

SPRINGS COAST RESILIENCY AND BIODIVERSITY MONITORING NETWORK

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ST. MARTINS MARSH AQUATIC PRESERVE

- Established in 1969.
- Approximately 28,000 acres.
- Salt marsh, mangrove islands, seagrass beds and hardbottom habitat.
- Recreational opportunities:
 - Boating, kayaking, canoeing, snorkeling, scalloping, birding and fishing.





BIG BEND SEAGRASSES AQUATIC PRESERVES





NATURE COAST AQUATIC PRESERVE

- Established in 2020.
- First new aquatic preserve in 32 years.
- Approximately 450,000 acres.
- Monthly water sampling conducted throughout by University of Florida.





CURRENT MONITORING PROGRAMS

Yearly seagrass surveys in SMMAP and BBSAP.

- SMMAP surveys go back to 1997.
- Tracks seagrass trends over time.

Continuous water quality monitoring.

• Three datalogger stations between SMMAP and BBSAP.

Monthly nutrient sampling.





HARDBOTTOM HABITAT

- Nearshore, 0-5m deep (intertidal and subtidal).
- Thin layer of sediment over limestone where seagrass can't grow.
- Substrate for sponges, corals, invertebrates and algae.
- Provides habitat and food for diverse organisms.





SPRINGS COAST RESILIENCY & BIODIVERSITY MONITORING NETWORK - OVERVIEW

Hardbottom Habitat Monitoring

Collect habitat data and site usage yearly to establish long-term datasets.

Characterize Connectivity

Assess habitat conditions of seagrass and hardbottom and characterize their connectivity.

Public Data

Ensure all data is publicly available and accessible while using datasets to monitor trends and inform management decisions.

Water Quality

Expand current water quality program to add additional long-term monitoring stations, increase nutrient sampling and monitor harmful algal blooms.

Strengthen Partnerships

Work with University of Florida researchers to conduct multiple research programs supporting the program.



IMPORTANCE OF LONG-TERM MONITORING PROGRAMS

- Provide valuable insight on current baselines.
- Allow for tracking trends and changes over time.
- Able to measure damages following events such as harmful algal blooms or hurricanes.
- Characterize use of habitat by different organisms.
- Determine value of habitat.





PROJECT GOALS AND OUTPUTS



- Establish long-term baseline data that provides useful insight in future management.
- Whole ecosystem approach:
 - Hardbottom transects.
 - Fish and invertebrate surveys.
 - Water quality and nutrient monitoring.
 - Plankton identification and HAB monitoring.
- Characterize habitat use and connectivity.
- Make data publicly available through SEACAR.
- Publish any notable findings.



PARTNERS

- UF LAKEWATCH.
- UF/IFAS.
 - Dr. Reynolds and Dr. Barry.
 - Characterizing connectivity.
- UF/NCBS.
 - Dr. Chargaris.
 - Data analysis using SEACAR.
- Big Bend Seagrasses and Nature Coast Aquatic Preserves.











THANK YOU

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