

SCTLD Reconnaissance and Monitoring in Florida

Stephanie Schopmeyer

Associate Research Scientist

Florida Fish and Wildlife Research Institute

Stephanie.Schopmeyer@MyFWC.com



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SCTLD Recon/Monitoring Metadata

- Regional maps tracked progression since 2014
- Disease response data compiled May 2018 to present
 - Most data opportunistic/collected as part of other projects/programs
 - Coordinated with long-term monitoring programs and disturbance response monitoring program
- Agencies/Organizations



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Stony Coral Tissue Loss Disease Occurrence Across Florida's Coral Reef

2020

■ Coral Reef & Hardbottom Reports of Disease Outbreak

■ Reported

■ Not Reported

N

50 Miles

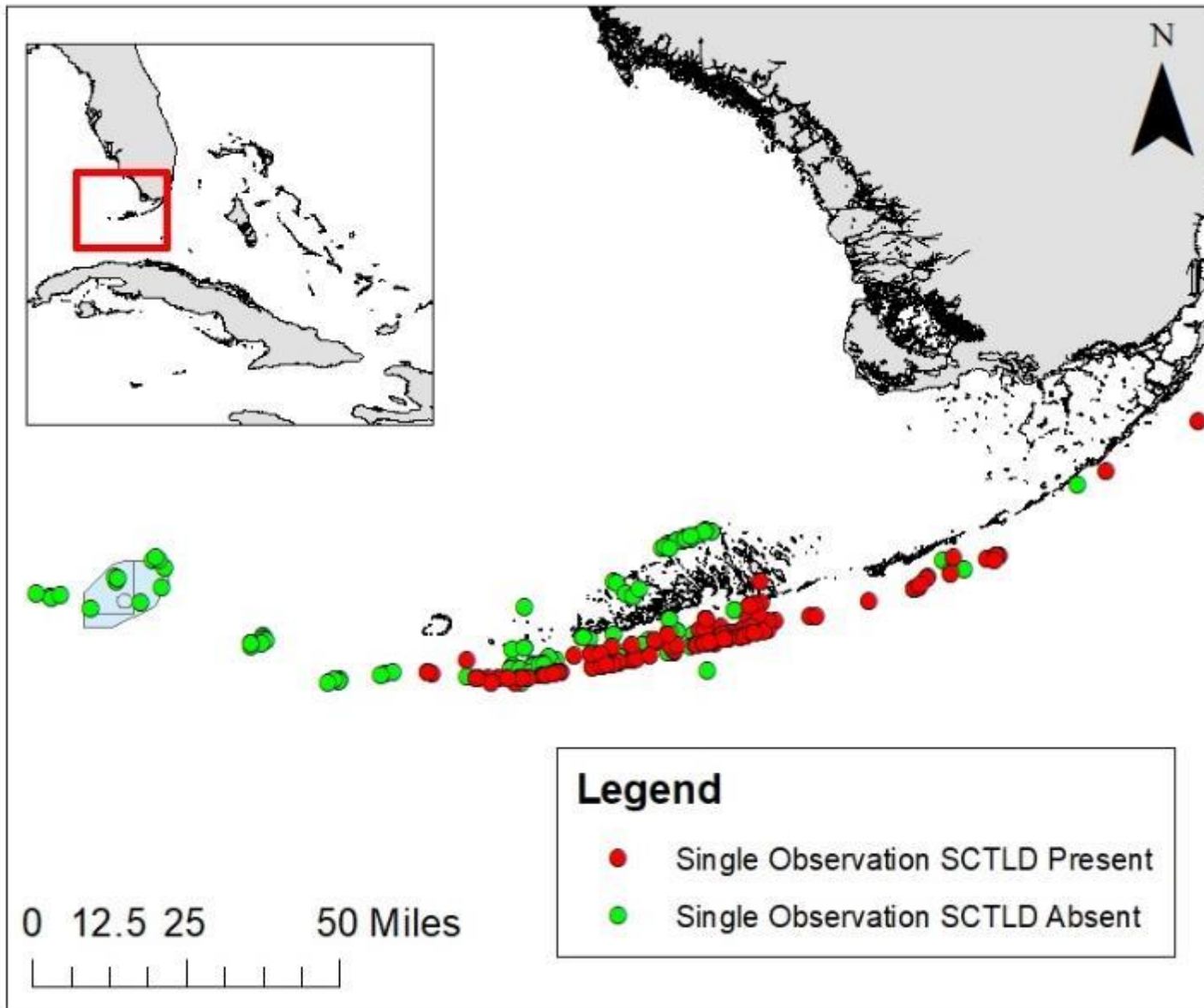


Requested Data for SCTL D Recon

- Site Name
- GPS Lat/Long
- Date of observation
- Surveyor/Affiliation
- SCTL D present?
- Estimated # of colonies affected
- Notes
 - species affected
 - other DZ observed
 - acute/chronic lesions

Site Name	Lat	Long	Date	Surveyor/ Affiliation	SCTL D Present?
Cosgrove 2	24.44645	-82.03740	5/4/2019	FWC	no
Unicorn					
Corral	24.46397	-81.98330	5/4/2019	NSU	no
Lost Reef	24.46265	-82.26490	5/21/2019	NSU	no
FWC Conch	24.45928	-82.15400	5/5/2019	FKNMS	yes
Rescue 37	24.44682	-81.98710	5/3/2019	TNC	no
Marquesas 2	24.45035	-81.98020	5/3/2019	SEAFAN	no
Pelican 2	24.44565	-82.00990	5/4/2019	FWC	no
East of MK32	24.55145	-81.43100	10/2/2018	Mote	yes
MK 32	24.54996	-81.52360	10/2/2018	Mote	no
Marq 1	24.54426	-81.44850	10/2/2018	Mote	no
1187	24.52042	-81.53160	10/2/2018	Mote	yes
1196	24.48912	-81.67950	10/4/2018	FWC	no
1384	24.50152	-81.67910	9/6/2018	FWC	no
1404	24.50233	-81.61340	9/6/2018	FWC	yes
4586	24.55253	-81.58660	8/13/2018	FWC	no
4586	24.55253	-81.58660	9/12/2018	FKNMS	no
4601	24.52216	-81.52050	8/17/2018	FWC	no
4967	24.47695	-81.90170	4/15/2019	FWC	no
4967	24.47695	-81.90170	4/15/2019	NSU	no





Florida's SCTLD Monitoring Approach



TRACK SCTLD
PROGRESSION



PROVIDE DATA RELATED TO
INTERVENTION, RESCUE, AND
MODELLING



EVALUATE TRENDS



MONITOR FOR
RECOVERY



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Lessons Learned



Develop a reliable network of partner data

-Training

-QAQC



Qualitative vs. Quantitative

-based on project needs



Develop standardized monitoring and reporting methods

-datasheets, mapping, database



Challenges

- Funding- no dedicated recon/monitoring funding
 - Most observations provided by partners working on other projects
- Most recon served as a snapshot in time (presence/absence)
 - ~80% of sites visited once
 - monitoring designed to be rapid
- Recon data alone does not allow for determination of severity, longevity, prevalence, reoccurrence, and/or potential “resilience”
 - More useful with other response data
 - Large time gaps in observations
- Speed of SCTLD progression didn’t allow for quantitative analysis
 - Specialized research projects
- Focus on disease boundary limited understanding of dynamics within epidemic/endemic zones
- Availability of monitoring data in real time



Future of SCTLD Monitoring in Florida

- Continue to track the disease boundary
 - Prepare intervention strategy for Dry Tortugas area
- Provide monitoring data for FL and Caribbean SCTLD response
- Estimate overall mortality for FL using long-term monitoring data
- Investigate trends within endemic zone for resilience studies/research needs
- Determine suitability of sites for restoration
 - Monitor SCTLD prevalence
 - Prepare restoration plans



Long-term Monitoring Considerations

- Disease progression/boundary
- Transmission/spread
 - Hydrology, hotspots, ports/marinas
- Prevalence/longevity/severity
 - Disease zones
- Time Series
 - Temporal/spatial scales
- Intervention success
- Colony location for rescue
- Changes in community structure
- Recovery/resilience
- Reproduction
- Restoration

