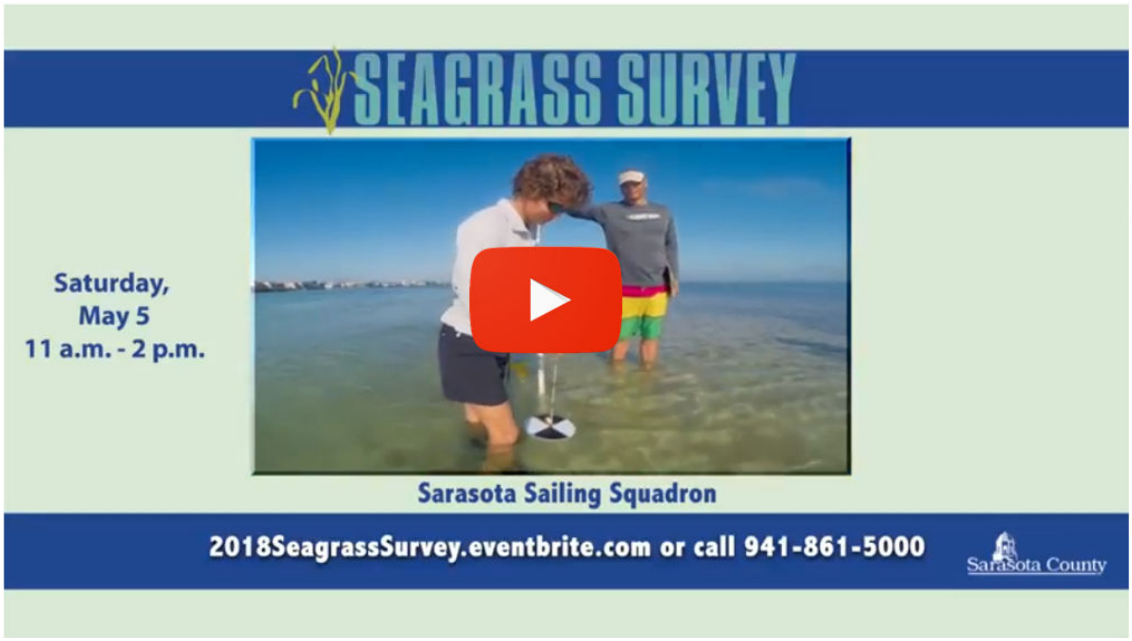


BAY REFLECTIONS

News from the Sarasota Bay Estuary Program

Spring 2018

4th Annual Sarasota Bay Seagrass Survey and Festival to Celebrate Bay Recovery



Over 70% of the Florida fish you eat or catch, like snook, snapper, stone crab, and grouper, rely on seagrasses to survive.

Seagrass Survey and Festival 2018

Saturday, May 5th
Sarasota Sailing Squadron
1717 Ken Thompson Pkwy, Sarasota
Volunteer Survey 7:30am – 12:00pm
Seagrass Festival 11:00am – 2:00pm

Mark your calendars for fun on Saturday, May 5th! Sarasota County and SBEP will host a day of citizen science, nature-themed activities, food, music, raffle prizes, and games to celebrate the incredible recovery of Sarasota Bay seagrass meadows and all the benefits they bring to the community. Seagrass meadows cover 54% more area in Sarasota Bay today than they did in 1988. It's time to celebrate our region's success with improving water quality while keeping sights set on our responsibility to keep water clean for future generations.

This event is free and open to all! Survey volunteer spots are full, but check out the fun activities for families to enjoy from 11AM to 2PM:

- Discover Bay critters in a touch tank hosted by Florida Fish and Wildlife Conservation Commission
- Build an oyster mat to help with habitat restoration in Manatee County Preserves
- Wade into seagrass beds around Ken Thompson Park with Around the Bend Nature Tours. Come discover what crawls and swims in Sarasota Bay grass beds.
- Learn with hands-on water activities with Mote Marine Laboratory and Aquarium, Florida Department of Environmental Protection, Longboat Key Turtle Watch, Mangrove School of Sarasota, and the Science and Environment Council
- Ponder mangrove forests on guided walks around Ken Thompson Park with Florida Sea Grant
- Paint your own reef ball to take home courtesy of Reef Innovations

Pick up a raffle card, get stickers for completing four different activities, and enter to win cool raffle prizes: a Le Barge cruise, Clyde Butcher photography, snorkel gear, kayaking trips, handmade jewelry, and more.

Event Details on Facebook >

Creating Habitat for Juvenile Gag Grouper With Sarasota Bay Artificial Reef Enhancements

Article by Dr. Jay Leverone, Staff Scientist with the Sarasota Bay Estuary Program



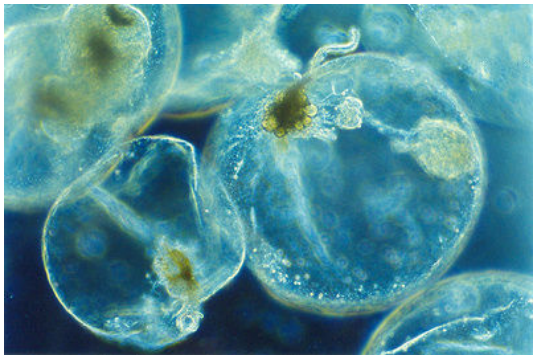
Sarasota and Manatee Counties have excellent artificial reef programs that offer boaters, anglers and divers a bounty of recreational opportunities. While many sportsmen take to the numerous offshore Gulf reefs to pursue these activities, a lesser known array of artificial reefs inside Sarasota Bay, in addition to providing these same opportunities, is quietly pursuing another, more ecologically focused goal of providing essential habitat for juvenile gag grouper, an important local fishery.

This new focus, led by the Sarasota Bay Estuary Program, is based on the fact that gag grouper (*Mycteroperca microlepis*) utilize bay habitats such as seagrasses and hard bottoms during the first two years of their life, until they are large enough to move offshore and join the adult fishery. By creating reef material that can satisfy this habitat requirement, our efforts should enhance the survival rate of younger fish, and ultimately enhance the overall adult population.

Read more about gag grouper on Bay artificial reefs >

Sea Sparkles in Sarasota Bay Spark Student Curiosity at New College of Florida

Article by Emily Anne King, a current student at New College of Florida studying Environmental Science. Emily Anne is completing an internship with SBEP this semester for the course "Writing for Nonprofits."





Noctiluca scintillans or "Sea sparkles." Left: Wikimedia Commons, right © Hans Hillewaert, CC BY-SA 4.0, https://commons.wikimedia.org/w/index.php?curid=10711494

A classmate approaches me, dripping and breathless, “Have you seen the bioluminescence at the Bay yet?”

It’s that time of year again. My classmate is referring to the seasonal bloom of bioluminescent microorganisms that turn the campus Bayfront into an interactive light show.

If the water is still, one might not notice anything different about the Bay. Movement triggers a blue-green glow, the product of light reactions within countless dinoflagellates Dipping a finger or toe in the water causes a twinkling, blue glow around your skin. Fish and other organisms moving in the water are outlined in this same magical glow. Splashing sends sparkling water droplets airborne. The occasional passage of a boat sends out a glowing wake. In marine areas that are more turbulent than Sarasota Bay, the tumultuous waves might form lines of blue-green light along the wave caps.

The beauty of this transient phenomenon inspired a group project on bioluminescence in my oceanography class. I learned that the organism creating this glow is named *Noctiluca scintillans*, a one-celled algae of a relatively large size for a plankton. Each plankton has a tentacle and a flagellum. *Noctiluca* are the largest unicellular protists, or dinoflagellates. Within each plankton are thousands of scintillans, the organelles that gives the organism its characteristic glow and happens to be the species name.

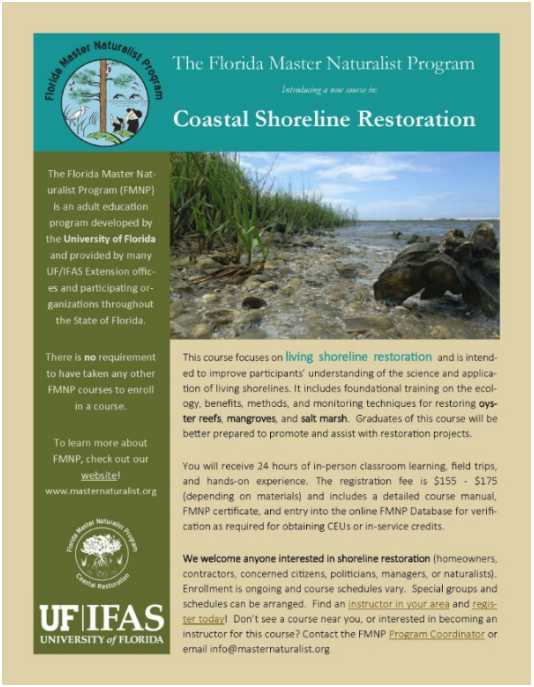
Sometimes the cells collide with one another, creating pinpricks of light and reminding one of their common name: sea sparkles.

Read more about sea sparkles >

Ways to Get Involved

Manatee County Master Naturalists Membership Drive

The Manatee County Chapter of the Florida Master Naturalists is seeking new members for their newly-formed chapter. The first membership meeting is May 10 from 6:30PM-8:00PM at the Manatee County Extension office located at 1303 17th Street West in Palmetto. Membership is open to anyone with an interest in Florida's natural ecosystems who would like to learn more about Florida's flora and fauna and become involved in community environmental activities. For more information, contact Lisa Hickey: lisa.hickey@ufl.edu or 941-722-4524, ext. 1817.



New Florida Master Naturalist Course for Sarasota and Charlotte Counties: Coastal Shoreline Restoration

Class Dates May 21-24, 2018

Students will experience 24 hours of in-person classroom learning, field trips, and hands-on activities related to shoreline restoration. Click the flyer to learn more and register.

Book a Speaker from SBEP

SBEP staff members regularly speak to homeowner, neighborhood, and community groups and upper-level classrooms about Sarasota Bay ecology and restoration. Weekday

and evening presentations are now being scheduled through fall 2018.



Visit the SBEP website to schedule a speaker >



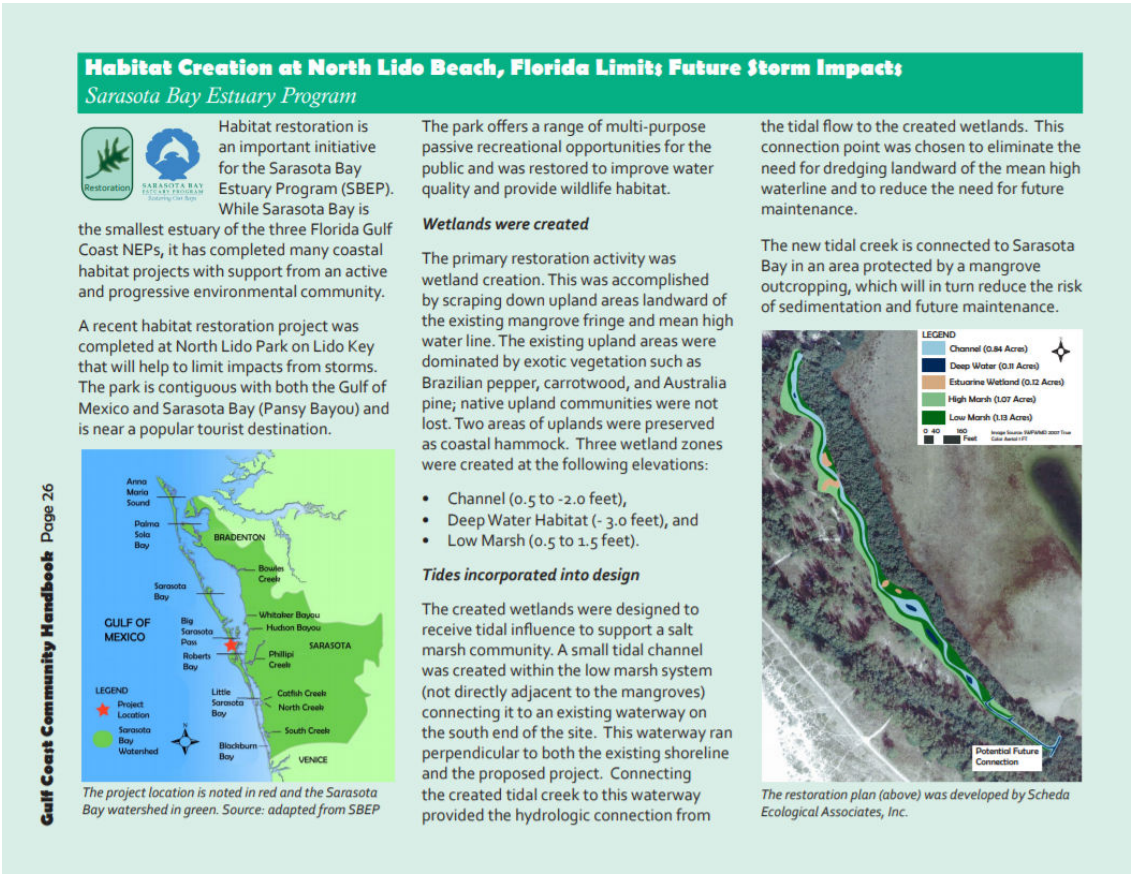
Paid Internship with Manatee County Parks & Preserves Spanish Translation Program

A paid summer internship (8-10 weeks) to work on a project resulting in the development of a bilingual outreach program to assist local immigrants and international visitors in the use of free Manatee County parks, preserves and resources. Each year, hundreds of non-English speaking visitors explore Manatee County's Parks and Preserves, however, no signage or materials exist to service this growing audience. This position will work with an active

Volunteer and Education Division that has a 6 member team that provides a variety of hands-on interpretive environmental education programs as well as volunteer offerings throughout the County's parks and preserves. This staff is also responsible for creating marketing material, interpretive signage, and brochures to describe each site. This work will result in a better understanding of the preserves' history and natural resources for those non-English speaking visitors. An inquisitive, self-motivated, and multi-lingual candidate will make a positive impact on the lives of underserved Manatee County residents. Ideal competencies for this project include, but are not limited to: advanced bilingual ability in Spanish and/or Spanish dialects, ability to translate previously created signage, and proofreading skills; design and marketing skills. Individuals who are bilingual in English and Spanish or another language or who have experience with immigrant communities are preferred.

Application and more information >

Restoration Feature: North Lido Beach Park



Habitat Creation at North Lido Beach, Florida Limits Future Storm Impacts

Sarasota Bay Estuary Program

Habitat restoration is an important initiative for the Sarasota Bay Estuary Program (SBEP). While Sarasota Bay is the smallest estuary of the three Florida Gulf Coast NEPs, it has completed many coastal habitat projects with support from an active and progressive environmental community.

A recent habitat restoration project was completed at North Lido Park on Lido Key that will help to limit impacts from storms. The park is contiguous with both the Gulf of Mexico and Sarasota Bay (Pansy Bayou) and is near a popular tourist destination.

The project location is noted in red and the Sarasota Bay watershed in green. Source: adapted from SBEP

The park offers a range of multi-purpose passive recreational opportunities for the public and was restored to improve water quality and provide wildlife habitat.

Wetlands were created

The primary restoration activity was wetland creation. This was accomplished by scraping down upland areas landward of the existing mangrove fringe and mean high water line. The existing upland areas were dominated by exotic vegetation such as Brazilian pepper, carrotwood, and Australia pine; native upland communities were not lost. Two areas of uplands were preserved as coastal hammock. Three wetland zones were created at the following elevations:

- Channel (0.5 to -2.0 feet),
- Deep Water Habitat (- 3.0 feet), and
- Low Marsh (0.5 to 1.5 feet).

Tides incorporated into design

The created wetlands were designed to receive tidal influence to support a salt marsh community. A small tidal channel was created within the low marsh system (not directly adjacent to the mangroves) connecting it to an existing waterway on the south end of the site. This waterway ran perpendicular to both the existing shoreline and the proposed project. Connecting the created tidal creek to this waterway provided the hydrologic connection from the tidal flow to the created wetlands. This connection point was chosen to eliminate the need for dredging landward of the mean high waterline and to reduce the need for future maintenance.

The new tidal creek is connected to Sarasota Bay in an area protected by a mangrove outcropping, which will in turn reduce the risk of sedimentation and future maintenance.

The restoration plan (above) was developed by Scheda Ecological Associates, Inc.

Have you visited the restoration area at North Lido Beach Park? Walk northeast

from the beach and you'll find an urban oasis nestled between Pansy Bayou and the Gulf of Mexico. Completed in the early 2010s, the project is now maturing and mangroves have recruited to the tidal creek. It's a destination for birders who come to watch kingfishers and osprey hover over the creek to hunt the juvenile fish that seek shelter there. Click the image above to read more about the project.

Water Reading from Around the Web

Vegetarian sharks? Bonnetheads thrive on a seagrass-rich diet

Sharks are nature's most famous carnivores. So University of California - Irvine researchers turned heads when they released a study earlier this year demonstrating that bonnethead sharks, which are abundant in Sarasota Bay, can digest seagrass.

Read more on Science News >

Bay Reflections is the quarterly e-newsletter from the Sarasota Bay Estuary Program.

The Sarasota Bay Estuary Program is dedicated to restoring the area's greatest natural asset - Sarasota Bay. We offer special thanks to our partners: Sarasota County, Manatee County, City of Sarasota, City of Bradenton, Town of Longboat Key, the U.S. Environmental Protection Agency, the Florida Department of Environmental Protection and the Southwest Florida Water Management District.

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