gulf of Mexico.

Priority objectives within these eligible disciplines, as taken from public scoping and Program Management Team review included:

1. Improve data and information products:
 - a. To enhance biological observations (including real- or near-real time) required for monitoring fisheries, wildlife, and related productivity
 - b. To assess and map habitat (especially Essential Fish Habitat as defined by state and federal management) location and condition
 - c. To increase and improve fishery independent data for stock assessments (benchmark and updates).
2. Develop innovative approaches and technologies:
 - a. To assess fish populations, fishing activities, ecosystem impacts of fishing activities, and pressure on resources
 - b. To improve recreational fisheries data collection (including landings and bycatch)
 - c. To promote the pace, scope and efficiency of stock assessments
 - d. To increase trust in fisheries data, related syntheses and products (e.g., models).

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. These 2-year sub-agreements were executed in September and October of 2015.

On January 11, 2017 the Department of the Treasury issued an extension of the existing FLRACEP award in order to fund additional long-term fisheries monitoring project to a Center of Excellence under the second Request for Proposals process (RFP-2). The peer-reviewed, competitive review and selection procedures followed approved program Rules and Policies. The initial 2-year project will undergo a merit review and may be extended for up to 15 additional years.

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 (FLRACEP).

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 CE 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 (CEs) 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 FLRACEP Rules and Policies and Requests for Proposals (RFP), Letters of Intent, final proposals, program plans and reports, to participate in annual all-hands meeting with grantees 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

based on review and input from the PMT. Members change based on RFP priorities.

CENTERS OF EXCELLENCE (CE): Per the approved program Rules and Policies, FLRACEP establishes Centers of Excellence (CE) 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 (RFPs) 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. The PMT 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.

In brief, the eight awarded Centers of Excellence (CEs) and ten 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.

- B. The PMT selected an additional project for funding as part of RFP-2 in July of 2016 under the comprehensive observation, monitoring, and mapping eligible discipline. Finalization of the sub-award was completed after the Department of Treasury issued an extension with funds in January of 2017.

FLRACEP RFP II CE--University of South Florida

PI Last Name: Peebles; PI Institution: Univ. of South Florida; Title: Spawning Habitat and Early-Life Linkages to Fisheries (SHELF). Executive Summary: This project will develop and test innovative approaches that can independently estimate population sizes for Florida's offshore reef fish – aimed primarily at snappers and groupers. The proposed method for population assessment is direct; the number of spawning fish will be estimated from the number of drifting eggs they produce. New forensic methods involving DNA (“DNA barcoding”) are now available to identify eggs with great precision. The direct method for estimating numbers of adult fish, known as the “Daily Egg Production Method,” or DEPM, will be developed over a two-year pilot study that will demonstrate the method's applicability to Florida's reef-fish while making technical improvements to the details of the approach. The DEPM method has already been successfully put to use in different locations around the globe, including Europe, Australia, and other parts of North America. In addition to DEPM, the proposed work will include sophisticated, technology-based studies that will improve our understanding of how fish use different habitats during different life stages, allowing fisheries scientists to test ideas about habitat relationships with fish populations in a more information-rich atmosphere. Its primary goals are (1) to develop a monitoring system that can explain and possibly lead to the prediction of variation in year-class strength, and (2) to develop practical methods for fisheries-independent stock assessments with emphasis on activities that contribute to marine fisheries management.

D. Financial Elements

1. Award Recipient

Budget narrative: Funds available to FLRACEP from the Transocean and Anadarko settlements have all been obligated as of September 30, 2016, totaling \$4,707,093. The initial award authorized \$2,763,728 for CE research grant sub-awards (see below), \$478,257 for administrative costs (staff salaries, travel, data management, science and program management review, etc), and set aside \$427,322 for a Gulf-wide monitoring collaborative project to-be-determined. The monitoring collaboration did not

materialize, and these funds were reprogrammed and added to the Department of Treasury application for \$670,855 to support the RFP II CE for ecosystem monitoring.

FLRACEP has received funds and obligated project funding to the Centers of Excellence:

- \$4,036,238 awarded from the Department of Treasury in August 2015.
- FLRACEP awarded \$2,763,728 for CE projects in RFP I, of which \$1,699,997.04 has been expensed as reimbursement requests (62%) through September 30, 2017 (the most recent CE period of reporting).
- \$670,855 request and reprogrammed \$427,322 from Gulf-wide monitoring approved by the Department of Treasury January 11, 2017.
- FLRACEP RFP II ecosystem monitoring sub-award for \$887,200 was executed on March 27, 2017. As of September 30, 2017, \$220,646 has been expensed as reimbursement requests (25%)

2. Award Subrecipient(s)

Budget narrative: The Department of Treasury FLRACEP award authorizes \$3,645,843 for CE research grant sub-awards (details below). Delays in executing sub-awards and a series of tropical storms during the prime 2016 and 2017 Gulf of Mexico field research season caused delays in CE spending through September of 2017 – the latest available reporting period. We offered no-cost extensions to all RFP I CEs on October 9, 2017 to allow expenditures for field work, analysis and manuscript preparation through February 28, 2018.

Centers of Excellence Expenses through September 30, 2017:

| Florida Institute of Oceanography (Florida RESTORE Act Center of Excellence Program) | | | | |
|--|--|----------------------------------|-------------|------------------|
| Award | Project Name | CE Name | Awarded | Expensed To-Date |
| RFP I | Assess management options to mitigate lionfish impacts to reef ecosystems | University of Florida | \$294,006 | \$186,510 |
| | Optimizing economic value and sustainability of Florida’s recreational fisheries | University of Miami | \$294,000 | \$161,672 |
| | Better use of directly-observed data in ecosystem simulation models | University of Miami | \$285,119 | \$209,579 |
| | Informing fishery-independent reef fish surveys through advanced survey techniques | Florida International University | \$290,742 | \$133,806 |
| | Evaluating the role of artificial reefs as hotspots of biological productivity | University of West Florida | \$293,991 | \$188,013 |
| | Study will examine long-term effects of DwH on large deep-sea fishes | Florida State University | \$293,960 | \$191,755 |
| | Robotic monitoring of Red Grouper in the Eastern GoM | University of South Florida | \$293,555 | \$144,060 |
| | Tracking sea turtle “lost years” in the Gulf of Mexico | University of Central Florida | \$290,803 | \$184,467 |
| | Egg and larval DNA barcoding support Gulf reef fish stock assessments | University of South Florida | \$129,265 | \$89,853 |
| | Habitat mapping to inform future survey efficiencies, management strategies, and climate change research | Nova Southeastern University | \$293,202 | \$210,282 |
| RFP II | Spawning habitat and early-life linkages to fisheries | University of South Florida | \$887,200 | \$220,646 |
| Centers of Excellence Subtotal | | | \$3,645,843 | \$1,920,643 |

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 are working with other restoration science funding entities to explore opportunities for collaboration and leveraging of funds and expect to be able to report on the results of this in the coming year. In addition, our CE grantees have leveraged significant non-RESTORE resources in their work, and this can be made available upon request.