

Timeline of Recent Research and Restoration Events

May 22 – Glenn Coldren collected oysters from three restoration sites as part of the microplastics grant.

May 23 – Glenn Coldren trained 2 volunteers in microplastics water sample filtering to assist with processing samplings.

May 24 – Kathryn Tiling lead the FOS monthly seagrass survey with 2 volunteers and Pam Hopkins.

May 28 – Elliot Hoogerland from Michigan State University began summer internship with research department.

May 29 – Pam Hopkins participated in the filming of a PSA for ANRAC. Glenn Coldren conducted a site visit to a homeowner on the SLE interested in Living Shores on their property.

May 30 – Theresa Gruninger, a master's student from UF, installed an experiment on effects of reefs on seagrass herbivory at one restoration sites. This is a follow up study from summer 2018 research at FOS sites.

May 29 – 30 – Jose Nunez, a researcher from UF, led a training workshop with FOS and Florida Sea Grant staff for the Community Oyster Restoration Enhancement (CORE) modules creation as per the IRL NEP Small Grant project.

May 31 – 17 volunteers came out to make 344 bags for future oyster restoration with Kathryn Tiling.

June 1 – 4 – Microplastic sampling for the month of June completed. Interns Elliot and Zach participated in sampling.

June 3 – FOS camp participated in mangrove planting with Glenn Coldren and interns (Elliot and Zach) to support summer living shoreline deployments.

June 4 – Zachary Akdag, who plans to attend Florida State University, began summer internship with research department.

June 6 – FOS camp participated in CORE module creation with Glenn Coldren and interns (Elliot and Zach) as part of the IRL NEP Small Grant project. Seagrass nursery was prepped for plumbers to install in and out flow pipes. Pam Hopkins attended the quarterly meeting of the Martin County Board of Commissioners' Agricultural and Natural Resources Advisory Committee (ANRAC).

June 10 – 14 – Grace Chamberlain, from Magnificat High School in Cleveland Ohio, did 40 hours of shadowing staff in a career of interest. She followed research staff for 4 days and animal care staff for 1 day.

June 10 – Kathryn Tiling held a seagrass training workshop for 9 volunteers for FOSTER projects. FOS camp participated in mangrove planting with Glenn Coldren and interns (Elliot and Zach) to support summer living shoreline deployments.

June 11 – Glenn Coldren, Kathryn Tiling, and Pam Hopkins attended the East Central Estuarine Restoration Team (ECERT). Interns Elliot and Zach joined the meeting.

June 12 – Glenn Coldren set up a mangrove reproduction study along the FOS impoundment with the Summer Teen Conservation Ambassadors.

June 13 – Jensen Beach Plumbing began work on the seagrass nursery expansion with Kathryn Tiling supervising. UF masters student, Theresa Gruninger, collected her deployed experiment on reefs and seagrass herbivory effects.

June 14 – Jensen Beach Plumbing continued work on the seagrass nursery expansion with Kathryn Tiling supervising. Glenn Coldren and Pam Hopkins set up and hosted a research themed booth for the Millionth Visitor day.

June 17 – FOS camp participated in mangrove planting with Glenn Coldren and interns (Elliot and Zach) to support summer living shoreline deployments.

June 19 – Kathryn Tiling lead the FOS monthly seagrass survey with 2 volunteers, 2 interns (Elliot and Zach) and 7 summer teen conservation ambassadors. FOS camp participated in CORE module creation with Glenn Coldren and interns (Elliot and Zach) as part of the IRL NEP Small Grant project.

June 20 – Jensen Beach Plumbing continued work on the seagrass nursery expansion with Kathryn Tiling supervising. 19 volunteers came out to make 314 bags for future oyster restoration with Glenn Coldren.

June 24 – FOS camp participated in mangrove planting with Glenn Coldren and interns (Elliot and Zach) to support summer living shoreline deployments.

June 25 – Kathryn Tiling and Pam Hopkins attended the RECOVER Northern Estuaries Team meeting where the salinity envelope performance was discussed. Palm Beach Zoo camp (18 campers) participated in CORE module creation and oyster bagging with Glenn Coldren and interns (Elliot and Zach) as part of the IRL NEP Small Grant project.

June 26 – Jensen Beach Plumbing continued work on the seagrass nursery expansion with Kathryn Tiling supervising. Summer Teen Ambassadors continued measurements on the mangrove reproduction study in the FOS impoundment with Glenn Coldren. The Martin County Impact 100 grant presented check to FOS.

June 29 – Glenn Coldren and 4 FOS volunteers attended a microplastics training workshop at Oxbow. The workshop was led by Emily Dark from FDEP IRL Aquatic Preserves, who is another partner on the microplastics grant.

July 1 – Kathryn Tiling trained a volunteer, George Gross, in using our ONSET water quality loggers to set him up as a volunteer assistant on maintaining seagrass nursery loggers. Kathryn Tiling set up a preliminary seagrass matting experiment with interns Elliot and Zach. Jensen Beach Plumbing continued work on the seagrass nursery expansion with Kathryn Tiling supervising. Plumbing was completed in the main seagrass nursery. Shoreline nursery plumbing is still underway.

July 2 – Glenn Coldren and interns Elliot and Zach collected and planted salt marsh at a restoration site.

July 6 – 9 – Microplastic sampling for month of July completed.

Seagrass Nursery Expansion:

- Inflow to the main seagrass nursery is complete except for connection the pumps. Outflow is complete. The shoreline nursery tanks are prepped for sediment fill and lining. The research wet lab continues to operate.

Research Interns and Students

- The research department is hosting two summer interns.
 - Elliot Hoogerland, Michigan State University
 - Zachary Akdag, Martin County High School

 - Additional intern activities include but are not limited to:
 - Mangrove measurements including completing mangrove reproduction measures as necessary and monitoring mangroves planted by FOS camps.
 - Seagrass measurements including densities and heights of genetically isolated clones in the nursery tanks. Monitoring seagrass matting experiment set up on July 1.
 - Conduct microplastic water sampling collections and perform sampling filtering and bottle cleaning on a monthly basis.
 - Perform weekly maintenance on the seagrass nursery tanks.
 - Construct and monitor oyster settlement tees.

- The research department had one visiting student conducting summer research.
 - Theresa Gruninger, Master's Student, University of Florida: The effect of oyster reefs on seagrass herbivory

Externally Funded Projects - Awarded and Active

Proj. #	Status	Project Title	Funding Type	Source	Lead Institution	Funding Amount to FOS	Fiscal Year	Income Type	Expected Income Year and Month	Income	Expense
4	In Progress	Seagrass nursery expansion	Donations	Oceans Alive Cash Call	FOS Primary	\$72,000	2018 & 2019	Ocean's Alive Cash Call	Already Received	4835	6335
Staff	PI: Tiling; Support Staff: Coldren										
Description	Supports expanding the seagrass nursery system with an anticipated increase from 6 to 50 seagrass tanks and 9 large-scale shoreline vegetation tanks. Funds are for supplies for expansion.										
Progress	Projected extended into Fiscal Year 2019; FY18 Income was 4680 and Expense was 5690; FY19 Expense was changed to 6335. Plumbing was installed in June/July 2019. Majority of table and tank construction is complete.										
5	In Progress	Sewall's Point Living Shoreline	Donation	Private	FOS Primary	\$5,600	2019	One Time Payment @ Completion	June/July 2019	4680	5700
Notes	PI: Coldren										
Description	Supports creating a living shoreline (oysters and shoreline plants) at private shoreline in the St. Lucie Estuary. Funds are for personnel time for surveys, permitting and construction.										
Progress	Project moved into FY19 due to discharges. All reefs are built and salt marsh was planted.										
6	In Progress	Mapping of oyster reefs in St. Lucie River	Govt. contract	SFWMD to Johnson Engineering	Subcontract for Johnson Engineering	\$6,214	2019	One Time Payment @ Completion	August 2019	4680	5700
Staff	PI: Coldren										
Description	Subcontract with Johnson Engineering to perform ground truthing oyster surveys. Funds are for personnel time.										
Progress	Sonar mapping by Johnson Engineering is ongoing. FOS will conduct ground truthing over summer 2019, with target start date for end of July 2019.										
7	In Progress	Assessing the effects of restored oyster reefs and seagrasses on shoreline stabilization.	Competitive Grant	IRL NEP Small Grants	FOS Primary	\$4,812	2019 & 2020	One Time Payment @ Completion	May 2020	4680	5690
Staff	PI: Coldren; Support Staff: Tiling										
Description	Supports purchasing supplies for sediment elevation studies on oysters and seagrasses.										
Progress	Final executed contract received May 2019. Work to be completed over summer and fall of 2019.										
8	In Progress	New planting methods to enhance the resiliency of Living Shorelines	Competitive Grant	IRL License Plate Grant; SFWMD	FOS Primary	\$16,273	2019	One Time Payment @ Completion	October 2020	4680	5700
Staff	PI: Coldren										
Description	Supports oysters and shoreline plant restoration in the IRL. Restoration efforts are testing new styles of reef and their effectiveness.										
Progress	1st and 2nd quarter reports completed. 3rd quarter report is being prepped for submission. Reef deployment complete and monitoring is ongoing. Shell collection is ongoing.										

Externally Funded Projects - Awarded and Active

Proj. #	Status	Project Title	Funding Type	Source	Lead Institution	Funding Amount to FOS	Fiscal Year	Income Type	Expected Income Year and Month	Income	Expense
9	In Progress	Immersing CORE (Community Oyster Restoration Enhancement) Modules Into Restoration and Education	Competitive Grant	IRL NEP Small Grants	FOS Primary	\$2,440	2019 & 2020	One Time Payment @ Completion	May 2020	4680	5690
Staff	PI: Coldren										
Description	Supports supplies to test out a patented alternative to oyster bags called COREs. This includes a strong outreach component with modules being built with FOS and visiting camps over summer 2019.										
Progress	Final executed contract received May 2019. Training was held May 29-30, 2019. Three CORE events have been held with FOS camp (2) and Palm Beach Zoo. Additional events are planned through the summer.										
10	In Progress	Microplastics, Oysters and the Indian River Lagoon	Competitive Grant	IRL NEP	Subcontract for UCF	\$14,998	2019	One Time Payment @ Completion	February 2020	4680	5640
Staff	PI: Coldren; Support Staff: Hopkins										
Description	Supports testing for the presence of microplastics throughout the Indian River Lagoon (IRL). FOS is responsible for sampling, filtering, and counting 10 sites in the southern IRL.										
Progress	Regular sampling began in March of 2019 and will continue for one year. Infrastructure built and volunteer training ongoing.										
11	Complete	Lululemon	Donation	LuluLemon	FOS Primary	\$3,000	2019	One Time Payment @ Initiation	Already Received	5680	5690
Staff	PI: Coldren										
Description	Funds received supported oyster bagging, mangrove planting and oyster deployment.										
Progress	Events completed. Funds used to support FLOOR as needed.										
12	In Progress	Research Lab Replacement Trailer	Donations	Private	FOS Primary	\$28,000	2019	One Time Payments via Donors	Already Received		
Staff	PI: Coldren										
Description	Funds replacement of research lab trailer.										
Progress	Working on design and quotes from different vendors										
13	In Progress	Living Shorelines to Save Our Waters	Competitive Grant	Impact 100 Martin County	FOS Primary	\$25,000	2019 & 2020	One Time Payment @ Initiation	May 2019		
Staff	PI: Coldren										
Description	Supports the oyster shell recycling program and one FLOORED trip. For the shell recycling program this includes personnel and supplies.										
Progress	Received check on June 25, 2019.										

Externally Funded Projects - Awarded, Not Executed

Proj. #	Status	Project Title	Funding Type	Source	Lead Institution	Funding Amount to FOS	Fiscal Year	Income Type	Expected Income Month	Income	Expense
TBD	Waiting for Paper-work	Jensen Beach Impoundment Mangrove Restoration Project	Competitive Grant	State Wildlife Grant	Subcontract for Martin County	\$4,800	2020	TBD	TBD	TBD	TBD
Staff	PI: Coldren										
Description	Supports personnel time to perform mangrove, salt marsh, and water quality monitoring during restoration efforts at Jensen Beach Impoundment.										
Progress	Project has been awarded, but awaiting final agreements for execution.										
TBD	Waiting for Paper-work	Jensen Beach Impoundment Restoration IRMA funding	Competitive FWC IRMA funds	FWC Funds for IRMA Recovery	Subcontract for Martin County	\$6,000	2020	TBD	TBD	TBD	TBD
Staff	PI: Coldren										
Description	Supports personnel time to perform mangrove, salt marsh, and water quality monitoring during restoration efforts at Jensen Beach Impoundment.										
Progress	Project has been awarded, but awaiting appropriations from FWC and final agreements										

Externally Funded Projects - Letters of Intent and Proposals Out for Review

Proj. #	Status	Project Title	Funding Type	Source	Type	Funding Amount to FOS	Fiscal Year	Income Type	Expected Income Month	Income	Expense
N/A	In Review	A new sediment geochemical health metric for Florida seagrass restoration	Competitive Grant	FL Sea Grant	Collaboration w/ HBOI	-	2020 & 2021	N/A	N/A	N/A	N/A
Staff	PI: Tiling										
Description	Supports sediment analyses at our current sites. No direct funds, but HBOI will purchase few supplies needed (burlap, gas). Grant funding is primarily for student stipends, electrochemical analyzers, and travel as per FL Sea Grant student focus.										
Progress	HBOI LOI was accepted. Full proposal was submitted in early June. Awaiting decision.										
N/A	Partially Funded	Samsons Island Submerged Lands Restoration (SISLR)	Competitive Grant	IRL NEP	Subcontract for City of Satellite Beach	TBD	2020	N/A	N/A	N/A	N/A
Staff	PT: Coldren; Support Staff: Tiling										
Description	Funds received would support seagrass and oyster restoration at Samsons Island in Satellite Beach										
Progress	Proposal was partially funded by IRL NEP (~50%). Satellite Beach PIs are currently seeking additional funding for the remainder of the project. Extent of FOS involvement to be decided once funding is finalized. Original request was \$11,310 for FOS.										
N/A	Not Awarded	The role of seeds in the resilience and restoration of shoal grass, Halodule wrightii, in the Indian River Lagoon	Competitive Grant	FL Sea Grant	Subcontract for UF	LOI only; No final budget	2020 & 2021	N/A	N/A	N/A	N/A
Staff	PI: Tiling										
Description	Funds received would support a study on seagrass seeds. FOS would be involved in seed germination and nursery growth with test plantings.										
Progress	Letter of Intent was submitted to FL Sea Grant. We received 2 positive and 1 negative reviews, but LOI was not selected for full proposal.										
N/A	Not Awarded	Multiple Stressors and Mutualism Breakdown- When and where do we find positive effects of the seagrass bivalve interactions?	Competitive Grant	NSF Biological Oceanography	Subcontract for UF	\$25,000	2020 & 2021	N/A	N/A	N/A	N/A
Staff	PI: Tiling										
Description	Funds received would support personnel and supplies for seagrass-bivalve in field restoration experiments.										
Progress	Proposal was submitted to NSF but was not selected.										