

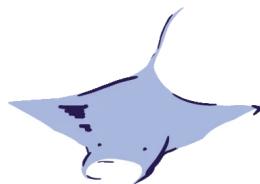
## *Estuary Exchange*

January 2025



### **ST. ANDREW & ST. JOSEPH BAYS ESTUARY PROGRAM** *at FSU PANAMA CITY*

*Together for the Bays*



Happy New Year from the St. Andrew and St. Joseph Bays Estuary Program!

As we dive into 2025, we're thrilled to share the exciting initiatives and events lined up for the months ahead. From new grants coming online to exciting Tides and Talks meetings and outreach events, there is plenty to look forward to this year.

*State of the Watershed Report*



This data viewer serves as a companion to the State of the Watershed Report (SOWR) and is a tool that provides access to condition maps and data for metrics in the SOWR. On the home page you can select buttons that will link you to the SASJBEP website or Comprehensive Conservation and Management Plan (CCMP). Select one of the sections below to explore data used in the SOWR more closely, scroll down to view a short introduction, or use the collapsible navigation bar on the left to access a user guide and move between sections.

The dashboard homepage features a grid of seven cards, each representing a different environmental metric or action area. Each card includes a small image, a title, a list of specific metrics, and a right-pointing arrow indicating further information. The cards are:

- Water & Sediment Quality & Quantity**
  - Nutrients
  - Bacteria
  - Water Clarity
  - Harmful Algal Blooms
  - Sanitary Sewer Overflows
  - Salinity
- Ecosystem Extent & Quality**
  - Seagrass
  - Longleaf Pine (LLP)
  - Fire Return Interval for LLP
  - Beaches
  - Wetlands
- Wildlife**
  - Oysters
  - Scallops
  - Shorebirds
  - Sea Turtles
  - Invasive Species
  - Fish
- Nature Based Solutions**
  - Nature Based Solutions Implementation
- Natural Infrastructure**
  - Conservation Lands in Public Ownership
  - Greenspace
  - Tree Canopy Cover
- Risk Reduction**
  - Compound Flood Risk
  - Wildfire Risk
- Stewardship**
  - Volunteer Interest
  - Event Attendance
  - Partner Engagement
  - Reach

Below the cards is a banner with the text "Scroll for Introduction and Acknowledgements" and "CCMP". At the bottom of the page are links to "Image Credit: Pediush Media", "sasjbep.org", and "Image Credit: St. Andrew Bay Watch".

We're taking a moment to celebrate the completion of our first State of the Watershed Report! This report provides a baseline of condition that can be used to measure progress in ecosystem health and function in response to management actions. The SOWR evaluates 11 indicators and 31 metrics, offering a comprehensive assessment of key ecosystems and species and highlights current conditions, trends, and maps to spatially illustrate the results.

Click the link below to view the dashboard:

[View the Dashboard](#)

## Science Corner



FWC and volunteers rescue cold stunned sea turtles in St. Joseph Bay.

## Chill Factor: What Freezing Events Mean for Wildlife

Temperature is an important factor contributing to many species' survival and expansion. Many of our species are sensitive to cold events, such as the one we're experiencing this week. Some cold sensitive species we have in our watershed include mangroves, sea turtles, manatees, and many others.

Freezing temperatures can impact how species function by impacting their physiology (e.g., protein denaturation, membrane damage, DNA breakage) and may cause long-term damage and even death. One way some species overcome cold events is by altering the way they grow or finding warm water refuges.

For example, Black Mangroves can resprout post freezing events and typically grow in a more shrub like fashion in areas more prone to cold events (you can see this in St. Joseph Bay) while manatees find areas like springs that have more consistent water temperatures.

You can see trends for days below freezing in counties in our watershed at the tool here:

[CMinTEx](#)

---

Kang, Y., Kaplan, D. A., & Osland, M. J. (2024). Linking temperature sensitivity of mangrove communities, populations and individuals across a tropical-temperate transitional zone. *Journal of Ecology*, 112, 1256–1274. <https://doi.org/10.1111/1365-2745.14296>

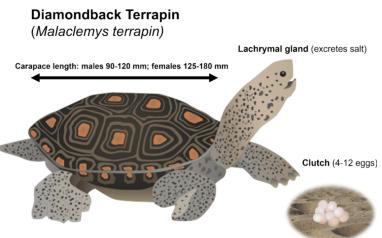
Paper with information: Osland, M. J., Stevens, P. W., Lamont, M. M., Brusca, R. C., Hart, K. M., Waddle, J. H., ... & Seminoff, J. A. (2021). Tropicalization of temperate ecosystems in North America: The northward range expansion of tropical organisms in response to warming winter temperatures. *Global Change Biology*, 27(13), 3009–3034.

## Recent Relevant Research

*Click the images to view articles.*



Marshes to mangroves: Residential surveys reveal perceived wetland trade-offs for ecosystem services.



Salt Marsh Habitats and Diamondback Terrapins in a Rapidly Changing Climate: A Review.

ST. ANDREW AND ST. JOSEPH BAYS ESTUARY PROGRAM  
PRESENTS



ST. ANDREW &  
ST. JOSEPH BAYS  
ESTUARY PROGRAM  
at FSU PANAMA CITY

# Tides & Talks

WHERE CONVERSATION STARTS

AND STEWARDSHIP FLOWS



January Topic: Recreational Fishing

When: Thursday, January 16th, 3:00PM CDT

Where: Destination Panama City, 101 West Beach Dr.

For more info go to:

[sasjbep.org/events/tidesandtalks](http://sasjbep.org/events/tidesandtalks)

## Tides and Talks

Join us for Tides and Talks: Recreational Fishing!

This month's event features two incredible guest speakers:

Gina Alvarez, Division of Marine Fisheries Management, FWC

Stan Levanduski, Salt Strong Panama City Chapter

Gina will share insights into the status and management of local fish species, providing an overview of how fisheries are monitored and maintained for sustainability.

Stan will introduce the Salt Strong Panama City fishing chapter, highlighting how it connects anglers in Panama City and provides resources to enhance your fishing skills.

When: Thursday, January 16th

Where: Destination Panama City

Whether you're a seasoned angler or just getting started, this event is the perfect opportunity to learn more about the science and communities behind recreational fishing.

Bring your questions and get ready for an engaging discussion!

Free and open to the public. Share and bring a friend!

[Facebook Event](#)

[Meeting Recordings](#)

[Zoom Link](#)



## Stormwater Survey



Help us inform future stormwater outreach and education by completing this short, anonymous survey!

[Click here to take the survey.](#)

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



January 13th, 2025

## Gulf Tree Training Workshop

Learn how to utilize Gulf TREE to help find relevant climate and resilience tools for your projects and research. Lunch Included!

When: Monday, January 13th

Where: Gulf Coast State College

[RSVP](#)



February 1st, 2025

## Winter Bay Day

Friends of St. Joseph Bay Preserves present a day of education, shrimp and music. Learn about the preserves and life along the bay. There will be lots to see and lots to do. Best of all, the Low Country Shrimp Boil will be delicious – as always! Meet you on the deck of the Visitor Center!

When: Saturday, February 1st

Where: St. Joseph Bay Buffer Preserve

[Learn More](#)

## Upcoming Meetings

### Policy Board Meeting

+

February 22nd 2025

1:00pm-3:00pm CST; Room A301 Deans Conference Room; FSU PC Holley Building

[Join Zoom](#)

## February 14th, 2025

10am-12pm CST; Room A301, Deans Conference Room; FSU PC Holley Building

[Join Zoom](#)

## Science and Technical Committee Meeting

### January 16th, 2025

1:00 - 2:30 PM CDT; FSU PC Administrative Building Conference Room 108; Zoom  
Meeting ID: [951 2894 7956](#)

[Join Zoom](#)

## Stormwater Working Group

### February 12th, 2025

10am-11am CDT; Virtual only. Join on Teams: Meeting ID: [282 949 018 873](#) Passcode:  
PuMb83

## Teen Outreach Committee Meeting

### January 25th, 2025

[Join the TOC](#)

## Tides and Talks

### January 16th, 2025 3:00pm CST

January Topic: Recreational Fishing

[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

SASJ BAYS  
VOLUNTEER NETWORK

# JOIN THE VOLUNTEER NETWORK!

Interested in getting involved in protection and restoration efforts within the St. Andrew Bay Watershed?

**Join Our Email List!**

SASJ Bays Volunteer Network connects organizations across the watershed with citizens looking for an opportunity to get involved.

- **Organizations:** Connect with volunteers for your events
- **Volunteers:** Learn about volunteer opportunities from our partners all across the watershed

**JOIN NOW**  <HTTPS://LISTS.FSU.EDU/MAILMAN/LISTINFO/VOLUNTEER-SASJBEP>

St. Andrew and St. Joseph Bays Estuary Program

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

Choctawhatchee Basin Alliance

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

City of Panama City

- [Environmental Compliance Inspector](#)

Florida Fish and Wildlife Conservation Commission

- [OPS Fisheries & Wildlife Biological Scientist III](#)

FSU Coastal Marine Lab

- [Multiple Positions](#)

## *Follow us on Facebook!*



**St. Andrew and St. Joseph Bays Estuary Program** 

2025-01-08



Meet the Pine Snake—a fascinating and elusive resident of our watershed's upland habitats! This state-designated Threatened species is non-venomous and can grow up to an impressive 7 feet long. With dark blotches in shades of brown or reddish-brown and a white belly, they are masters of camouflage. Pine Snakes are fossorial, spending much of their time underground in pocket gopher burrows, using their cone-shaped head perfectly adapted for burrowing. When threatened, they put on an impressive defensive display by inflating their bodies, hissing loudly, and vibrating their tails against leaf litter—sometimes even striking! As predators of pocket gophers, they play a crucial role in maintaining the balance of our ecosystem.

Photo: Billy Moore, FWC



 [Like](#)    [Comment](#)    [Share](#)

**Contact us at** [estuaryprogram@pc.fsu.edu](mailto:estuaryprogram@pc.fsu.edu)

St. Andrew and St. Joseph Bays Estuary Program

4750 Collegiate Drive

[estuaryprogram@pc.fsu.edu](mailto:estuaryprogram@pc.fsu.edu)

Panama City, FL 32405

[pc.fsu.edu/sasjbep](http://pc.fsu.edu/sasjbep)

You received this email because you signed up online  
or at a recent outreach event. No longer wish to  
receive these emails?



[Unsubscribe](#)

[Donate](#)