

Flagship Programs

FLOOR

- We are currently collecting 30 – 50 buckets of shell a week from our 21 partnering restaurants.
- We held two bagging event over the last month with a limited capacity of volunteers in order to maintain social distancing.
- Oyster spat was collected and counted in late February and oyster biomass was harvested in mid-March. See Figure 1 for results and details. Next oyster spat collection is scheduled for March 24th, 2021.

FOSTER

- Seagrass nursery volunteers are lending a helping hand in the nursery and wet lab. Volunteers are keeping the tanks and wet lab clean and free of algae while maintaining social distance. We could not do it without them!
- The *Citizen Science Seagrass Network (CSSN)* is full steam ahead! The program goal is to assess the state of seagrass habitat and the overall health of the Indian River Lagoon with the help of our volunteers. As an in-water activity, volunteers monitor seagrass beds once a month on their own shoreline or a nearby publicly accessible location. Volunteers have completed a series of webinars hosted by staff scientists and have now graduated on to in-person training sessions. By May, we hope to have them comfortable and confident in monitoring seagrass independently.

WaterQUEST

- Individuals that are comfortable with testing at public sites are doing so while maintaining social distancing guidelines. Out of the 29 active testing sites, we are averaging 26 sites a week, with one site tested by staff (FOS Dock).
- Some volunteers have retired, but we have been able to fill their sites with volunteers eager to join the program.
- Weekly water quality reports are being published each week: [Click here to see the latest report.](#)
- [Click here](#) to subscribe to the weekly Water Quality report.

Living Shorelines

- The permitting process is well underway for 5 potential living shorelines. These shorelines will be used to test plastic-free alternatives to plastic mesh oyster bags. To construct a living shoreline in the IRL or SLE, a number of steps must be completed to obtain a permit through the Department of Environmental Protection (DEP) and the Army Corp of Engineers (ACOE). We plan on having our permits submitted to DEP in early spring and hope to be issued permits by late spring.
- *Plastic-Free Alternatives to Oyster Bags (Grant)* –While waiting on the permits, the hands-on portion of the project has begun! We are constructing 4 plastic-free modules to be tested in the IRL and SLE.
- *Hagan Family Foundation Project (Grant)* – No updates. This work is dependent on permitting and cannot begin until DEP and ACOE permits are obtained.

Additional Projects and Activities

New Research Associate – We are excited to announce another new Research Associate, Austen Zugelger, who started on March 8th. Austen is a Florida native and was born and raised right here on the treasure coast (Vero Beach). He attended Florida Tech where he received his bachelors in Aquaculture and then a masters in Marine Biology at FIT. After graduating, he worked for FWC in their fisheries independent monitoring program based in the IRL. We are excited to have him on board!

FL Sea Grant LOI – No updates.

Research Lab Replacement – The finishing touches to the lab (carport, pavers, etc.) are still on hold. We hope to have the carport constructed this spring with the help of Operations.

Clam Restoration Workshop – No updates.

Clam Restoration in the IRL – We have been busy planning experiments and logistics. We are currently waiting on the statement of work (SOW). Staff will travel to Brevard County on March 30th for site selection.

Mangrove Productivity in Transitional Systems – No updates.

Jensen Beach Impoundment Restoration – Staff went out on March 17th to collect mangrove biomass data. The team took tree and water measurements.

Seagrass Signs – No updates.

Amazon Wish list – We have populated the [FOS Amazon wish list](#) with items our department desperately needs (along with the Animal Care Department). Please share with your family and friends!

Wetland Biogeochemistry Symposium – Dr. Simpson is chairing a session at the 13th Annual Wetland Biogeochemistry Symposium on March 25th, 2021. Her session is titled *Shifting Ecosystems: Consequences for Decomposition in Coastal Wetlands*, and has speakers in it from multiple government and academic institutions from around the country. She is excited to introduce Florida Oceanographic to the group. The meeting will be virtual this year, and Dr. Simpson is busy with the other organizers in making a smooth transition from an in-person to virtual meeting.

Indian River Lagoon Symposium – Dr. Simpson presented work from the JBI monitoring project on February 19th, 2021.

Tucker Cove Restoration – No updates.

Coastal Estuarine and Research Federation - Dr. Simpson is chairing a session at the [26th Biennial Coastal Estuarine and Research Federation \(CERF\) Conference](#). The special session will focus on the science behind mangrove encroachment and will give FOS a platform to expand our scientific reach.

Oyster Spat Monitoring – We are nine months into our monthly monitoring program. We monitor oyster spat recruitment at three sites in the SLE (0.25 – 12 ppt) and three sites in the IRL (15 – 27 ppt). Each month we put out oyster shells and then collect them a month later. The number of spat per shell is counted (Figure 1). Last month we recorded less than 1 spat settling per shell in the SLE and IRL. We are in the slow recruitment months, so the numbers are not abnormal. Oyster recruitment should pick back up in April.



Oyster Biomass Monitoring – Twice a year we harvest 10 oysters from each of our monitoring locations. By harvesting oysters, we are able to assess their condition index, or relative health, in the IRL and SLE. Stay tuned for our results in next months updates!

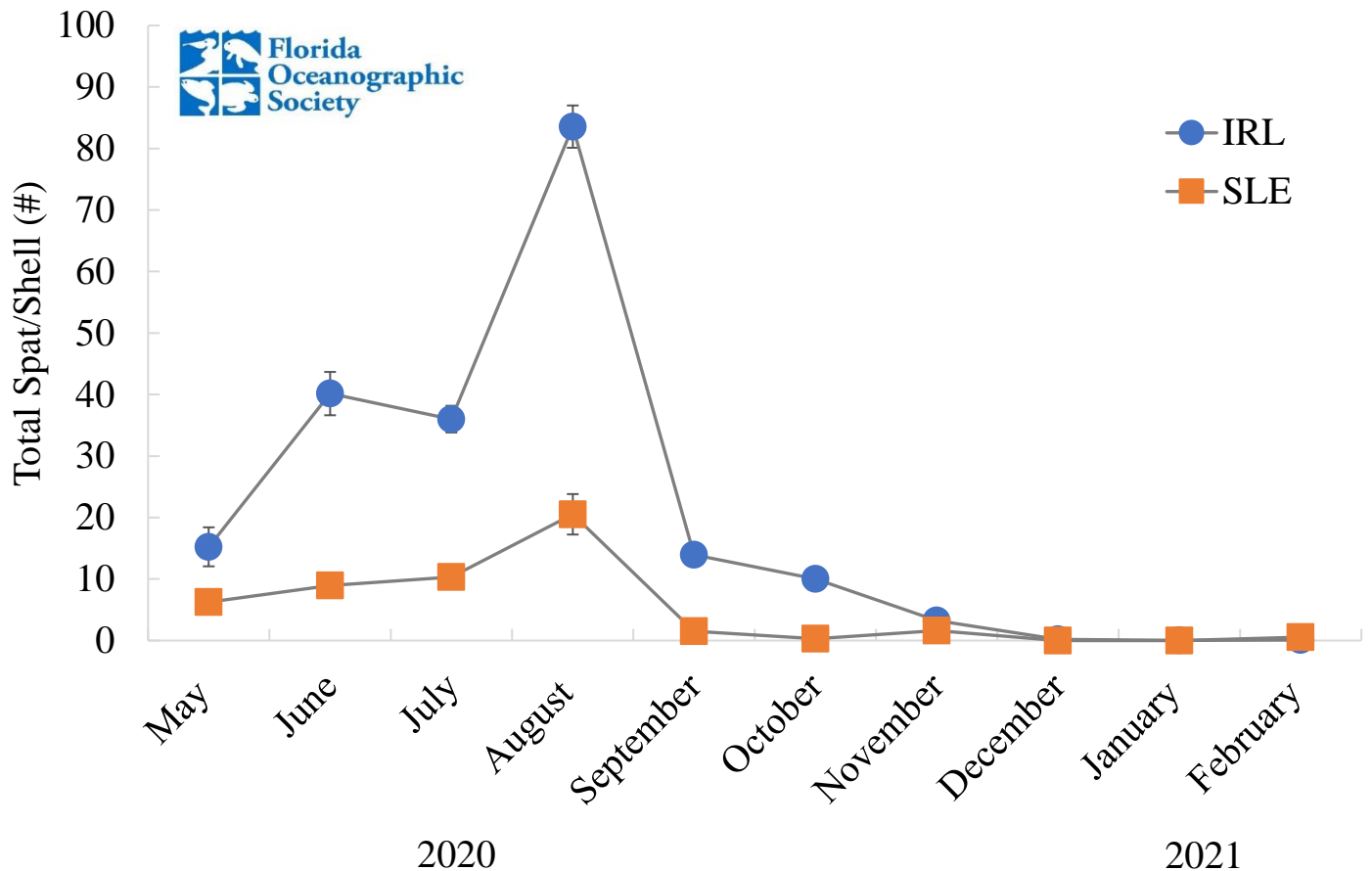


Figure 1. Oyster spat per shell in the Indian River Lagoon (IRL) (blue) and St. Lucie Estuary (SLE) (orange). Data are means \pm SE. Each month oyster shells are deployed at 6 sites and then collected a month later. The number of spat per shell is counted.

Additional details on all projects and programs are available by contacting Dr. Simpson at: lsimpson@floridaocean.org – 772.225.0505 x 114. Or check out our [website!](#)

Externally Funded Projects - In Progress

#	Project Title	Status Details	Funding Type	Source	Lead Institution	Funding Amount to FOS	Fiscal Year	Income Expected at?	Income Expected Date?
1	Seagrass Nursery Expansion	Funds received, but are still being spent out. Anticipated Completion by April 2020.	Donations	Oceans Alive Cash Call	FOS	\$72,000	2018-2020		Actual - Mar. 2018
2	Research Lab Replacement Trailer	Waiting on Operations to build the Carport.	Donations	Private	FOS	\$40,000	2019 - 2020		Actual - ???
3	Jensen Beach Impoundment Restoration	Aquatoll download and vegetation monitoring is still in progress	Competitive FWC IRMA funds	FWC Funds for IRMA Recovery	Martin County	\$10,925	2020	Completion	Expected - Jun. 2020 & Jun. 2021
4	Samsons Island Submerged Lands Restoration (SISLR)	Deployment of oysters and seagrass mats is scheduled for April 9th, 16th and 23rd.	Competitive Grant	IRL NEP	City of Satellite Beach	\$11,310	2020 - 2021	Completion	Expected - Nov. 2021
5	Developing plastic-free alternatives for community-based oyster restoration in the Indian River Lagoon	Working on permitting. Construction of modules has begun!	Competitive Grant	IRL NEP	FOS	\$22,364	2021	Completion	Nov. 2021
6	Creating a Citizen Science Seagrass Monitoring Network	Webinars are complete. In-person training has begun.	Competitive Grant	IRL NEP	FOS	\$3,119	2020 - 2021	Completion	July 2021
7	Restoring Shorelines in Martin County	Working on permitting.	Competitive Grant	Hagan Family Foundation	FOS	\$10,000	2021	Initiation	Paid
8	Clam Restoration Workshop	Workshop will be held on September 17th. Currently working with collaborators on logistics.	Competitive Grant	CERF	SEERS	\$2,000	2021	Completion	November 2021
9	Chase Living Shoreline	Waiting for her rip rap to be installed	Donation	Private	FOS	1000	2020	Paid	

Externally Funded Projects - Proposals Selected for Funding

#	Project Title	Status Details	Funding Type	Source	Lead Institution	Funding Amount to FOS	Fiscal Year
1	Levergaing natural selection in clam populations for improved water quality in the Indian River Lagoon	Waiitng on SOW	Competitive Grant	SJWMD	Brevard Zoo	\$190,275	2021-2022
2	Monitoring Improved Hydrology, Water Quality, and Mangrove Recovery in Jensen Beach	Selected February	Competitive Grant	IRL NEP	FWC	\$11,427	2021-2022
3	Restoration of clam populations in the Indian River Lagoon for Water Quality Improvement	Selected February	Competitive Grant	IRL NEP	Whitney Lab	\$13,000	2021-2022

Externally Funded Projects - Proposals Submitted

#	Project Title	Status Details	Funding Type	Source	Lead Institution	Funding Amount to FOS	Fiscal Year
1	Oyster Enhancement at Tucker Cove	Full proposal submitted on Dec 4, 2020	Competitive Grant	FWC MEHRMA	DEP	none	2021-2022
2	Assessing development of ecosystem structure and function in restored oyster reefs of the Indian River Lagoon and St. Lucie Estuary, Florida	LOI submitted on 15 Feb 21	Competitive Grant	FL Sea Grant	FOS	\$66,558.00	2022-2024
3	Overcoming Barriers to the Reintroduction of Hard Clam (<i>Mercenaria</i> sp.) Aquaculture and Restoration of Environmental Condition in the Indian River Lagoon	LOI submitted on 15 Feb 21	Competitive Grant	FL Sea Grant	Whitney Lab	\$50,000.00	2022-2024

Externally Funded Projects - Complete - Awaiting Payment

Project Title	Status Details	Funding Type	Source	Lead Institution	Funding Amount to FOS	Fiscal Year	Income Expected at?	Income Expected Date?