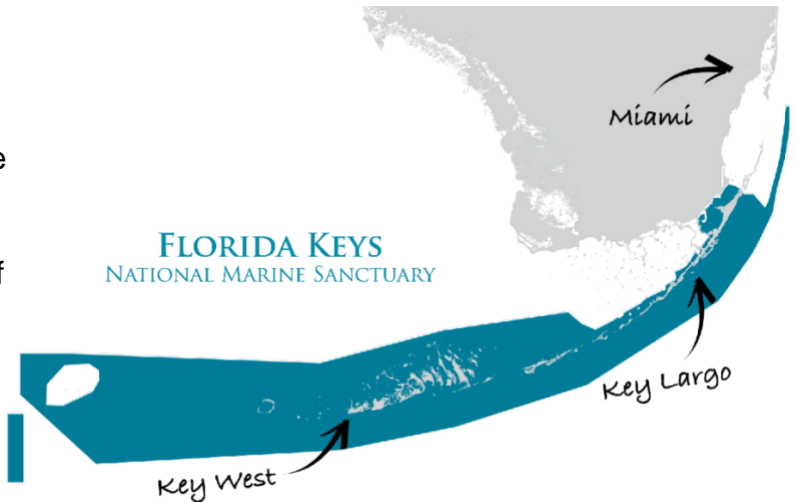


## Florida Keys National Marine Sanctuary Accomplishments

Fiscal Year 2021

Florida Keys National Marine Sanctuary was established in 1990 to protect and preserve spectacular, unique, and nationally significant marine resources. Within the 3,800-square-mile sanctuary is North America's only coral barrier reef, extensive seagrass beds, mangrove fringed islands, and more than 6,000 species of marine life. The sanctuary also protects an estimated 800 underwater historical sites.

Visit [floridakeys.noaa.gov](https://floridakeys.noaa.gov) for more information.



### New Work Platform Maximizes Work of Keys' Buoy Team

After acquiring a new 36-foot Newton research vessel, Florida Keys National Marine Sanctuary buoy team now has a work platform to assist with its assignment of maintaining nearly 800 buoys in the Florida Keys. The R/V *Leatherback*, whose name was selected by a vote of Monroe County school students, introduces several operational advantages including a modest 2-foot draft and pressure washer and hydraulic systems integrated into machinery below deck. The vessel will support the lower Florida Keys portion of the sanctuary buoy system based in Bahia Honda and Key West.

### Coral Restoration Work Continues at Eastern Dry Rocks

The combination of high-resolution imagery with GPS technology is helping managers of Mission: Iconic Reefs track the progress of its 20-year, \$100 million restoration of coral reefs in the Florida Keys. Deployed by the U.S. Geological Survey, the Structure-from-Motion Quantitative Underwater Imaging Device with 5 cameras (SQUID-5), has mapped young coral outplants at two of the seven Mission: Iconic Reefs. Imagery collected by SQUID-5 is used to generate 3-dimensional models of the seafloor to track changes in seafloor structure, elevation, and coral reef growth.



The R/V *Leatherback* undergoes field trials in Key West. Photo: NOAA.



The U.S. Geological Survey's SQUID-5 is towed behind the sanctuary's research vessel. Photo: Warrick/USGS

## Maritime Heritage Zeros in on Long-forgotten Wreck of the *Valbanera*

Intrigued by how little was known about the sanctuary's deadliest shipwreck, sanctuary archaeologists set a course for the "Quicksands" off Key West with a multidisciplinary team to investigate the 1919 demise of the Spanish steamship *Valbanera*. Of the nearly 500 passengers and crew, there were no survivors. During the two-week expedition, researchers utilized cameras mounted on a diver propulsion vehicle to document the large wreck entombed in a sand bank in 20-25 feet of water. Almost 7,000 digital images were captured to produce 3D models of the site.



Archeologists investigate the wreck of the *Valbanera* in waters off Key West. Photo: NOAA

### Looking Ahead

- The sanctuary's Eco-Discovery Center, which has welcomed more than 750,000 visitors since opening in 2010, will unveil two phases of exhibit makeovers totaling more than \$1 million.
- In January 2022, a mobile app will be available for visitors to learn about every managed area within the sanctuary, guiding users with GPS-powered, geo-fencing capabilities.
- A second Newton research vessel will be procured, providing the sanctuary buoy team with new work platforms at both ends of the Florida Keys.



The National Marine Sanctuary System is a network of underwater parks encompassing more than 600,000 square miles of marine and Great Lakes waters. The network includes a system of 15 national marine sanctuaries and Papahānaumokuākea and Rose Atoll marine national monuments.