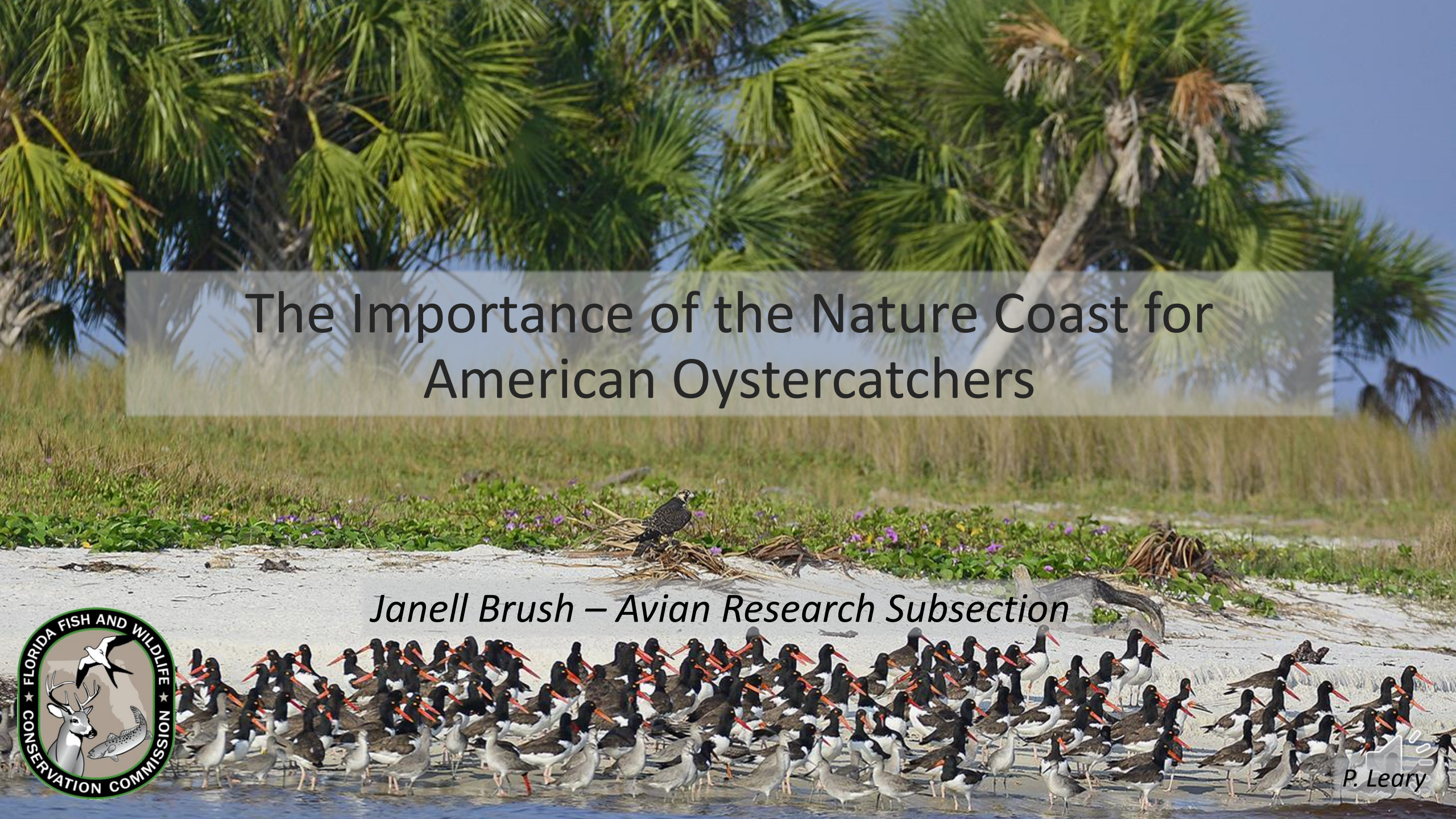
The Importance of the Nature Coast for American Oystercatchers

Janell Brush – Avian Research Subsection



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American Oystercatcher

- Solitary nesting shorebird
- State listed as threatened
- Strong nesting site fidelity
- Territorial
- Semi-precocial chicks
- Commonly found nesting on shell rakes and small islands
- Every nest site is important

American Oystercatcher

- Dependent on coastal areas that support intertidal shellfish beds
  - Oysters
  - Mussels
  - Crabs
- High-tide roost and nesting locations adjacent to foraging habitat

American Oystercatcher

US Atlantic and Gulf Coasts	Florida	Nature Coast

15% of the entire population

Wintering American Oystercatchers

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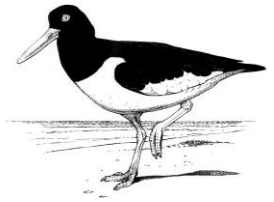
5% of the entire population of American Oystercatchers on one shell rake

Wintering American Oystercatchers

Estuaries and Coasts
DOI 10.1007/s12237-016-0137-6

Importance and Function of Foraging and Roost Habitat for Wintering American Oystercatchers

Janell M. Brush[1] · Amy C. Schwarzer[1] · Peter C. Frederick[2]



- NFWF Shell Grants
- 2011-2013; 2014-2017
- Estuaries and Coasts 2017

Wintering American Oystercatchers

- Prey availability
  - 95% of prey items were oysters
  - 37 minutes* of foraging per day to satisfy daily energy needs

    **biased high*

Not currently limited by prey availability

Limiting Factor: High Tide Roosts

- Offshore reefs
  - Documented declines
  - Eroding at accelerated rates
  - Small number of available roosts
- Optimal view of approaching predators
- Overlap with areas of recreational use
- Costs associated with suboptimal roost locations

Roost Enhancement: Cedar Key

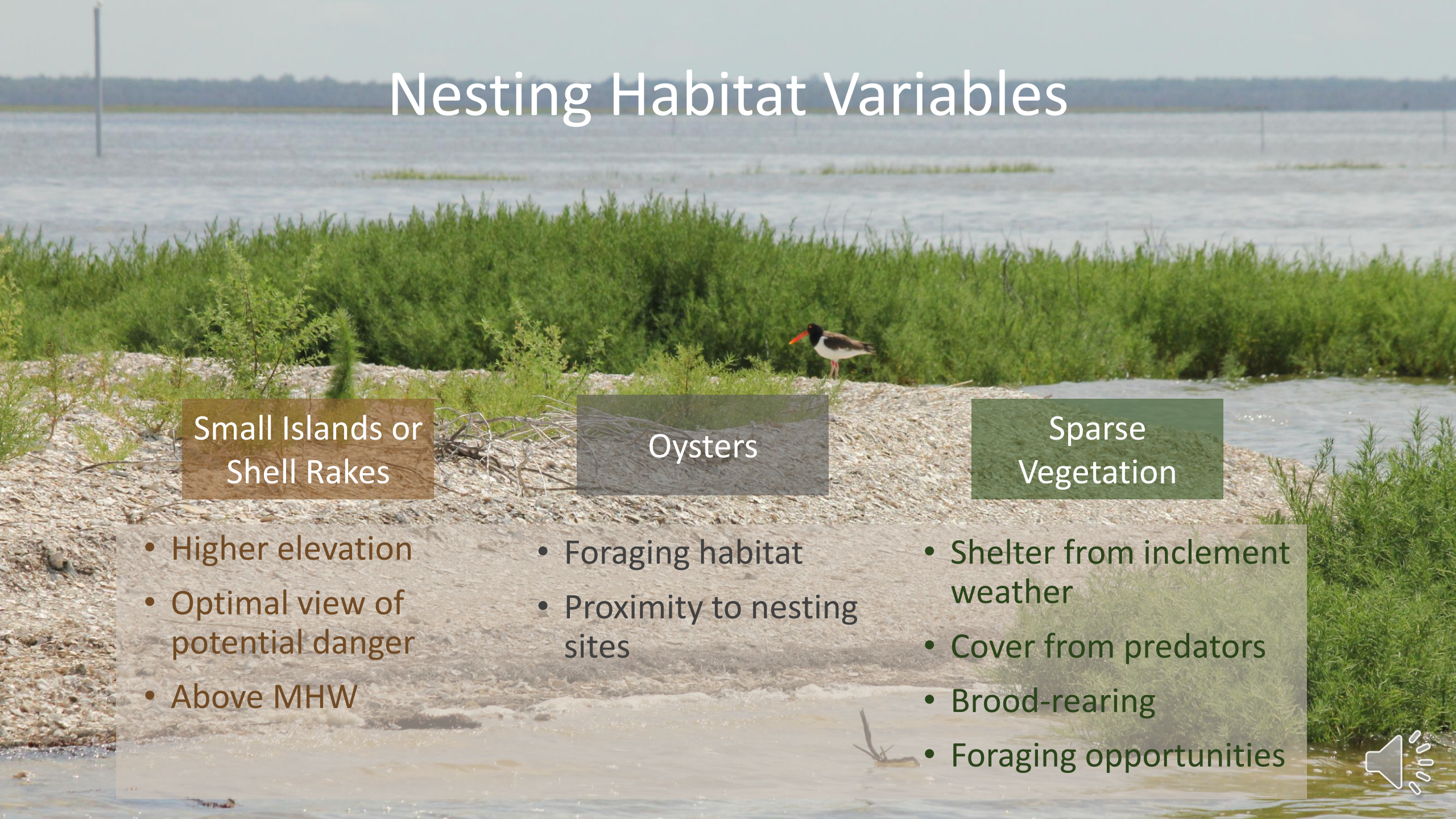
Measuring Success

- Project sustainability
  - Increased reef area, elevation, oyster resettlement
  - Withstood storms and Hurricane Hermine
- Economic impacts
  - Stimulate local economy and develop project support
- Wintering oystercatcher survival and site fidelity
  - Manuscript in prep

American Oystercatcher

US Atlantic and Gulf Coasts	Florida	Nature Coast
12,453 Birds	470 Breeding Birds	124 Breeding Birds
0.47 chicks/pair	0.38 chicks/pair	0.21 chicks/pair
	2,800 Wintering Birds	1,900 Wintering Birds

Nesting Habitat Variables



Small Islands or Shell Rakes

- Higher elevation
- Optimal view of potential danger
- Above MHW

Oysters

- Foraging habitat
- Proximity to nesting sites

Sparse Vegetation

- Shelter from inclement weather
- Cover from predators
- Brood-rearing
- Foraging opportunities

Nesting Areas


Nest Sites


Breeding American Oystercatchers

Estuaries and Coasts
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Loss of Coastal Islands Along Florida's Big Bend Region: Implications for Breeding American Oystercatchers

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Habitat Changes

esa ECOSPHERE

Decadal changes in oyster reefs in the Big Bend of Florida's Gulf Coast

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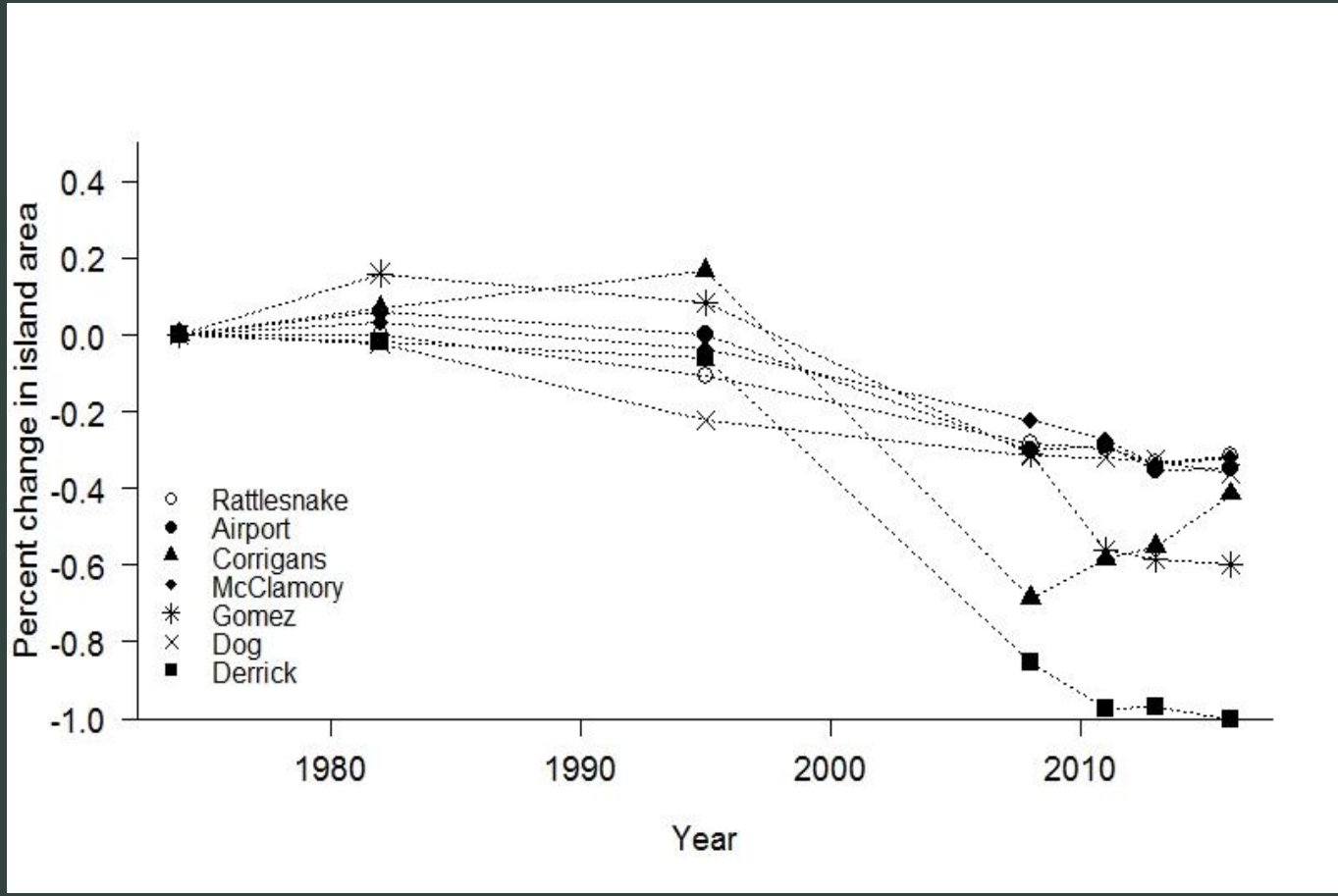
Disappearing Islands

Derrick Key

10 Years

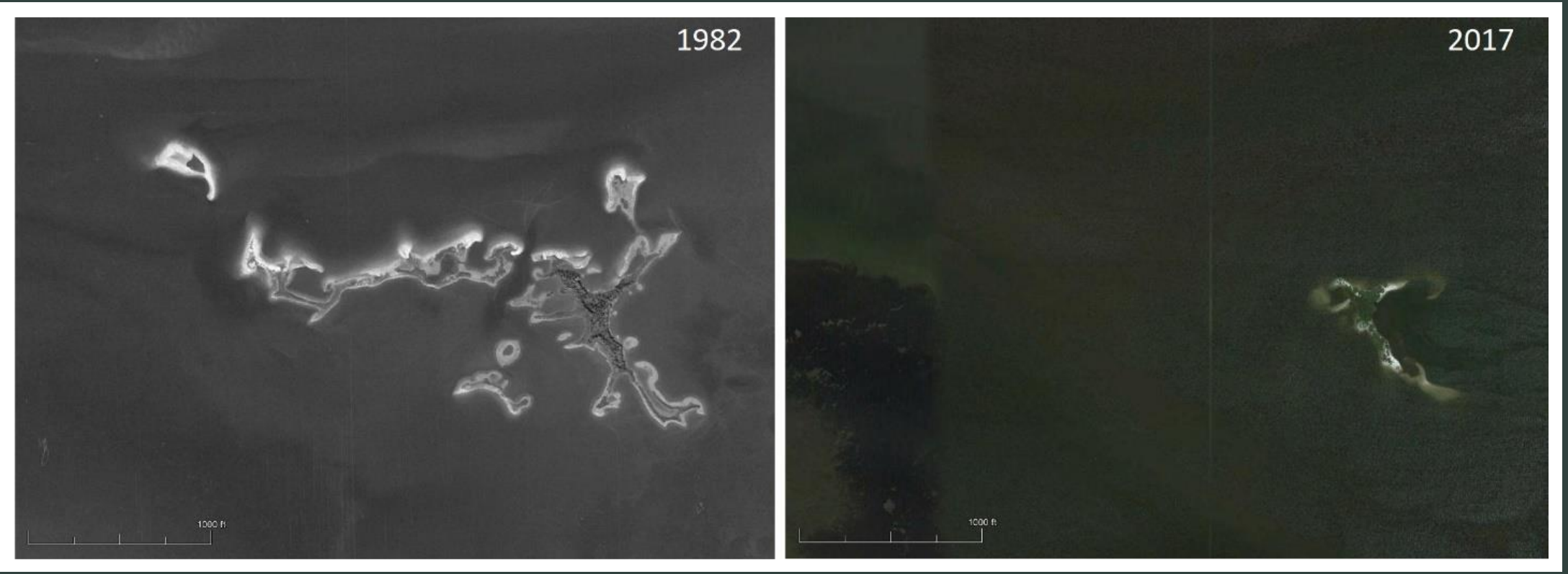
Disappearing Islands



- Total area of nesting islands around Cedar Key decreased by 39% between 1974 and 2016
- 85% of this decrease was after 1995
- Reduction in extent of oyster reefs in the area

Gomez Key Habitat Enhancement

Goal: Restore and conserve bird nesting and foraging habitat



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Thank you!

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