

Using Oyster Catcher™ Tables to Create Foraging and Nesting Habitat for American Oystercatchers

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Sandbar Oyster
Company



**2023 Meeting of the American
Oystercatcher Working Group**
November 7-9, 2023
Plymouth, Massachusetts





The Nature Conservancy 
Protecting nature. Preserving life.™

spring 2020 - test rows of Tables pushed into the soft peat bottom.

inset: fall 2020 – oysters covering the Tables.



The Nature Conservancy 
Protecting nature. Preserving life.™


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Jul 2018

Jul 2023



Field of Tables deployed by TNC staff and volunteers shoreward of a row of interlocked Tables deployed in 2022.

Wachapreague, VA



Wachapreague, VA

Sep 2023



Oct 2023

This view shows the single interlocked row of Tables farther offshore deployed in 2021.



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The Nature
Conservancy



Protecting nature. Preserving life.™

Savannah, GA

May 2021

Oyster Catcher™ Tables are ideally suited for reef building over soft mud to hard-packed sand and shell-dense bottoms. As tide range increases, so too does the potential vertical height of Oyster Catcher™ frameworks and resulting oyster reefs.



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March 2022

Savannah, GA

~10 months of oyster settlement and growth on an Oyster Catcher™ Table reef. Inset – oyster growth on the underside of Tables.



March 2022

Savannah, GA



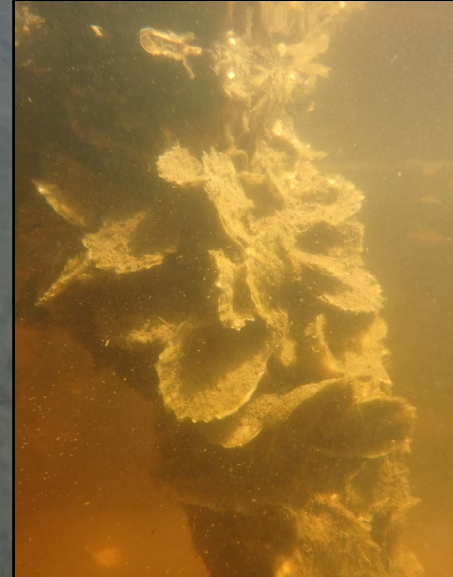
Swansboro, NC

May 2023

The ability to interlock Tables (= inserting the legs of one Table through the top of ones below) and sinking Table legs into bottom sediments (= multiple anchoring points) creates reef frameworks that are exceptionally resilient in high-energy environments. The reefs become even more robust as oyster growth locks the Tables together. Inset – settlement and growth of oysters 4 months after Table deployment.



Oct
2023



June 2023

Swansboro, NC



Inset – cross-section view of stacked Table reef framework constructed with ledge-legged Tables.



Table reef framework with a side-by-side bottom tier and “ledged legs” Tables above giving ~6 inches of space between each tier. Here, oysters will grow from the top of the framework to the top of the lowest tier, creating an oyster-dense reef elevated ~12 inches above the bottom.



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intertidal oyster leases



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Newport River

Phillips Island
(donated to UNC in 2022)

Features of the Newport River estuary relevant to AMOY foraging and nesting.

ICW channels

Beaufort, NC

shell rake

4 nesting pairs in 2023



Aug 2015

“The Lump” - ground-level view

**SANDBAR
OYSTER CO
BL1800853
WC1800861**

View of SANDBAR’s first intertidal shellfish lease and first deployments of Oyster Catcher™ materials for oyster reef development. Cement-coated crab pots along the perimeter of the lease were used as a “control” against which to compare oyster reef development over time. Oyster Catcher™ yielded better oysters reef development than the crab pots.



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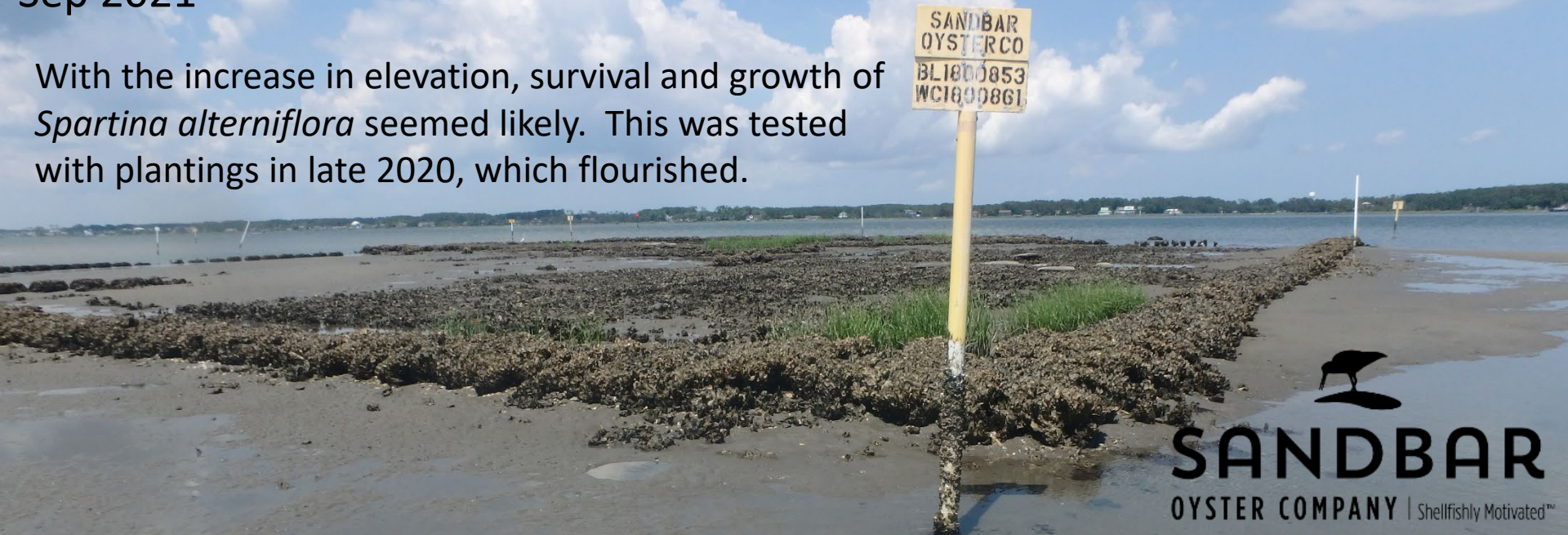
OYSTER COMPANY | Shellfishly Motivated™

Mar 2020



View of ~5 years of oyster reef development with annual, incremental deployments of Oyster Catcher™. As the reefs grew, they trapped sediments and increased the elevation of the lease area.

Sep 2021



With the increase in elevation, survival and growth of *Spartina alterniflora* seemed likely. This was tested with plantings in late 2020, which flourished.

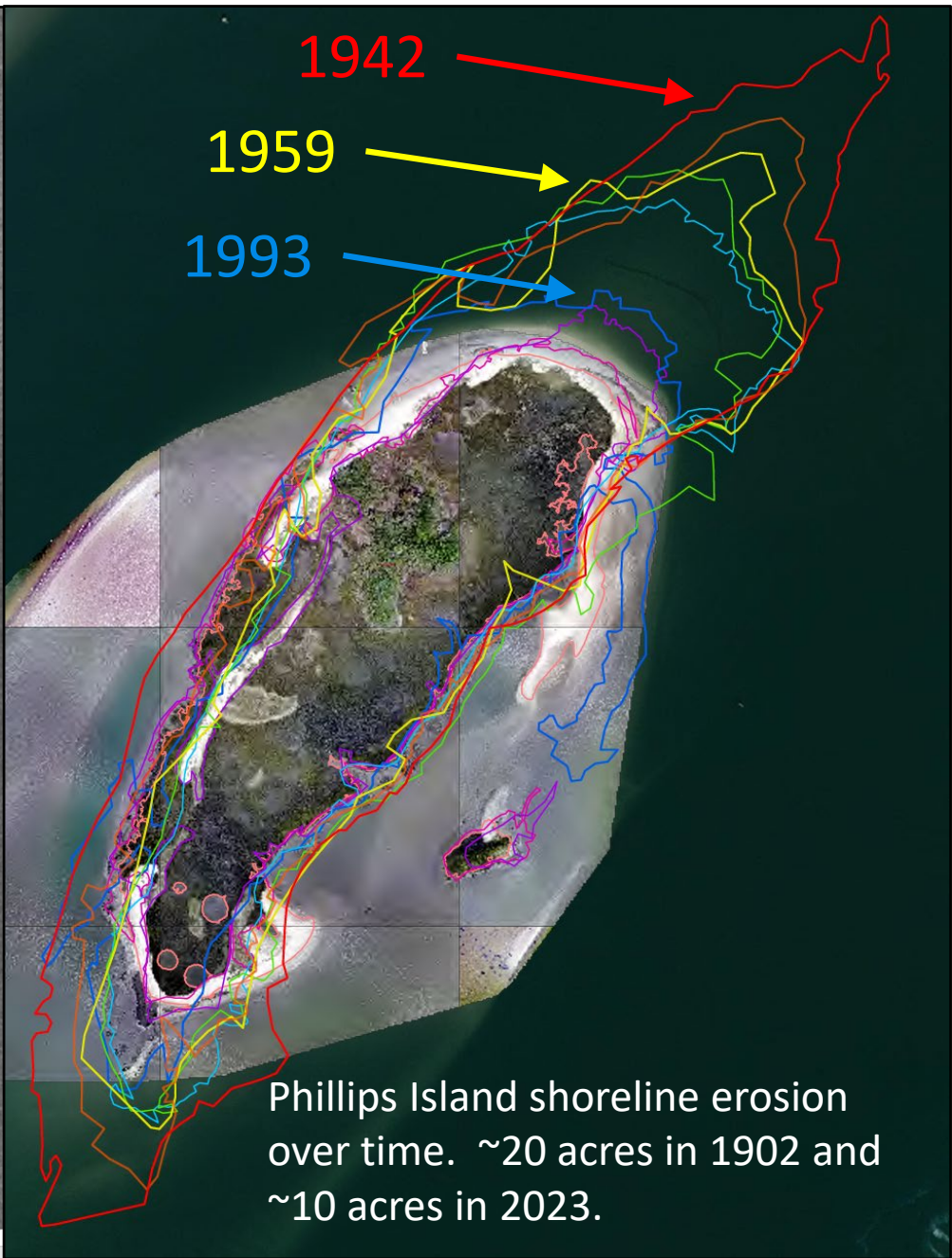
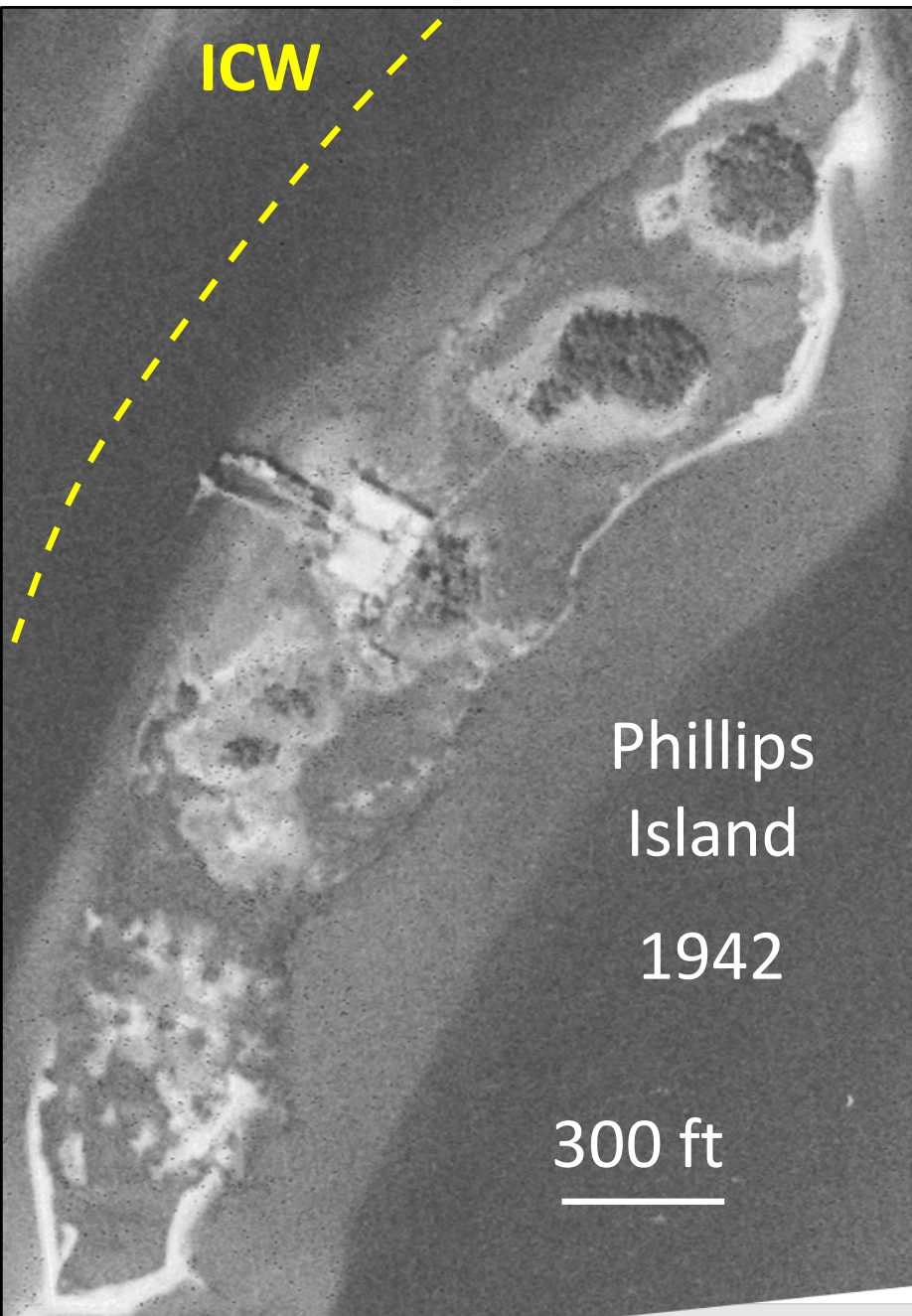
Aug 2023

Views of *S. alterniflora* expansion on The Lump and transfer to SANDBAR's adjacent intertidal lease.

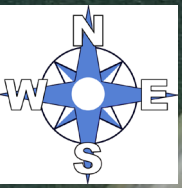


Views of American oystercatchers roosting and foraging on SANDBAR's leases.





Phillips Island, Newport River, NC



Some shoreline areas around Phillips Island where AMOY foraging and nesting habitat can be protected and enhanced and possibly created de novo.

300 ft



no shell rake



low shell rake - sand bar



high shell rake complex AMOY nesting/roosting



Phillips Island, Newport River, NC

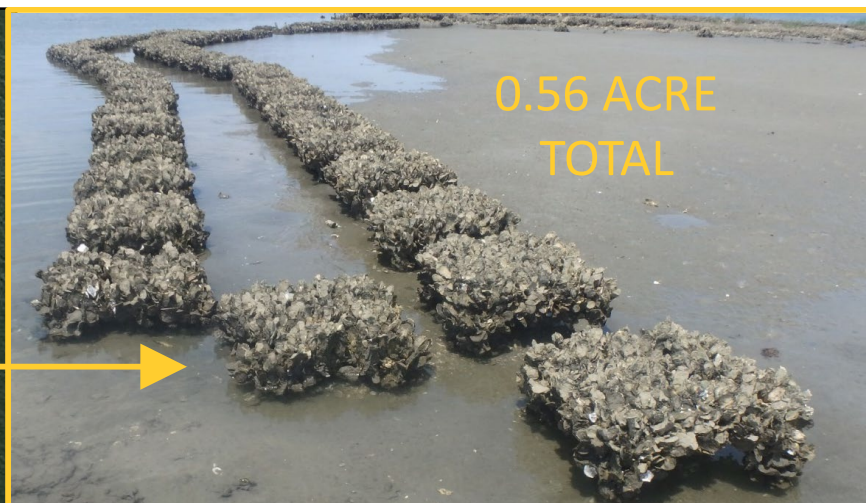


North Carolina
Coastal Federation

www.nccoast.org



Oyster-based living shoreline proposal for Phillips Island.





Moore, Christopher, et al. 2020. *Food Webs* 25 e00167

Wellman, Emory, et al. 2021. *Ecological Applications*
<https://doi.org/10.1002/eap.2506>

Bieri, Elizabeth. 2022. MS Thesis, University of Virginia

Mulvey-McFerron, Owen. 2021. MS Thesis, UNC Chapel Hill

Atkinson, Cameron. 2022. MS Thesis, Savannah State University (GA)

Lucas, Jonathan. 2022. MS Thesis, UNC Chapel Hill

Albright, Anna. 2022 MS Thesis, East Carolina University

Woodward, Nina. 2022. MS Thesis, East Carolina University

Clammerhead 1960-2021



Questions?



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