

Estuary Exchange

July 2025



**ST. ANDREW & ST. JOSEPH BAYS
ESTUARY PROGRAM**

at FSU PANAMA CITY

Together for the Bays

JULY 2025

As we celebrate our nation's independence this Fourth of July, let's ensure a safe and enjoyable day on the water and at the beach. Check out the tips below on recreating responsibly!



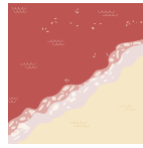
St. Andrew & St. Joseph Bays Estuary Program

Water Safety

Summer is here! Please remember to exercise water safety when visiting the beach. Click the images below to view resources that keep you safe and updated.



Florida Healthy Beaches Program



Red Tide Sampling

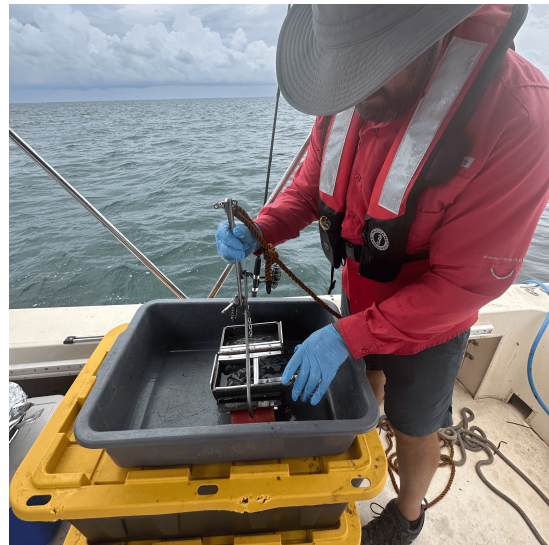


Beach Flags



Rip Current Safety

NCCA Highlights





SASJBEP and EPA Region 4 staff collecting samples for NCCA.

We recently completed sampling for the National Coastal Condition Assessment (NCCA) led by the U.S Environmental Protection Agency! The NCCA is a survey of the condition of marine and Great Lake resources across the U.S that is conducted every 5 years. SASJBEP increased the number of sampling stations in St. Andrew and St. Joseph Bays which will help us fill some data gaps and provide a more robust assessment of condition. We sampled water quality, sediment quality, benthic community condition, and fish tissue contaminants to understand the ecological and recreational condition of our waters. We expect some results this fall so stay tuned for updates!

[You can check out our recent news article with MyPanhandle to learn more!](#)



It's seagrass seed season!

Keep your eyes peeled for these round, green seeds along the shore and email estuaryprogram@pc.fsu.edu if you see any!

Race for the Bays: Registration is now open!



Join the Estuary Program in celebrating National Estuaries Week! Sign up to walk or run through Panama City Beach Conservation Park on September 27th, 2025 and support the Estuary Program in our efforts to continue to improve our natural resources.

[Register to Run](#)

[Sponsor the Event](#)

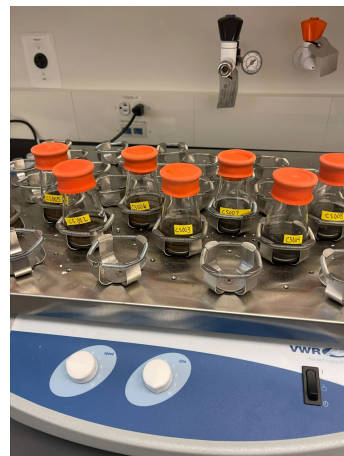
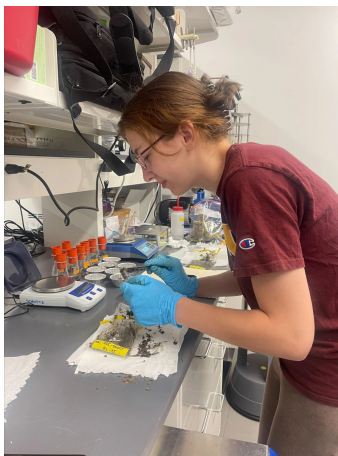
Science Corner

Denitrification: What it is and why we measure it

Many ecosystems in our watershed naturally help keep our water clean by removing excess nutrients—a valuable service known as nutrient removal. One important way this happens is through a process called denitrification, which occurs in soils and sediments. During denitrification, nitrate (a form of nitrogen commonly found in fertilizer runoff) is converted into nitrogen gas (N₂) and safely released into the atmosphere. This helps prevent nutrient pollution, which can decrease water quality.

As part of the CSTARS project, the SASJBEP team is studying how living shorelines support this process. From June through July, our team has been out in the field collecting samples, which are now being analyzed in partnership with Rowan University. By measuring denitrification, we hope to better understand how living shorelines can contribute to cleaner, healthier waterways.

Stay tuned for results—and in the meantime, check out some behind-the-scenes photos of our team in action!



SASJBEP staff collecting soil samples and Rowan University processing them to quantify potential denitrification.

Recent Revelant Research

Click the images to view articles.



Diamondback Terrapin Resource Use in a Seagrass-Dominated Coastal Bay Varies by Life Stage.



Research Needs for Effective Coastal NbS:
Effective coastal NbS are defined by their ability to meet ecosystem service provision goals.

- Quantify the effects of project design and materials on achievement of ecosystem service provision goals.
- Explore trade-offs in achieving multiple project goals (e.g., protection of human assets vs. ecological habitat provision) across varied hydrographic and socioeconomic settings.
- Refine understanding of changes in ecosystem service provision over time for varied and under-researched services.
- Expand studies comparing coastal NbS with alternative approach(es), e.g., shoreline armoring.

Research Needs for Sustainable Coastal NbS:
Sustainable coastal NbS are defined by their longevity in functionality and adaptability to change.

- Identify barriers to long-term persistence of ecosystem service provision.
- Assess best practices for designing adaptable coastal NbS to cope with environmental change or unforeseen threats.
- Refine decision criteria for assessing when coastal NbS are not feasible.

Research Needs for Widespread Adoption of Coastal NbS:
Widespread coastal NbS are defined by willingness and preparedness to adopt practices across broad geographic and socioeconomic settings.

- Understand and improve best practices for transdisciplinary communication and knowledge transfer.
- Advance best practices for implementation of training programs, guideline development, and materials used to support the implementation of NbS.
- Understand differences in stakeholder perceptions and preferences that influence NbS decisions.
- Advance economic valuation of NbS for improved tradeoffs assessment in support of policy development, governance, and decisions.

A Blueprint to Greener Shorelines:
Advancing the Effectiveness, Sustainability,
and Widespread Adoption of Coastal
Nature-Based Solutions Through
Transdisciplinary Research.



ST. ANDREW &
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at FSB PANAMA CITY

Ask A Scientist!

Have a question about our bays, local wildlife, or want to know more about the estuary program? We've got answers! Submit your questions, and our scientists will answer them in

Ask a Scientist

Question: "What is an estuary?" - A.

Answer:

An estuary is a unique and important coastal area where freshwater from rivers and streams meets and mixes with saltwater from the ocean – or in our case, the Gulf of America. This mixing creates rich, brackish water that supports a variety of life.

Estuaries are often called the nurseries of the sea because many fish, shellfish, and other marine animals begin their lives in these sheltered waters before heading out to the Gulf in adulthood. Ecosystems within estuaries also serve as feeding and resting grounds for birds, provide protection from storms and flooding, and help filter pollutants from water.

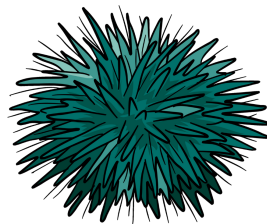
Here in the Florida Panhandle, the St. Andrew Bay estuary is home to thriving ecosystems—and is vital to both wildlife and people!

You can find additional information about estuaries at the links here:

<https://coast.noaa.gov/nerrs/about/what-is-an-estuary.html>

<https://www.epa.gov/nep/basic-information-about-estuaries>

- Dr. Ryann Rossi, Estuary Scientist



Sea Urchin Survey

Help us monitor the sea urchin population and support the recovery of seagrass in both St. Andrew and St. Joseph Bays by reporting sea urchin sightings.

[Click here to report your sightings.](#)

Thank you for your participation!

Community Events

Click the images to explore upcoming events throughout the St. Andrew Bay Watershed!



Events in Panama City



Events in Panama City Beach



Events in South Walton County



Events in Gulf County



Events in Mexico Beach



Gulf County Chamber of Commerce - Events



June 4th, 2025

Salute to Freedom Festival

Join our community at the Panama City Marina for a day of patriotic festivities, family-friendly activities, and a breathtaking fireworks display. The July 4th Salute to Freedom Festival promises to be a memorable experience for all ages, with a lineup of exciting activities and



July 19th, 2025

Gulf County Coastal Community Association Annual Meeting

Join the South Gulf County Coastal Community Association Annual Meeting to hear from presenters on pressing topics as well as interact with local environmental groups during table talks!

entertainment. This family-friendly event is free and open to the public.

When: July 4th, 2025 from 4pm - 10pm CDT

Where: Destination Panama City; 101 W. Beach Dr.

When: July 19th, 2025 from 10am - 12pm EDT

Where: Centennial Building, 300 Allen Memorial Way

Learn More

Upcoming Meetings

Policy Board Meeting

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August 27th, 2025

1:00pm-3:00pm CST; Room A301 Deans Conference Room; FSU PC Holley Building
<https://fsu.zoom.us/j/99362305989> o Meeting ID: [994 7324 3671](#) o Passcode: 342269

Join Zoom

Management Council Meeting

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August 8th, 2025

10am-12pm CST; Room A301, Deans Conference Room; FSU PC Holley Building Join Via Zoom: <https://fsu.zoom.us/j/99362305989> Meeting ID: [993 6230 5989](#)

Join Zoom

Science and Technical Committee Meeting

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August 21st, 2025

1:00 - 2:30 PM CDT; FSU PC Administrative Building Conference Room 108; Zoom
Meeting ID: [935 2145 7426](#)

[Join Zoom](#)

Stormwater Working Group

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August 13th, 2025

10am-11am CDT; Virtual only. Join on Teams: o Meeting ID: [268 804 956 253](#) o
Passcode: g4zt9qd7

Teen Outreach Committee Meeting

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Meeting Date TBD

Our first meeting date for the 2025-2026 school year is to be determined.

[Join the TOC](#)

Tides and Talks

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August 14th, 2025

Patty Kelly with the United States Fish and Wildlife Service will be joining us on August 14th to discuss the Panama City Crayfish.

[Learn More](#)

To access all past meeting materials, notes, and presentations, visit our [Library of Resources](#) page on our website. Link directly by clicking below!

[Library of Resources](#)

[Florida State University Panama City Campus Map](#)

Volunteer Opportunities

Shell Island Beach Cleanup - Saturday July 19th

St. Joe Beach Cleanup - Saturday July 19th



The SASJ Bays Volunteer Network connects organizations with passionate members of the community that are interested getting involved. Join the email list to receive updates on upcoming volunteer opportunities from across the partners across the watershed and share organized events with others!

Join the Email List

Job Opportunities

Florida Trail Association

- [Panhandle Regional Trail Program Manager](#)

FSU Coastal Marine Lab

- [Restoration Coordinator](#)

Choctawhatchee Basin Alliance

- [Education and Outreach Specialist](#)
- [Ecology Technician](#)

Contact us at estuaryprogram@pc.fsu.edu



St. Andrew and St. Joseph Bays Estuary
Program

estuaryprogram@pc.fsu.edu

4750 Collegiate Drive

Panama City, FL 32405

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