

CHNEP Volunteer Oyster Habitat Monitoring: Methods for Citizen Scientists

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Protecting and restoring water resources from Venice to Bonita Springs to Winter Haven



2011 Identification of the
Need to Develop an Oyster
Restoration Plan

2012 Southwest Florida Oyster
Working Group – Completion
of CHNEP Oyster Habitat
Restoration Plan

2013-2015 TNC & Partners
Pilot Restoration Project &
Permitting

2016 Pilot Project Monitoring
& Development of VOHM
Program

Charlotte Harbor National Estuary Program Oyster Habitat Restoration Plan



Charlotte Harbor National Estuary Program Technical Report December 2012



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Why Use Volunteers?

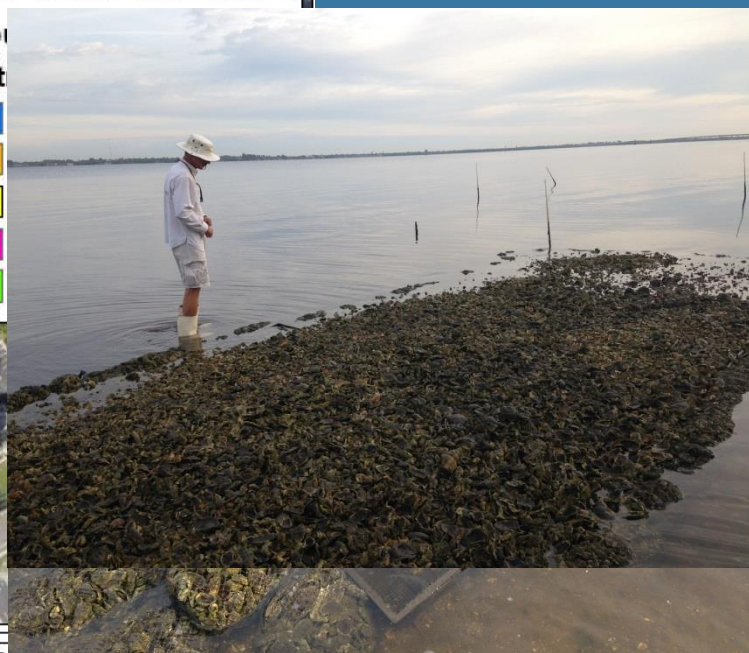
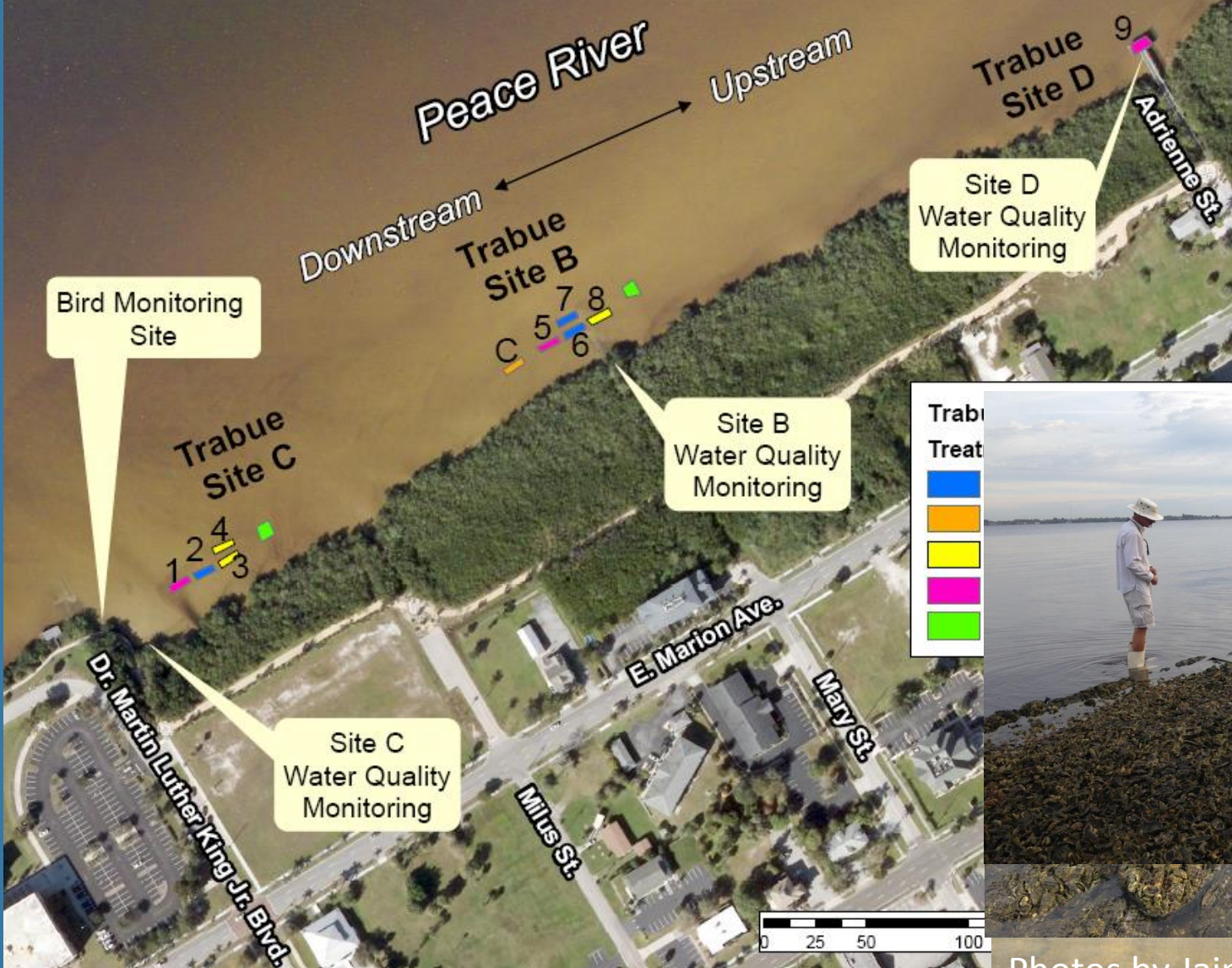
- Need for Long-term Data
- Abundance of Interested Citizens
- Engaged Community = Community Support



Photo from TNC

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Photos by Jaime Boswell

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Reef Area

- TNC – GPS locations of corners
- Volunteers
 - Measuring tape
 - Haglof DME Ultrasound
 - Quicker and more accurate



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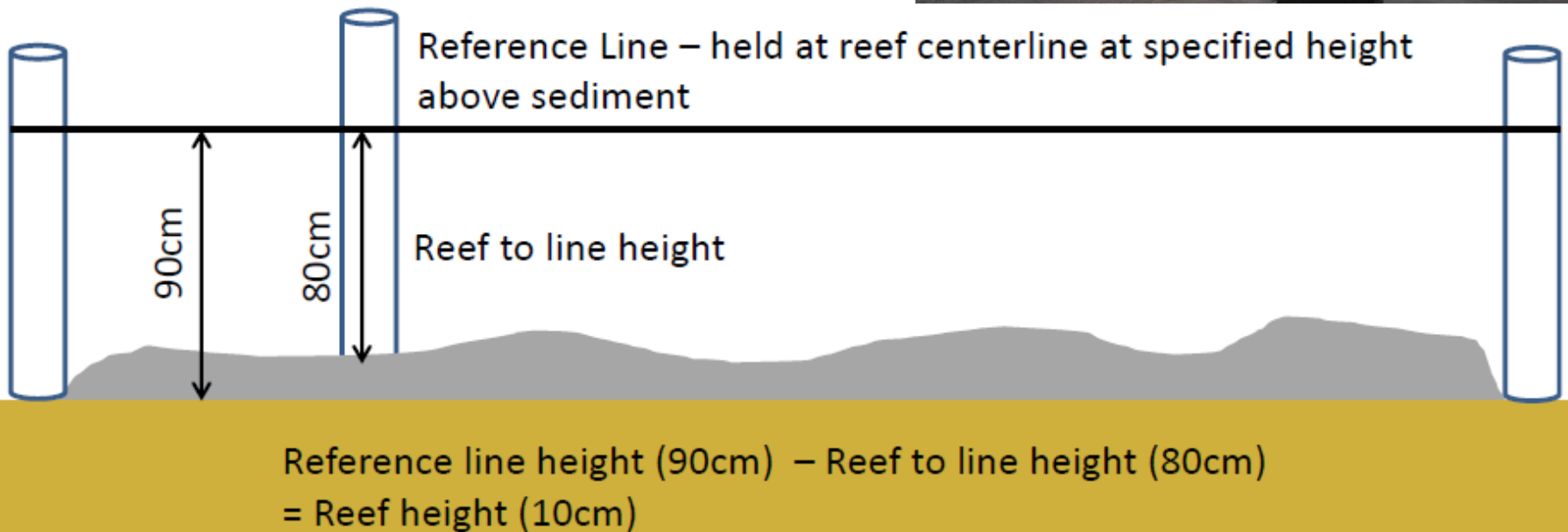


Reef Height

- TNC – Rebar method
- Volunteers – Line method



Photo by Jaime Boswell



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Live Oyster Density and Size

- TNC – Sampling Trays
- Volunteers - Random



Photos by Jaime Boswell

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Shell Volume



Photos by Maran Hilgendorf

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Water Quality

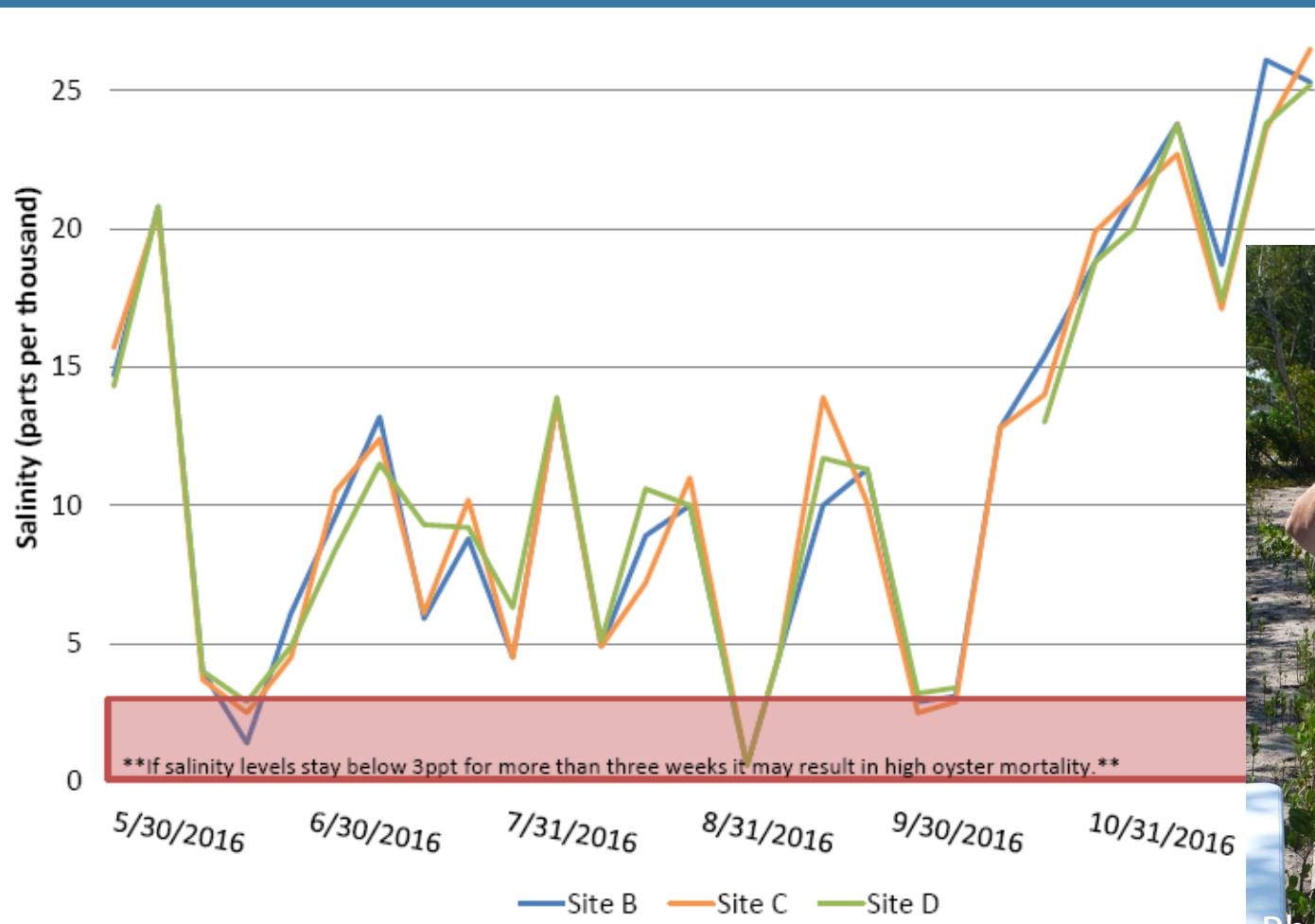


Photo by Jaime Boswell

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Shoreline Location



Photo by Maran Hilgendorf

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Crown Conch



Photo by Jaime Boswell

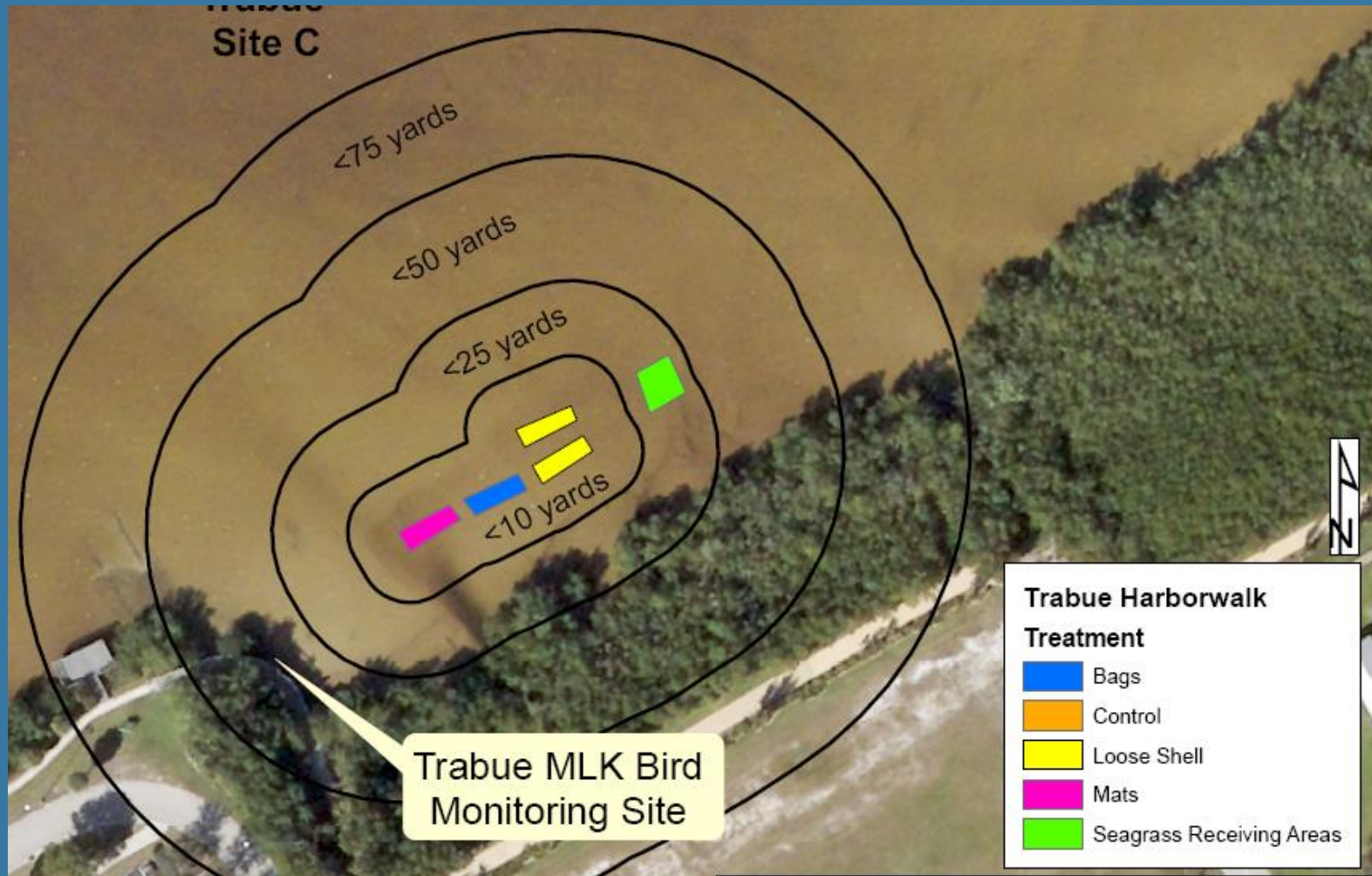


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Waterbird Monitoring



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17 Waterbird Species



Photo by Jim Knov

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Photo by Phyllis Cady

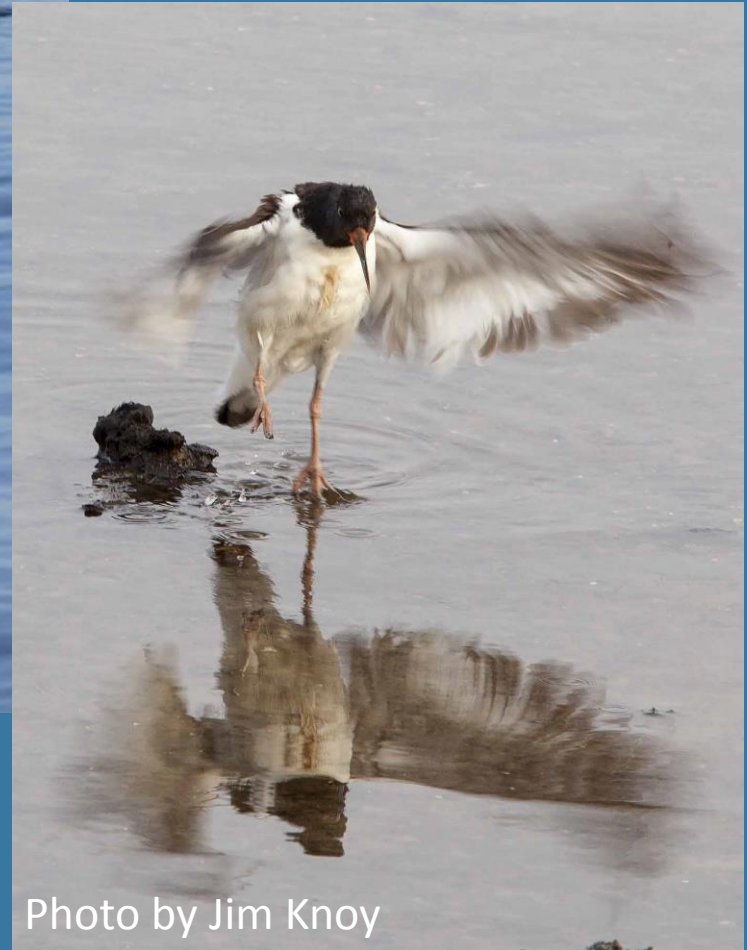


Photo by Jim Knoy

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Metric	Required or Optional	Frequency/ Timing	# of Volunteers	Effort
Reef Area & Height	Required	1/year fall/winter	3	0.5 day
Live Oyster Density & Size	Required	2/year fall & spring	6+	2 days per season
Water Quality	Optional	Weekly	4-6 (rotating)	1.5 hours/week
Shoreline Location	Optional	1/year fall/winter	2	1-2 hours
Waterbirds	Optional	2x/month	4-10 (rotating)	1.5 hours per sample
Crown Conch	Optional	4x/year seasonal	2	1-2 hours per season

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From Harbor Style Outdoor Life Magazine December 2016 www.harborstyle.com

ON THE WATER

Story by Robin Gardner | Photos provided by The Nature Conservancy

OYSTER REEF RESTORATION UPDATE

Punta Gorda's newly installed oyster reef habitat comes to life.

Forward Momentum...

<http://www.chnep.wateratlas.usf.edu/oyster-habitat-restoration/>

CHNEP Volunteer Oyster Habitat Monitoring Program

- Volunteer Coordinator Manual
- Volunteer Manual
- Standard Operating Procedures



Credit: Ray Cady, Peace River Audubon Bird Monitoring Volunteers



Credit: Jaime Boswell, Reef Height Monitoring



Credit: Jaime Boswell

Charlotte Harbor National Estuary Program January 2017



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36 Volunteers – 450 Hours



Photo by Maran Hilgendorf



Photo by Ray Cady

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Acknowledgements



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