



2017 Volunteer Seagrass Survey Results

We're famous-check it out!

- ❖ Link to [Longboat Observer](#) article (May 1, 2017)
- ❖ Link to [Herald Tribune](#) article Sarasota (April 30, 2017)
- ❖ Link to [ABC7 WWSB](#) (start at the five-minute mark)
- ❖ Link to [Access Sarasota TV](#)
- ❖ Participants can post and share photos on the SBEP Flickr account: <https://www.flickr.com/photos/sarasotabay/>. Please feel free to use and share these photos.

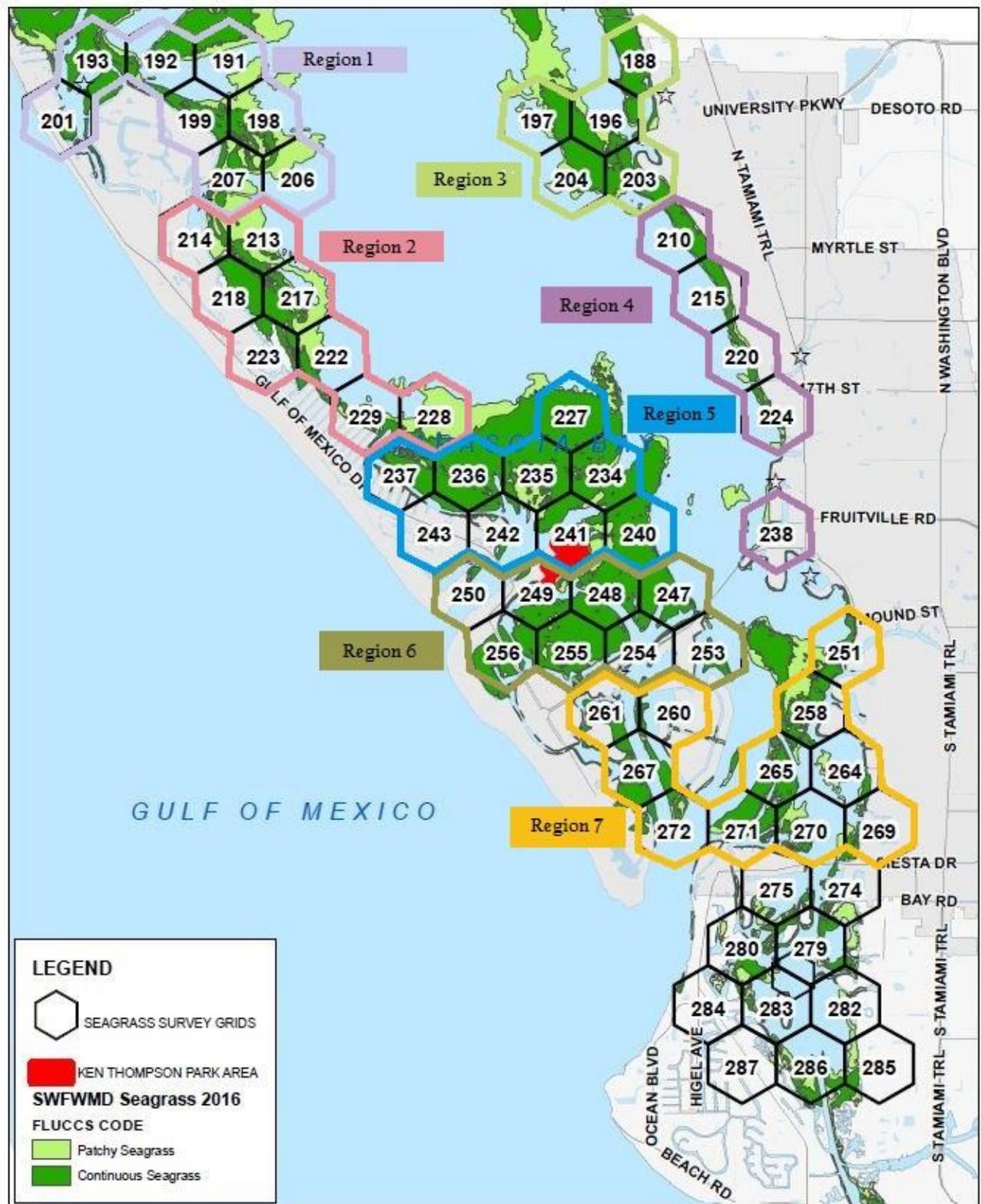
At first light April 29, 2017 an intrepid group of **90 citizen-scientists, 14 boats, 7 kayaks, and 2 paddleboards** converged upon the Sarasota Sailing Squadron on Longboat Key and prepared to conduct the third annual Sarasota County Seagrass Survey. In groups of 3 and 4 they navigated Sarasota Bay to gather data (and hopefully some memories) along the way. During the 3 hour event, Seagrass Survey volunteers visited and collect data for over **115 survey points**. That is approximately **20.7 acres of seagrass**. Sarasota Bay was divided into **7 regions** as different conditions (i.e. tidal influences, depth, and freshwater inflow) will create varying seagrass meadow habitats in each region.

Volunteers were given a one-hour training session before hitting the waves. This session is an introduction to the scientific method used to appraise the health of seagrass in our estuary. This year, participants were some of the first to field test a new GIS (geographic information system) **mapping application called Survey 123** to collect data. They are at the very forefront of the new and exciting citizen-science movement! The application allowed users to exactly pinpoint their survey location and guided them through process so no survey questions were left unanswered. This gave us even more accurate and helpful data to use. Some users were even able to attach pictures that could be viewed in real-time back on land.

Seagrass is an important piece of the bay system: it is a useful tool used to measure the water conditions in the bay. Poor water quality can be caused by excess pollution and nitrogen and other nutrient runoff from land (fertilizers, leaking septic systems, pet waste, and erosion) into our stormwater.

Seagrass beds are valuable (Sarasota Bay resources = \$11.8 billion according to a [SBEP Economic Value Study](#)) they also provide habitat for juvenile fish, food for manatees and turtles, oxygenate the water, and stabilize the sediment.

88 points of usable data were collected (i.e. data could be reference back to accurate GPS coordinates, and included necessary information about seagrass presence/absence, seagrass coverage, and seagrass species composition.) This means that more than 75% of all data collected was included in the analyzed results. Great job, volunteers and volunteer trainers!





Seagrass Coverage:

The average survey site had seagrass covering around 76% of bottom in the 100 ft. circle area. The lowest percent of grass noted at any one site was 25% and the highest recorded was 100%. This means that overall volunteers recorded that there was more seagrass than bare sand or mud bottom. The large areas of dense seagrass make great habitat for fish and invertebrates, these were documented extensively during the survey. **Participants found: urchins, sponges, seahorses, baitfish, horse conch, manatees, whelks, clams, oysters, comb jellies, tunicates (sea squirts,) scallops, and a variety of seabirds.**



Variegated urchin:
Photo courtesy of SCG



Lined seahorse:
Photo courtesy of SCG



Florida horse conch
Photo courtesy of SCG

Seagrass Species Composition:

The most common species of seagrass in Sarasota Bay include: *Thalassia testudinum* (turtle grass), *Syringodium filiforme* (manatee grass), and *Halodule wrightii* (shoal grass). All three species were found during the survey. The most frequently observed seagrass species was *Thalassia testudinum* at 54.86%, followed by *Syringodium filiforme* at 24.60% and, and *Halodule wrightii* at 18.75%. Another point of note: a fourth species of seagrass was spotted and recorded this year: *Halophila decipiens* (Paddle grass) was recorded at two survey points.



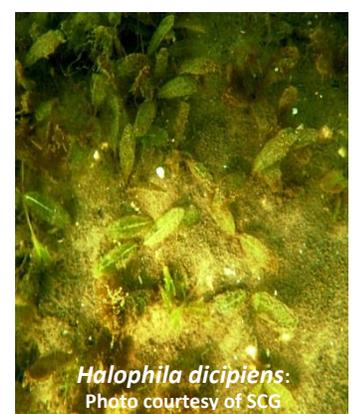
Syringodium filiforme:
Photo courtesy of SCG



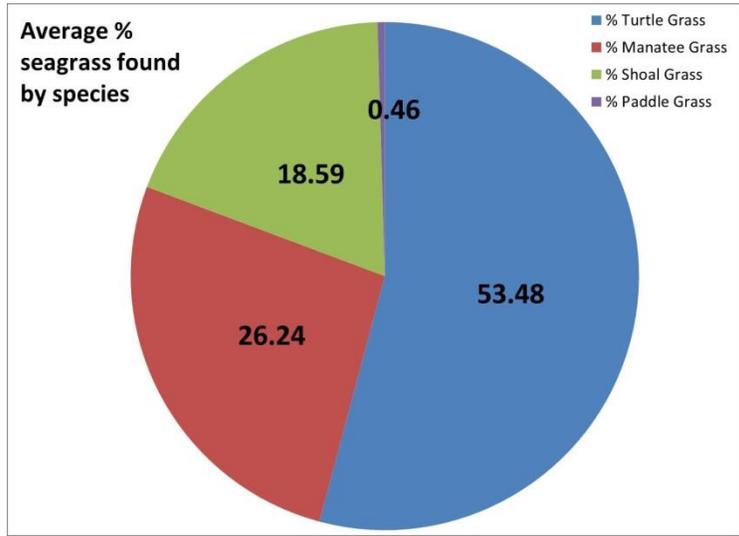
Thalassia testudinum:
Photo courtesy of SCG



Halodule wrightii:
Photo courtesy of SCG

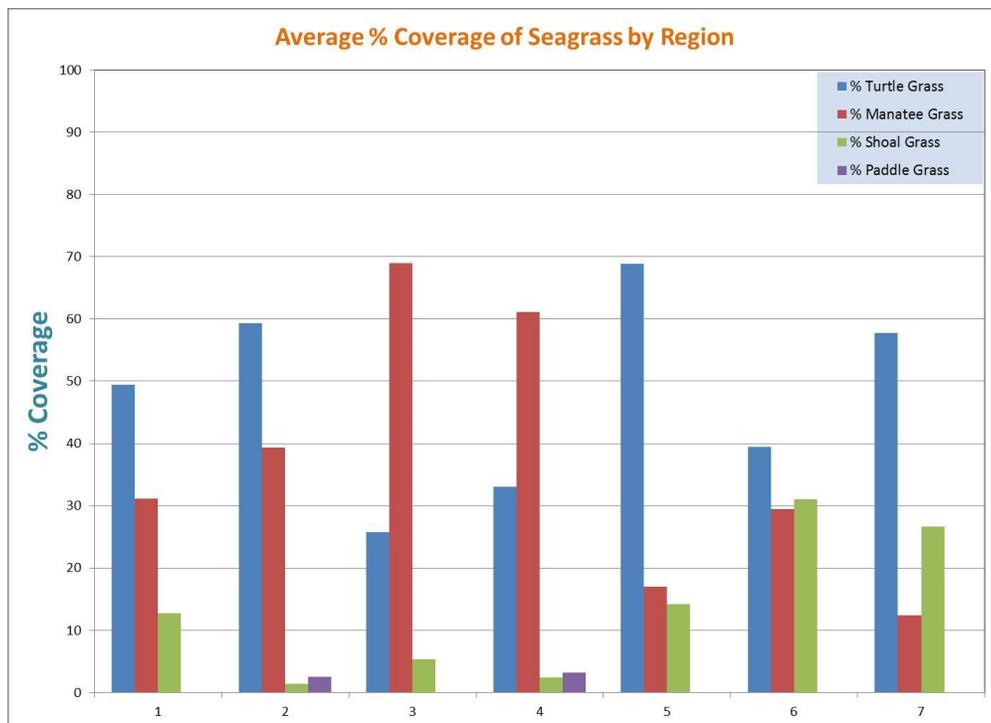


Halophila decipiens:
Photo courtesy of SCG



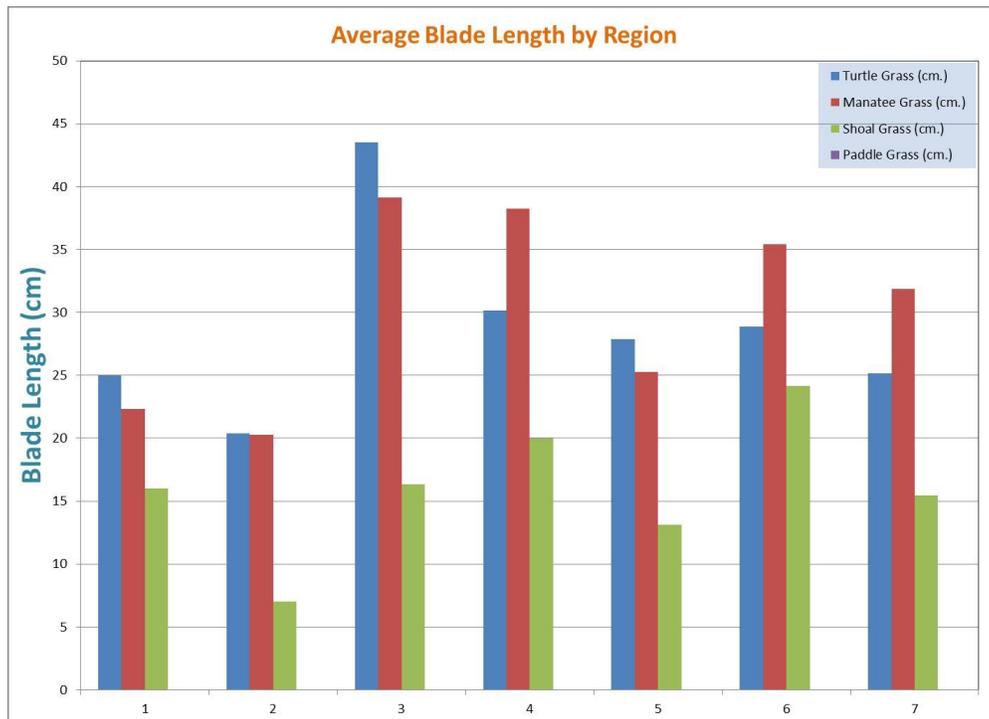
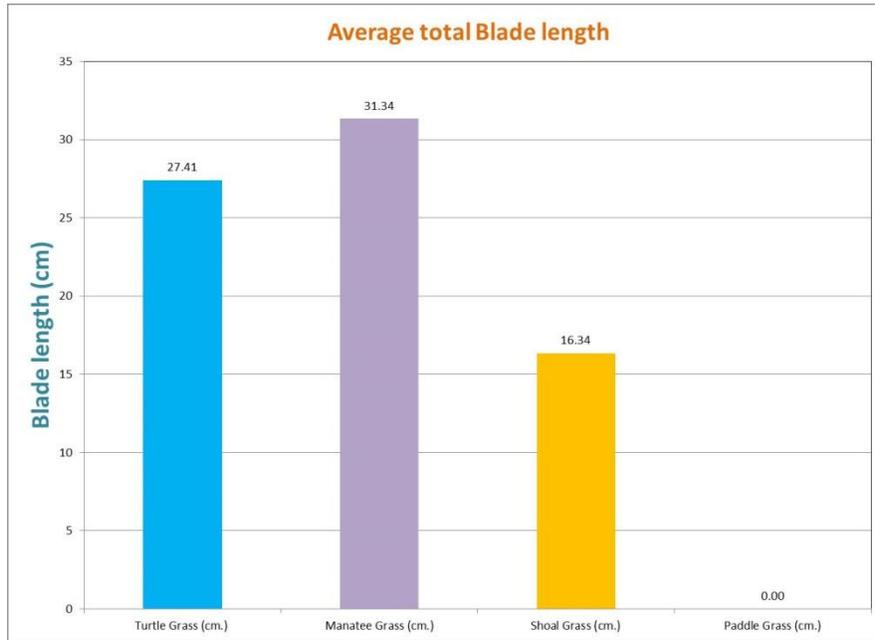
Seagrass Species Composition by Region:

Thalassia testudinum (turtle grass) is typically the most dominant seagrass species within seagrass beds in this area and has the deepest roots. In our results the turtle grass beds found were lush and continuous, making good habitat. *Syringodium filiforme* (manatee grass) is typically found in deeper water mixed in with the supportive turtle grass beds. *Halodule wrightii* (shoal grass) tends to grow more shallow and has a higher tolerance for salinity changes this can make growth intermittent or patchy, our findings confirmed this.





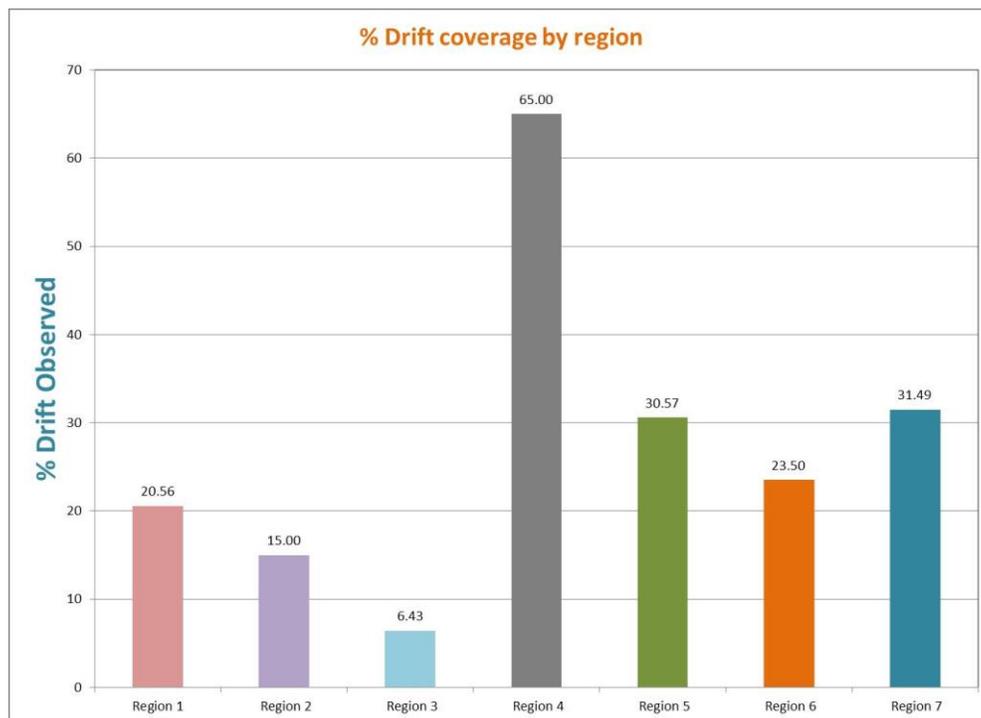
A measurement is taken of a representative seagrass blade at every site. This helps determine the health and growth of seagrass meadows overall and in each region.





Drift Algae Coverage:

Recording algae presence is important because large quantities of drift algae colonies associated with increased nitrogen and other nutrients in the water (possibly introduced by pollutants in stormwater) can prevent sunlight from reaching seagrass beds, eventually causing seagrass bed die-back or preventing growth altogether. The majority of sites had less than 30% drift algae on average. Region 4 had noticeably higher levels of drift algae (~70%) where there is some freshwater inflow from Whitaker Bayou. On the upside, it appears that this level of algae has not yet cause significant harm to seagrass beds in the area.



How does this compare to previous survey data?

Overall seagrasses on Sarasota Bay have been on the rise since 1990! This has been due to changes in management that have increased water quality and encouraged growth. Data analyzed indicates that the seagrass beds surveyed during the 2017 Seagrass Survey are productive and healthy (seagrass meadows cover large areas of the bottom of the bay; the grass itself is tall and lush; grass beds host a wide variety of marine life.)

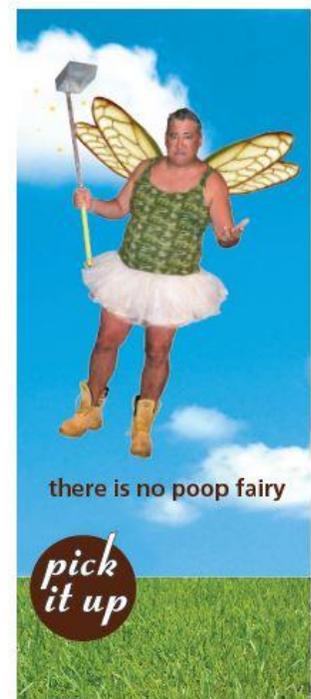
Although seagrass acreage has increased in Sarasota Bay, it is important to appreciate that it is a fragile system that requires vigilant monitoring and restoration efforts. Thank you to all partners and volunteers who participated in the **2017 Seagrass Survey** as well as those who participated in previous years. **This would not have been possible without you. You are truly the stewards of Sarasota Bay.**

Looking forward:

What are some things we can do to help seagrass beds continue to flourish?

Support continued management efforts to lessen the impact of stormwater runoff into Sarasota Bay:

- ❖ **Keep the Bay Blue, Not Green.** ([Be Floridian](#)) Skip the fertilizer this summer. Heavy rains wash fertilizers and pollutants from our yards into our creeks and bays. Stormwater runoff carries the nitrogen and phosphorus from fertilizers into our waterways causing harmful algal blooms and killing aquatic life. ([Runoff Isn't Cute](#))
- ❖ **There is no poop Fairy. Pick up pet waste.** Anything that goes into a storm drain or the road eventually ends up in our waters. Most runoff water is a carrier of oils, solid and pet waste. ([Scoop the Poop](#))
- ❖ **Seawalls and docks can cause erosion** and block sunlight. Try a native plant shoreline or a grated dock that doesn't block light. ([NEST](#))
- ❖ **Boating on the bay**-don't drive in too shallow water or use pole and troll techniques where seagrass tends to grow. It can take seagrass meadows years to recover from scarring caused by boat propellers. [FWC](#)
- ❖ **Get out and enjoy the waters of Sarasota Bay!** The more time you spend in the seagrass meadows, the more you will truly appreciate the wonder and value they add that can't be measured. ([More time for fun](#))
- ❖ **Support** our fantastic partners in conservation: [Sarasota Bay Estuary Program](#), [Mote](#), [Around the Bend Nature Tours](#), [Science and Environment Council](#), [Marie Selby Botanical Gardens](#), [Longboat Key Turtle Watch](#), [FDEP](#), [Sarasota Bay Watch](#), [Florida Maritime Museum](#), [Florida House Institute](#), [Sarasota Sailing Squadron](#), [Save Our Seabirds](#), [Reef Innovations](#), [Reef Ball Foundations](#), [Suncoast Waterkeeper](#), [SUP Sarasota](#), [SWFWMD](#), and [Sarasota Water Atlas](#).
- ❖ **Check it out:** Join the Phillippi Creek Revival [Are You In?](#) [Sarasota County](#) has many programs to improve where you live. Results from previous Seagrass Survey efforts are on the [Sarasota Water Atlas-Seagrass page](#). Get on the list if you would like to join us again next year. Send an email to: niadevaia@scgov.net



POO-LUTION
threatens our health and waters

Sarasota County
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