



**- 2026 Oyster Workshop Agenda -**

**Oyster Integrated Mapping and Monitoring Program (OIMMP), Statewide Ecosystem Assessment of Coastal & Aquatic Resources (SEACAR), Florida Oyster Recovery Science (FORS)**

**Guana Tolomato Matanzas National Estuarine Research Reserve  
505 Guana River Rd #6527, Ponte Vedra Beach, FL 32082  
April 14 – 15, 2026**

**Workshop Goals:**

- Bring together representatives from coastal wetland mapping and monitoring programs across the state to foster communication regarding mapping and monitoring methodology, gaps, and needs.
- Discuss the status and trends of Florida’s oysters.
- Facilitate communication between members of OIMMP, SEACAR, and FORS.
- Identify ways to improve data sharing and collaboration across local, regional, and statewide mapping and monitoring efforts.

**Tuesday, April 14<sup>th</sup>**

**12:30 – 1:00 pm**      **Sign-in, set up poster displays** (lunch not provided; we encourage participants to eat prior to the workshop or bring a lunch)

**1:00 – 1:45 pm**      **Welcome to the workshop** – Kara Radabaugh, Casey Craig, Steve Geiger, Mathias Cramer  
**Attendee introductions**  
**Overview of programs and data products:**  
                   **OIMMP** – Kara Radabaugh  
                   **SEACAR** – Cheryl Clark  
                   **FORS** – Katie Konchar

**1:45 – 2:30 pm**      **Oral presentations -- Theme: Oyster mapping, monitoring, and modeling**

<u>Time</u>	<u>Presenter</u>	<u>Presenter affiliation</u>	<u>Title</u>
1:45 pm	<b>Greg Herbert</b>	University of South Florida	Relevance of historical data for managing west Florida's oyster habitats in a changing world
2:00 pm	<b>Nikki Dix</b>	Guana Tolomato Matanzas National Estuarine Research Reserve	Spatial and temporal patterns in intertidal oyster reef characteristics within the Guana Tolomato Matanzas estuary

2:15 pm	<b>Allix North</b>	Florida Department of Environmental Protection, Office of Resilience and Coastal Protection	Using UAS to map and model intertidal oysters
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**2:30 – 2:40 Questions**

**2:40 – 3:00 pm Break**

**3:00 – 4:45 pm Oral presentations -- Theme: Restoration projects and subtidal oysters**

<u>Time</u>	<u>Presenter</u>	<u>Presenter affiliation</u>	<u>Title</u>
3:00 pm	<b>Bill Pine*</b>	SWCA Environmental Consultants	Oyster ROCKS - A community led restoration project to Restore Oyster Cultch and Knowledge Systems
3:15 pm	<b>Damon Moore, Abbey Kuhn</b>	Oyster River Ecology, Inc	Oyster restoration using Oyster Rag Pots
3:30 pm	<b>Erik Neugaard</b>	ECS Florida, LLC	South Florida community oyster gardening program
3:45 pm	<b>Beth Orlando</b>	Palm Beach County Environmental Resources Management	Optimizing oyster reef design: Comparing bedding stone and riprap for recruitment and habitat performance
4:00 pm	<b>Laura Geselbracht*</b>	The Nature Conservancy	Update on the Pensacola East Bay project
4:15 pm	<b>Matthew Davis</b>	Florida Fish and Wildlife Conservation Commission, Fish and Wildlife Research Institute	An update on FL-TIG oyster data gaps project in the Panhandle
4:30 pm	<b>Erica Williams</b>	Florida Fish and Wildlife Conservation Commission, Fish and Wildlife Research Institute	Development of a habitat suitability model for the eastern oyster ( <i>Crassostrea virginica</i> ) in Florida estuaries

\*remote presentation

**4:45 – 5:00 pm Questions, Day 1 Conclusion, Day 2 overview**

**6:00 – 8:00 pm Social at Auggie's Draft Room (3 St George St, St. Augustine, FL 32084)**

**Wednesday, April 15<sup>th</sup>**

**8:00 – 8:30 am** Day 2 sign in

**8:30 – 8:45 am** **Welcome, discussion of online resources** – Kara Radabaugh

**8:45 – 9:45 am** **Oral presentations -- Theme: Incorporating data and management**

<u>Time</u>	<u>Presenter</u>	<u>Presenter affiliation</u>	<u>Title</u>
8:45 am	<b>Casey Craig</b>	Florida Fish and Wildlife Conservation Commission, Fish and Wildlife Research Institute	How does OIMMP compile oyster maps?
9:00 am	<b>Kelly Williams</b>	Florida Fish and Wildlife Conservation Commission, Fish and Wildlife Research Institute	Current status and future of Apalachicola oysters
9:15 am	<b>Morgan Eason</b>	Florida Fish and Wildlife Conservation Commission, Division of Marine Fisheries Management	Oyster harvest management in Florida
9:30 am	<b>Tyler Hill</b>	Florida Department of Environmental Protection	SEACAR frontiers: Supporting data-driven management planning

**9:45 – 9:55** **Questions**

**9:55 – 10:15 am** *Break*

**10:15 – 10:30** **Introduction to Breakout groups** – Vincent Encomio, Cheryl Clark, Kara Radabaugh

**10:30 – 11:30 am** **Breakout groups (In-person only)**

**11:30 am – 12:00 pm** **Report results from breakout groups & facilitated discussion**

**12:00 – 12:45 pm** *Lunch Break* – We encourage participants to bring lunch as there is no food available for purchase close to GTMNERR. There are a handful of food options in the Vilano Beach Town Center (~15-minute drive).

**12:45 – 1:30 pm** **Poster session (In-person only)**

<u>Poster presenter</u>	<u>Presenter affiliation</u>	<u>Poster Title</u>
<b>Emily Surmont</b>	Florida Department of Environmental Protection/ University of Florida	Science for decision-making: Moving oyster reef restoration science forward through collaboration and innovation

<b>Linda Walters</b>	University of Central Florida	Basalt restoration bag material: unintended consequences on the eastern oyster <i>Crassostrea virginica</i>
UCF Advanced Marine Biology students, Katherine Harris, Paul Sacks, <b>Linda Walters</b>	University of Central Florida	Changes in latitudes, changes in habitudes: monitoring mangrove expansion on Mosquito Lagoon oyster reefs
<b>Cheryl Clark</b>	Florida Department of Environmental Protection, Office of Resilience and Coastal Protection	SEACAR promotes data-driven coastal habitat management
<b>Cheryl Clark</b>	Florida Department of Environmental Protection, Office of Resilience and Coastal Protection	Measuring dead, buried oyster shells can help fill historical data gaps
<b>Samantha Russo</b>	St. Johns River Water Management District	Mapping oyster beds using WorldView Imagery: A comparison of object-based and pixel-based classification approaches
<b>Stacy Brown</b>	Urban Farming Institute / South Florida Association of Environmental Professionals	South Florida community oyster gardening: Oyster Reefs, microbiomes & water quality assessment
<b>Tess Sailor-Tynes</b>	Marine Discovery Center	Marine Discovery Center is your oyster: Habitat restoration materials and vendorship resources
<b>Ray Grizzle, Krystin Ward, Tom Waddington, Tom Reis</b>	University of New Hampshire / Substructure	Methods for mapping subtidal oysters

1:30 – 2:45 pm

**Oral presentations -- Theme: Ecology and ecosystem function**

<u>Time</u>	<u>Presenter</u>	<u>Presenter affiliation</u>	<u>Title</u>
1:30 pm	<b>Cara Womacks</b>	University of Central Florida	Macrofaunal and macroalgal biodiversity on oyster reefs restored with novel non-plastic materials
1:45 pm	<b>Katherine Harris</b>	University of Central Florida	Interactive effects of thermal stress, algal blooms, and a habitat shift on oyster loss and recovery
2:00 pm	<b>Tara Blanchard</b>	University of Central Florida	Ecological consequences of oyster reef fragmentation for avian and macroinvertebrate communities in Mosquito Lagoon
2:15 pm	<b>Cadie Barnes</b>	University of Central Florida	Characterizing composition and nutrients released by alternative restoration materials

2:30 pm	<b>Erin Tilly</b>	University of Central Florida	Reef surface structure and sediment biogeochemistry across Franklin County, FL: Assessing intertidal oyster reef condition using live oysters, shell clusters, and sediments characteristics
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**2:45 – 2:55 pm            Questions**

**2:55 – 3:15 pm            *Break***

**3:15 – 4:00 pm            Oral presentations -- Theme: Ecology and ecosystem function, continued**

<u>Time</u>	<u>Presenter</u>	<u>Presenter affiliation</u>	<u>Title</u>
3:15 pm	<b>Thomas Steinhoff</b>	Palm Beach County	Oysters in the Lake Worth Lagoon
3:30 pm	<b>Alberto Canestrelli</b>	University of Florida	Boat wakes dictate bank erosion and the loss of oyster filtration services in a small fetch estuary
3:45 pm	<b>Jacopo Composta</b>	University of Florida	Effect of restored reef geometry on sediment retention under different tidal and wave conditions

**4:00 – 4:10 Questions**

**4:10 – 4:30 Conclusion and future directions**



### **Florida Fish and Wildlife Conservation Commission and collaborators**

- Oyster Integrated Mapping and Monitoring Program (OIMMP)
  - Report: <https://myfwc.com/research/habitat/coastal-wetlands/projects/oimmp/>
  - FWRI monitoring methods: <https://archive.myfwc.com/archive/Research/Habitat/Coastal-Wetlands/OIMMP/oimmp-ch11-v2.pdf>
  - Workshop presentations and partner resources: <https://myfwc.com/research/habitat/coastal-wetlands/oimmp/workshop/>
  - Oyster Beds in Florida layer (map of live oyster extent): <https://geodata.myfwc.com/datasets/oyster-beds-in-florida/explore>
  - Index of oyster maps in Florida (map of all oyster maps): <https://experience.arcgis.com/experience/4b82f5d17a794543bddf889472a763eb>
- Coastal Habitat Integrated Mapping and Monitoring Program (CHIMMP)
  - Report: <https://myfwc.com/research/habitat/coastal-wetlands/projects/chimmp/>
  - Workshop presentations and resources: <https://myfwc.com/research/habitat/coastal-wetlands/chimmp/workshop/>
- Seagrass Integrated Mapping and Monitoring Program: <http://myfwc.com/research/habitat/seagrasses/projects/active/simm/>
- Cooperative Land Cover Map: <https://myfwc.com/research/gis/applications/articles/cooperative-land-cover/>
- Florida Conservation Planning Atlas (data source and tools): <https://flcpa.databasin.org/>
- State Wildlife Action Plan: <https://myfwc.com/conservation/special-initiatives/swap/>
- Florida ecological report cards: <https://flcpa.databasin.org/galleries/b3351ad55d9a4978bacf7345a8bc4cf3/#expand=282218%2C273601>
- FWC geodata: <http://geodata.myfwc.com/>
- FWC Research Information Center: <https://myfwc.com/research/publications/ric/>
- FWC commercial oyster fishery
  - Regulations: <https://myfwc.com/fishing/saltwater/commercial/oysters/>
  - 1950-1983 landings: <https://archive.myfwc.com/archive/Research/Habitat/Coastal-Wetlands/OIMMP/oimmp-appendices.pdf>
  - 1984 to present landings: <https://app.myfwc.com/FWRI/PFDM/ReportCreator.aspx>

### **Florida Oyster Recovery Science (FORS)**

- FORS guidance series: <https://myfwc.com/research/habitat/coastal-wetlands/oimmp/workshop>
- FORS website: <https://sites.google.com/view/fl-oyster-recovery-science?usp=sharing>
- FORS video channel: <https://www.youtube.com/@FORS-Est2019>

## Florida Department of Environmental Protection

- FDEP Statewide Ecosystem Assessment of Coastal and Aquatic Resources (SEACAR)
  - Homepage: <https://floridadep.gov/rcp/fcmp/content/statewide-ecosystem-assessment-coastal-and-aquatic-resources-seacar>
  - Data portal: <https://data.florida-seacar.org/>
- FDEP GIS data: <https://floridadep.gov/otis/enterprise-application-services/gis>
- Statewide land use/land cover map (compilation of water management district land cover maps): <https://geodata.dep.state.fl.us/datasets/statewide-land-use-land-cover/explore>
- FDEP Land Boundary Information System: <https://www.labins.org/>
- FDEP map direct gallery: <https://ca.dep.state.fl.us/mapdirect/>
- FDEP map of water quality, total maximum daily loads, and best management action plans: <https://fdep.maps.arcgis.com/home/webmap/viewer.html?webmap=1b4f1bf4c9c3481fb2864a415fbeca77>

## Florida Department of Agricultural and Consumer Services

- Shellfish Harvesting Areas: <https://www.fdacs.gov/Agriculture-Industry/Aquaculture/Shellfish-Harvesting-Area-and-Aquaculture-Lease-Map>

## Estuary Programs and collaborators

- Tampa Bay Estuary Program: <https://tbep.org/>
  - Tampa Bay oyster habitat suitability index: <https://tbep.org/oyster-habitat-suitability-index/>
  - Tampa Bay Water Atlas: <https://www.tampabay.wateratlas.usf.edu/>
  - Tampa Bay restoration projects: <https://tampabay.wateratlas.usf.edu/restoration/>
  - TBEP Technical Advisory Committee: <https://tbep.org/about-tbep/boards-committees/technical-advisory-committee/>
- Sarasota Bay Estuary Program: <https://sarasotabay.org/>
  - Sarasota Water Atlas: <https://sarasota.wateratlas.usf.edu/>
  - Tidal stream assessment project: <https://sarasota.wateratlas.usf.edu/tidal-stream-assessments>
  - SBEP Technical Advisory Committee: <https://sarasotabay.org/about-sbep/management-conference/technical/>
- Coastal and Heartland National Estuary Partnership: <https://www.chnep.org/>
  - Charlotte Harbor Water Atlas: <https://chnep.wateratlas.usf.edu/>
  - CHNEP Technical Advisory Committee: <https://www.chnep.org/technical-advisory-committee>
- Indian River Lagoon National Estuary Program: <https://onelagoon.org/irlnep/>
  - Indian River Lagoon Species Inventory: <https://irlspecies.org>
  - IRLNEP Management Conference: <https://onelagoon.org/who-we-are/management-board/>
- Pensacola and Perdido Bays Estuary Program: <https://www.ppbeb.org/>
  - PPBEP Technical Committee: <https://www.ppbeb.org/about/committees>
- St. Andrew and St. Joseph Bays Estuary Program: <https://sasjbep.org>
  - SASJBEP Science & Technical Committee: [https://sasjbep.org/about/advisory-committees/#science\\_technical](https://sasjbep.org/about/advisory-committees/#science_technical)

## National Estuarine Research Reserve System

- NERRS Science Collaborative resource library: <https://nerrssciencecollaborative.org/resources>
- NERRS Centralized Data Management Office: <https://cdmo.baruch.sc.edu/>
- Rookery Bay NERR: <https://rookerybay.org/>
- Guana Tolomato Matanzas NERR: <https://gtmnerr.org/>
  - GTMNERR publications: [www.stateofthereserve.org/publications](http://www.stateofthereserve.org/publications)
  - WETFEET Project: [www.wetfeetproject.com](http://www.wetfeetproject.com)
  - Planning for sea-level rise in the Matanzas Basin: <https://planningmatanzas.org/>
- Apalachicola NERR: <https://www.apalachicolareserve.com/>

## Florida Department of Transportation

- FDOT data portal: <https://www.fdot.gov/agencyresources/mapsanddata.shtm>
- FDOT aerial photography archive: <https://www.fdot.gov/gis/aerialmain.shtm>

## Water Management Districts

- Southwest Florida Water Management District (SWFWMD): <https://www.swfwmd.state.fl.us/resources/data-maps>
- South Florida Water Management District (SFWMD): <https://www.sfwmd.gov/science-data/gis>
- St. Johns River Water Management District (SJRWMD): <https://www.sjrwmd.com/data/>
- Suwannee River Water Management District (SRWMD): <http://www.srwmd.state.fl.us/154/GIS-Data>
- Northwest Florida Water Management District (NFWWMD): <https://nfwmd-open-data-nfwmd.hub.arcgis.com/>

## Everglades Resources

- Comprehensive Everglades Restoration Plan (CERP): <https://www.evergladesrestoration.gov/comprehensive-everglades-restoration-plan>

## Universities

- University of South Florida
  - Florida water resource monitoring catalog: <https://water-cat.usf.edu/>
  - Water atlas programs (listed under Estuary Programs, see above)
- University of Florida
  - Florida Geographic Data Library: <https://www.fgd.org/metadataexplorer/explorer.jsp>
  - University of Florida historical aerial photography collection: <https://ufdc.ufl.edu/collections/aerials>
- Florida State University
  - Florida Natural Areas Inventory database: <https://www.fnai.org/>
- University of Maryland
  - Media library of images for use in publications: <https://ian.umces.edu/media-library/>

## National Park Service/US Fish and Wildlife

- U.S. National Park Service's Integrated Resource Management Applications: <https://irma.nps.gov/Portal/>
- South Florida/Caribbean Network: <https://www.nps.gov/im/sfcn/index.htm>

- National Wetlands Inventory Wetlands Mapper: <https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper>

### **National Oceanic and Atmospheric Administration**

- NOAA sea-level rise viewer: <https://coast.noaa.gov/slr/#>
- NOAA digital coast: <https://coast.noaa.gov/digitalcoast/data/home.html>
- NOAA historical topographic surveys of historical habitat coverage: <https://shoreline.noaa.gov/t-sheets.html>
- NOAA data viewer: <https://coast.noaa.gov/dataviewer/#/>
- NOAA coastal imagery viewer: [https://geodesy.noaa.gov/storm\\_archive/coastal/viewer/index.html](https://geodesy.noaa.gov/storm_archive/coastal/viewer/index.html)
- NOAA tides and currents: <https://tidesandcurrents.noaa.gov/>
- NOAA coastal habitats and ecosystems maps: <https://www.ncei.noaa.gov/products/coastal-ecosystem-maps-gulf-mexico>
- NOAA funding: <https://seagrant.noaa.gov/funding/>

### **National Aeronautics and Space Administration**

- NASA Earthdata: <https://search.earthdata.nasa.gov/search>
- NASA G-LiHT image database: <https://glihtdata.gsfc.nasa.gov/>

### **US Geological Survey**

- USGS Earth Explorer: <https://earthexplorer.usgs.gov/>
- USGS Flood event viewer: <https://apps.usgs.gov/fev/event/2025-december-wa-id-or-mt-flood>
- USGS Gulf of Mexico Integrated Science: <https://pubs.usgs.gov/publication/ofr20051014>
- USGS Global Visualization Viewer (GloVis): <https://glovis.usgs.gov/>

### **The Nature Conservancy**

- TNC coastal resilience program: <https://coastalresilience.org/>
- TNC mapping tools: <https://geospatial.tnc.org/>, <http://maps.tnc.org/>

### **Other Online Resources**

- Living shorelines information: <http://floridalivingshorelines.com/>
- SECOORA data portal: <https://secoora.org/data/>
- Conservancy of Southwest Florida: <https://www.conservancy.org/>
- Gulf Online Mapping Open Data (GOMOD) platform: <https://gmod-portal-gomalliance.hub.arcgis.com/>
- Oyster Restoration Workgroup: <http://www.oyster-restoration.org/>