

Educating with Extension



An Equal Opportunity Institution

SOLUTIONS

By Brynn Morey, Extension Coordinator, and in collaboration with Alicia Betancourt, Shelly Krueger, and Michelle Leonard-Mularz

University of Florida, Institute of Food and Agricultural Sciences (IFAS), Monroe County

May 2022

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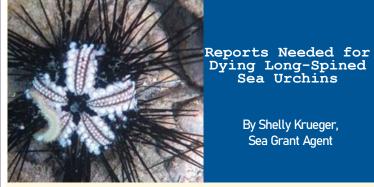
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Key West Botanical Garden Native Plant Sale 9AM-12PM 5210 College Rd. Key West

May 30th

Memorial Day! County offices closed to observe holiday.



The long-spined sea urchin Diadema antillarum is a keystone species on Florida's Coral Reef. Long-spined sea urchins are the lawn mowers that clean and scrape algae off the reef. This in turn helps baby corals settle, grow, and prevents adult corals from being overgrown and killed by algae. I have been told by long-time residents of the Florida Keys that these urchins were once so numerous that you had to use caution to avoid stepping on them and encountering a painful interaction with their spines. Unfortunately, starting in 1983, a disease of unknown origin decimated populations of long-spined sea urchins in the Caribbean, Bermuda, Bahamas, and South Florida. Since that time, long-spined sea urchin population have declined by more than 97%. The importance of this species and their very low population numbers is why the possibility of a new disease outbreak is very concerning.

Since February 2022, there have been reports of rapid, extensive die-offs of long-spined sea urchins in several Caribbean locations including the US Virgin Islands, Jamaica, Mexico, and Dominica. Unfortunately, Florida has received its first concerning report in Biscayne National Park. Observations indicate that sick urchins first detach from the substrate (for example, the rocks that they often live on) through loss of control of their tube feet, followed by shedding of their spines and tissue loss. Right now, we are asking people to report when and where you see long-spined sea urchins with, and without, signs of disease. Photos are also very useful. Scientists will then survey these sites and collect samples of the urchins, seawater, and sediments.

Plant Clinics

Every Saturday

- Plant Clinic 9 a.m. to 12 p.m.
- Grimal Grove

258 Cunninghan Lane Big Pine Key

Monday, May 2nd Plant Clinic

11 a.m. to 2 p.m.

Key West Garden Club 1100 Atlantic Blvd. Key West

Wednesday, May 4th Plant Clinic

9 a.m. to 12 p.m.

Murray Nelson Govt. Center 102050 O/S Hwy. #244 Key Largo

Wednesday, May 18th **Plant Clinic** 9 a.m. to Noon Garden Club of Upper Keys 94040 O/S Hwy. Tavernier

> Saturday, May 21st Plant Clinic

9 a.m. to Noon KW Botanical Garden Nursery

> 5210 College Rd. Stock Island

Saturday, May 21st **Plant Clinic** 9 a.m. to Noon Marathon Home Depot 4555 O/S Hwy, Marathon

Thursday, May 26th Plant Clinic

10 a.m. to 1 p.m. Island Home Nursery 88720 O/S Hwy, Islamorada

Sea Grant News

Shelly recently accomplished the following activities:

• Shelly has been teaching and planning a series of workshops for stony coral tissue loss disease communication professionals. This ongoing series has featured invited speakers Chris Corpus, the director of conservation at the Dallas Zoo, and Dee Weber with the National Mississippi River Museum and Aquarium. Our collective goals are to produce communication products that reach a national audience and foster support for Florida's Coral Reef.

Unfortunately, there is a documented long-spined sea urchin Diadema antillarum die-off that started in the US Virgin Islands and has now spread to Mexico, Jamaica, Dominica, and the Dutch East Indies. As the co-lead of the Florida Coral Disease Response communication team, we have been sharing information on these urchins since we already have a disease platform in place and work with all of the partners on the other stony coral tissue loss disease teams. Shelly wrote a blog for more information:

https://blogs.ifas.ufl.edu/monroeco/2022/0 4/20/reports-needed-for-dying-longspined-sea-urchins/

Shelly Krueger UF/IFAS Florida Sea Grant Agent

• Shelly assisted a master's student at the University of Miami find an internship with the FWC in Marathon working with sponges!



• Since the season is getting started for boating, Shelly wrote a blog about boater safety and encourages boaters to doublecheck they have their required safety equipment on board.

> https://blogs.ifas.ufl.edu/monroec o/2022/04/19/take-a-boatersafety-course-today/

The Environmental Horticulture Program and Master Gardener Volunteers remain dedicated to helping you with your plant related questions.

CALL OUR OFFICE: (305)292-4501

We have many different ways we can assist!

EMAIL YOUR QUESTIONS TO: mastergardener@monroecounty-fl.gov

Please include a detailed description of the problem and photos if available

VISIT OUR OFFICE:

Email Monroe@ifas.ufl.edu or Call (305)292-4501 to schedule an appointment

FACEBOOK PAGE: Visit our Facebook page for updates, requests, information and so much more! https://www.facebook.com/MonroeCountyExtension



Horticulture News

Michelle recently accomplished the following activities:

220

• The 2022 Master Gardener class concluded with 20 graduates that completed the 10-week course. The Master Gardener Interns will continue their learning through hands-on volunteer opportunities donating 75 hours each their first year of service.





• Michelle co-hosted a Plant It Proper Lunch-and-Learn with the City of Key West and Keys Energy Services prior to Keys Energy Services tree giveaway to help with proper planting techniques and improve survivability of native plants in the landscape.

Michelle Leonard-Mularz UF/IFAS Environmental Horticulture Agent

> The Environmental Horticulture Program and Grimal Grove have partnered up to offer weekly plant clinics at Grimal Grove. This partnership allows the community access to Grimal Grove to learn about tropical fruit production and maintenance, vegetable gardening in the Keys, and how to grow your own food. Master Gardener Volunteers are maintaining raised bed demonstration gardens to highlight heat-tolerant vegetables that can be grow in our climate.



Be sure to "Like" us on Facebook and follow us on Twitter and Instagram!

Extension Director's News

Alicia recently accomplished the following activities:

- Alicia worked as a technical expert with the Southeast Florida Climate Compact on updating the Public Engagement and Outreach section of the Regional Climate Action Plan (RCAP). The updated RCAP will be completed in June.
- Alicia co-taught a CIVIC training for 19 participants to learn about relationship building and partnerships.
- The Handbook for Municipal Action on Climate Change won an award for long publication from the Florida Association of Natural Resource Extension Professionals.



- Alicia co-taught the Climate Smart Floridians, Train-the-Trainer Program for 12 sustainability directors. This program teaches participants about the program and provides them with the knowledge, skills, and resources to offer the program in their community
- Alicia worked with agents from UF, Auburn, and Purdue to develop a leadership curriculum for non-profit organizations that will be piloted later this year.

Alicia Betancourt

UF/IFAS Family and Community Development Agent and Monroe County Extension Director

> • Alicia participated in the Sea Grant Climate Work Action Group to develop goals, objectives, and directions for program development for the rest of the year. In the workshop, we worked on the rollout of the Handbook of Municipal Action on Climate Change.



Alicia chaired the Public Issues
Leadership Development Conference
for 173 Extension agents and
administrators in Washington D.C.
The three-day conference explores the
connection across the national
Extension system and culminates in
visits to legislators on Capitol Hill.

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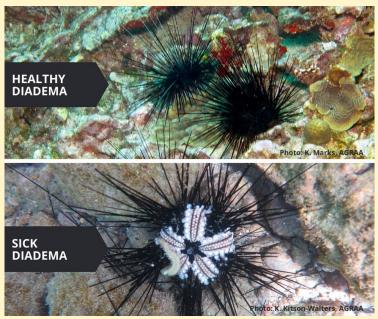


How to identify the long-spined sea urchin

There are at least seven species of sea urchins in South Florida. The long-spined sea urchin is easily identified because the spines are very long relative to their central body, also called the test, compared to the other species. As you can see in the photo on the top right, the largest species in the center is the long-spined sea urchin, and the spines are considerably longer than the other two species pictured: the rock-boring urchin on the left and the two reef urchins on the right. These spines are not venomous but they are good advertising to would-be predators to stay away and "do not touch me." They are typically a very dark black-purple color, and sometimes white or variegated like the one pictured here. They are nocturnal, but you can usually find them hiding in crevices during the daytime if you are out at the reef. I have seen them in seagrass beds, too.

Where to report long-spined sea urchins

The Florida Department of Environmental Protection (FDEP) has a reporting tool at SEAFAN.net or you can call the hotline 866-770-7335. The FDEP SEAFAN network reporting tool can also be used to report stony coral tissue loss disease, another lethal disease of unknown origin that has been infecting stony corals since 2014. In the Caribbean, the Diadema Response Network needs reports of healthy or dying long-spined sea urchins, submit your reports here. Call Shelly Krueger, Florida Sea Grant agent in the Florida Keys for the University of Florida IFAS Extension, Monroe County at 305-292-4501 to file a report or for more information.



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Instagram

UF/IFAS/MONROE COUNTY EXTENSION

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This newsletter can be accessed online at: http://monroe.ifas.ufl.edu/newsletter.shtml

We're on the Web at: http://monroe.ifas.ufl.edu

Facebook

Twitter

University of Florida (UF)

http://SolutionsForYourLife.ufl.edu

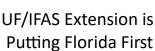
http://ufl.edu

Electronic Data Information Source (EDIS)

http://edis.ifas.ufl.edu







Scan this code to go directly to our UF/IFAS Website for more information!



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UF/IFAS/MCES QUARTERLY CONTACTS

	Feb	Mar	April	Totals
Phone calls	46	41	47	134
Office visitors	60	70	65	195
Email Consultations	73	121	138	332
Learning events	26	39	33	98
Participants	602	877	546	2,025
Media submissions	6	6	4	16
Publications distributed	338	320	285	943
TOTAL contacts	1,151	1,474	1,118	3,743

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