Update on Mapping Efforts Associated with Lone Cabbage Reef Restoration Project

Mike Allen, Bradley Ennis
University of Florida

Horseshoe Cove and Suwannee Sound Virtual Workshop
March 9 - 11 2021
Degradation of Lone Cabbage Reef: 70% lost from 1982-2010

Current Data for Lone Cabbage Reef Offshore:

- 2017 Pre-Construction Survey
- 2018 As-Built Survey
- 2018 Inlet Survey
Monitoring Efforts: Elevation/Bathymetry

- **Surrounding Reef Change**
  - Average Reef Height
  - Oyster Density/Size Dist. and Elevation Relationship

Credit for 3D-work:
Joe Aufmuth
Monitoring Efforts: Elevation/Bathymetry

Scatterplot: Lone Cabbage Reef Elevation Pre vs Post Construction
Drone Survey Efforts Little Trout Creek:
Lone Cabbage Reef:
LiDAR Coverage
Lone Cabbage Reef – Upcoming Elevation Data

Future Datasets from Project:

• 2021 Elevation Profile Surveys

• 2021 Inlet Surveys

Future Datasets from Partners:

• CZMIL – Airborne Bathymetric and Topographic LiDAR (SRWMD)
Lone Cabbage Reef – Broader Impacts

• Goal of evaluating impacts of land use and climate change on Suwannee River estuary
• LCR Project is part of broader efforts
• Ongoing FWC work on birds and terrapins
• National Academy grant – 2021-2024
  - FWC, SRWMD, DEP, DACS,
  - UF/IFAS:
    ▪ NCBS
    ▪ Food and Resource Economics
    ▪ UF Water Institute
    ▪ PIE Center
  - Land use, hydrology and food web modeling
• Potential to leverage efforts among projects
Thank You!

Bradley Ennis bmegator@ufl.edu

Mike Allen msal@ufl.edu

• Project co-PIs Leslie Sturmer, Peter Frederick, and Bill Pine

For More Information: https://lcroysterproject.github.io/oysterproject/