

CARICOOS Boating app: an accessible and easy-to-use tool for boaters.



Recreational boating is a popular and enjoyable marine recreation activity for many people in the CARICOOS region. However, in order to minimize risks, boaters need easy access to sea state conditions that can help them make suitable decisions. Taking into account this need, and given CARICOOS success with PA' LA PLAYA app, a market analysis was conducted to gather data on potential user's preferences on what information, appearance, and design should CARICOOS Boating app have. Certainly, the developers incorporated these preferences into the app design.

Since summer 2020, the CARICOOS Boating app is available for iPhone and Android users in both Spanish and English. The app features current conditions (wind, waves, tides, and meteorological), wind and wave forecasts from CARICOOS, tides, and meteorological forecasts from National Weather Service and weather alerts. It also has an offline mode that allows use in areas with no network coverage. We are currently offering a series of webinars to teach the public how to use it. To download the CARICOOS Boating app, go to:

iPhone: <https://apps.apple.com/us/app/caricoos-boating-app/id1472791298>

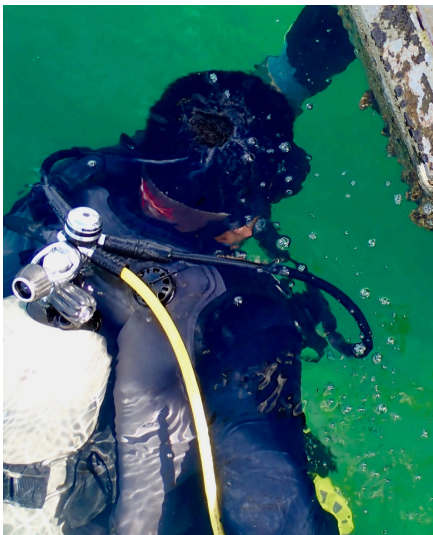
Android: https://play.google.com/store/apps/details?id=org.caricoos.boatingapp&hl=en_US

The Ocean Acidification Buoy received its annual maintenance.

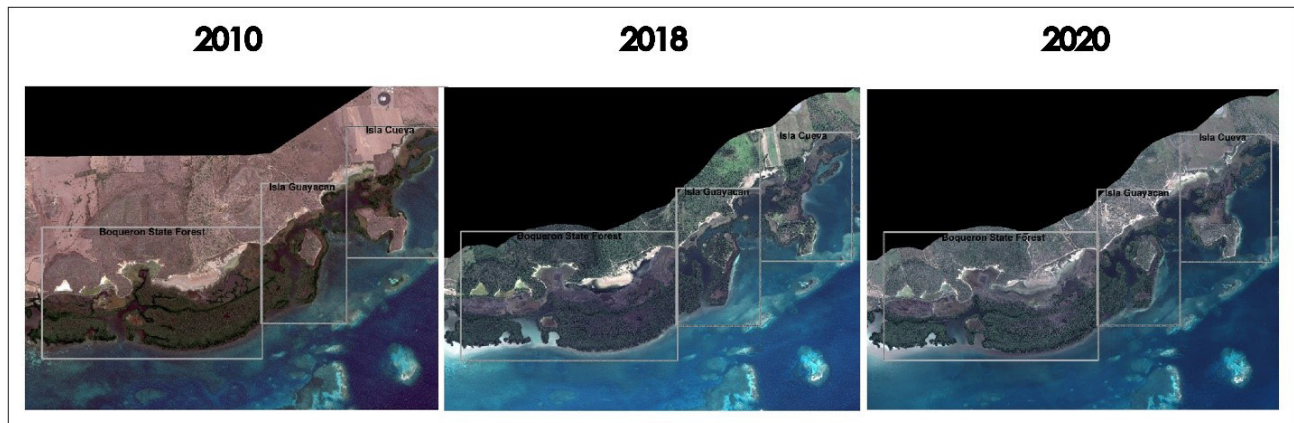


In early September CARICOOS researchers recovered the ocean acidification buoy located at Cayo Enrique, La Parguera Lajas, Puerto Rico, to conduct its scheduled maintenance. This buoy is one of 19 NOAA Ocean Acidification Program supported buoys in coastal waters. Its main purpose is to measure ocean acidification and related parameters in a tropical coral reef environment in order to have a better understanding of how ocean chemistry is changing and how these changes may affect our coastal ecosystems.

The buoy maintenance is carried out every year and takes approximately one week to complete. As part of this process, the buoy gets cleaned, new sensors are installed, calibrations are made and several technical tests are done to check everything works properly before its redeployment. This is a joint collaboration between CARICOOS and the Pacific Marine Environmental Laboratory Program. To access ocean acidification buoy data, go to <https://www.caricoos.org/oceans/acidification/seawater> and <https://www.pmel.noaa.gov/co2/story/La+Parguera>

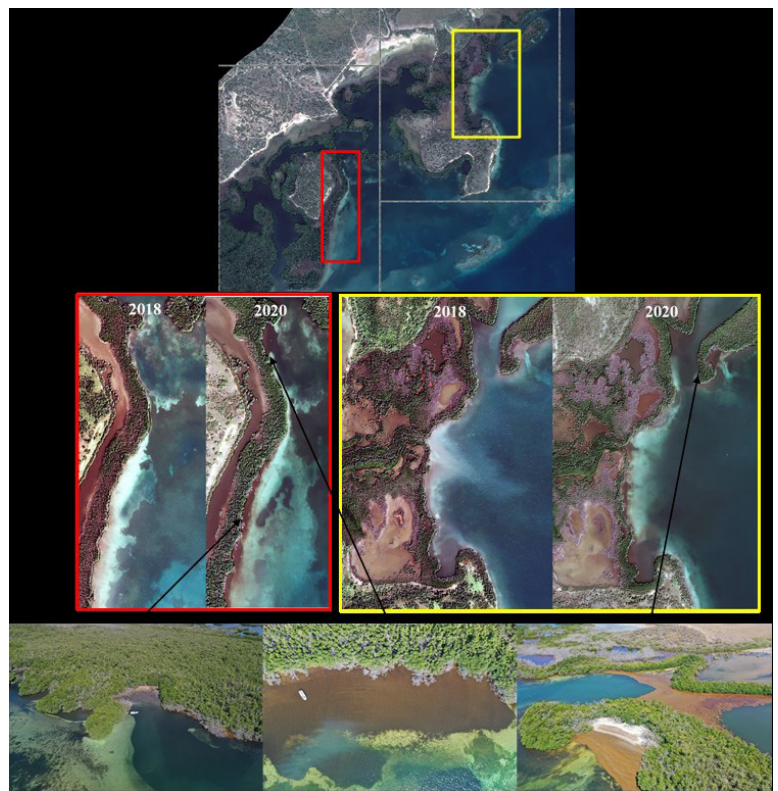


Satellite imagery reveals impacts to coastal vegetation and seagrasses attributable to Hurricane Maria and now frequent massive Sargasso arrivals.



Since 2011, large accumulations of Sargassum on the coasts has become a challenge for managers. Some of the challenges include lack of access to ramps and beaches, deterioration in the quality of tourism services and impacts on coastal ecosystems dynamics. To address this issue, CARICOOS commissioned a study to evaluate changes in benthic composition and coastal vegetation in La Parguera area potentially resulting from Sargassum influx and accumulations in cays, bays, inlets and near-shore environments. For this purpose, high-resolution satellite imagery was acquired from 2010 (before Sargassum inundations) and 2020. An additional image from 2018 was acquired to include the potential impacts of hurricanes Irma and Maria.

Results show a negative trend in vegetation cover loss of 24% (or 546,446 square meters) from 2010 to 2020. In addition, a dramatic negative change in vegetation cover was observed from 2018 to 2020, especially for the Isla Cueva site (97%) and were consistent with the field observations and drone surveys conducted since 2018 in the area. Changes in benthic composition occurred mainly in mud and sandy bottom with submerged aquatic vegetation. This study provides for the first time, an assessment of the effects of Sargassum accumulation and hurricane events on these ecosystems.



Enhanced areas from satellite imagery (top) from Isla Guayacán in red box (middle-left) and Isla Cueva in yellow box (middle-right) for both 2018 and 2020 showing changes in accumulated Sargassum at various locations. Drone images from September 2019 from Isla Guayacán (bottom-left-middle) and Isla Cueva (bottom-right) location on satellite imagery showing the accumulations of Sargassum.

CALL FOR EXPRESSIONS OF INTEREST

The Caribbean Coastal Ocean Observing System (CARICOOS) is seeking expressions of interest (EOIs) for collaborations on the operation, maintenance, enhancement, and outreach of the program. We welcome submissions from academic institutions, profit and non-profit organizations, and federal & state governments. EOIs to operate, maintain, and enhance our existing infrastructure, as well as pilot projects to further develop our observing and modeling subsystems are welcome. Projects that augment the reach of CARICOOS data and products are especially encouraged. All projects must respond to a well-documented user need and culminate on a concrete data product or service. CARICOOS expects to devote approximately 50% of its annual funding to these activities. Pending congressional appropriations, annual funding for the entire program may range between \$2.5-6M/yr for the next five years starting on June 1st, 2021, as expressed in the Notice of Federal Opportunity (NOFO). The deadline to submit your EOI is October 7th, 2020.

More info: https://about.caricoos.org/wp-content/uploads/2020/09/CARICOOS_2020_CALL_FOR_EOIs.pdf



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