

Diet Composition and Foraging Efficiency of American Oystercatchers in the Cape Romain Region, SC

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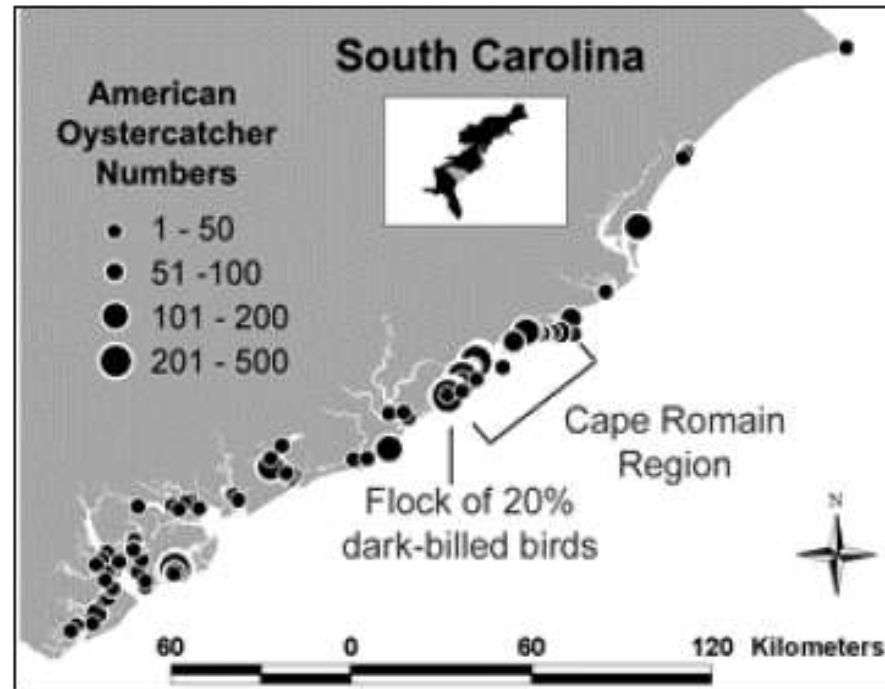


Purpose of Study

- Oystercatcher diets appear to vary seasonally and throughout their range
- Food resources may become limiting for oystercatcher populations
- Necessary to understand foraging ecology to conserve food resources



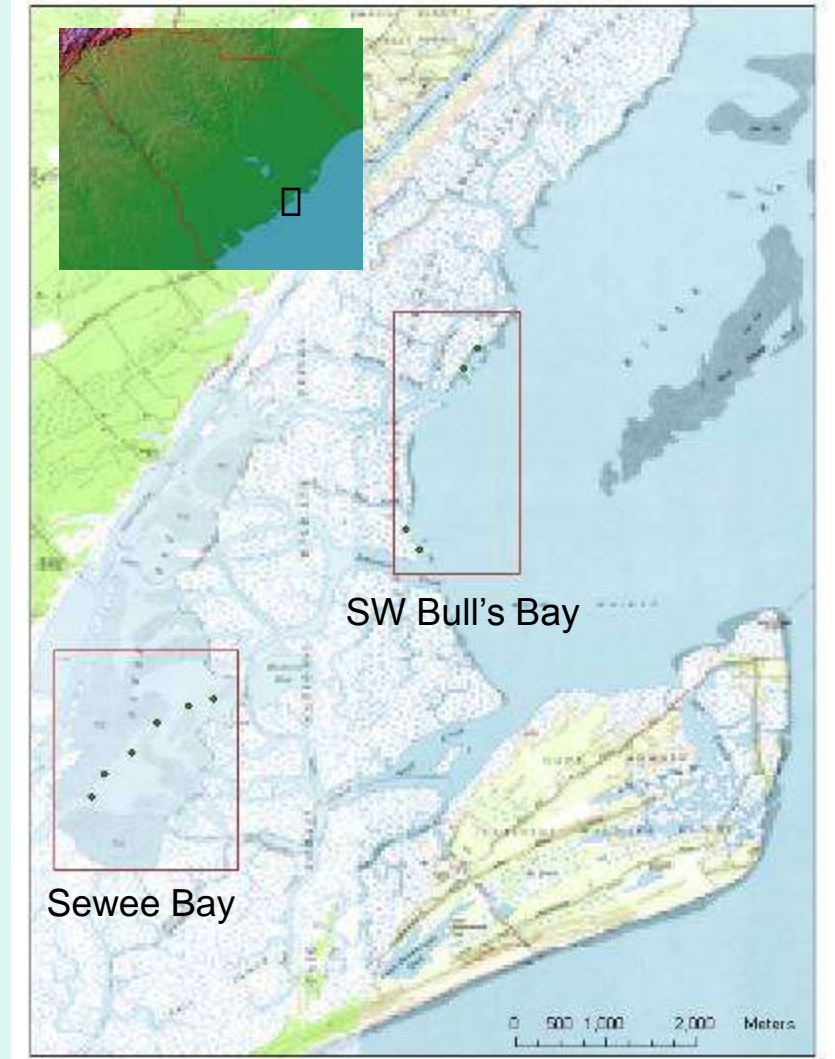
Oystercatchers in South Carolina



Distribution of wintering American oystercatchers for 2002

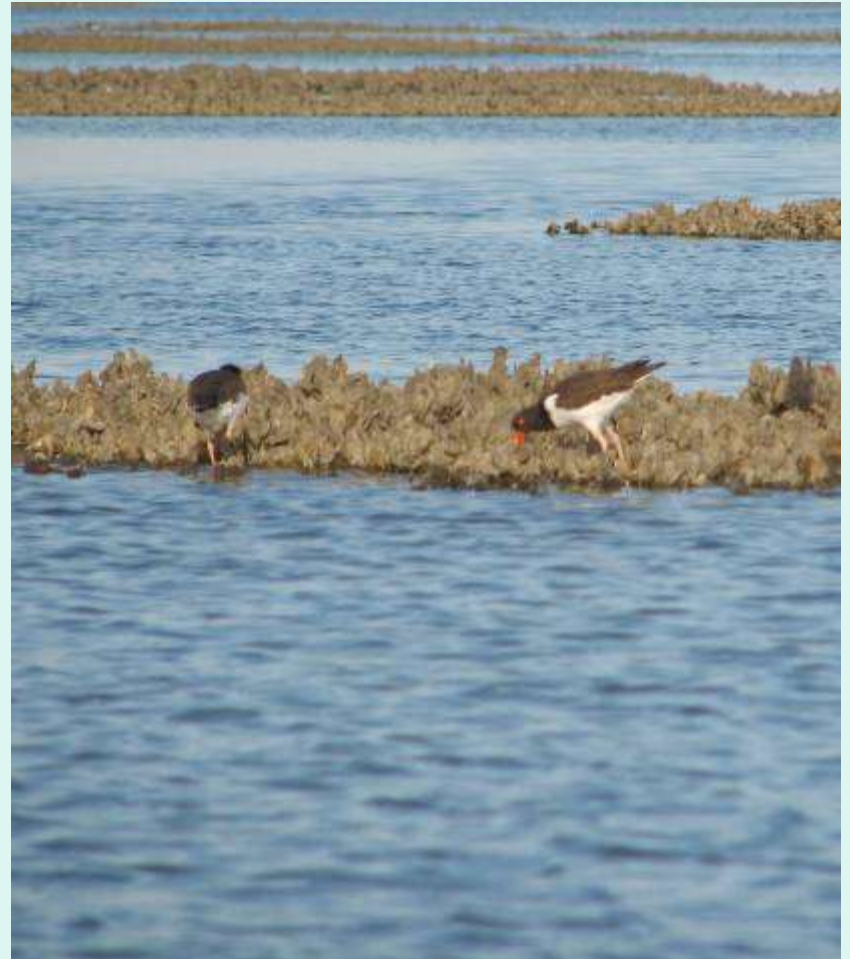
Sanders, F.J., T.M. Murphy and M.D. Spinks. 2004. Winter abundance of the American oystercatcher in South Carolina. *Waterbirds*. 27:83-88.

Winter 2006 and Summer 2007 Study Area



Study Objectives

- Identify important prey items
- Compare diet composition and foraging efficiency between Sewee Bay and Bulls Bay
- Compare diet composition during the breeding and non-breeding seasons

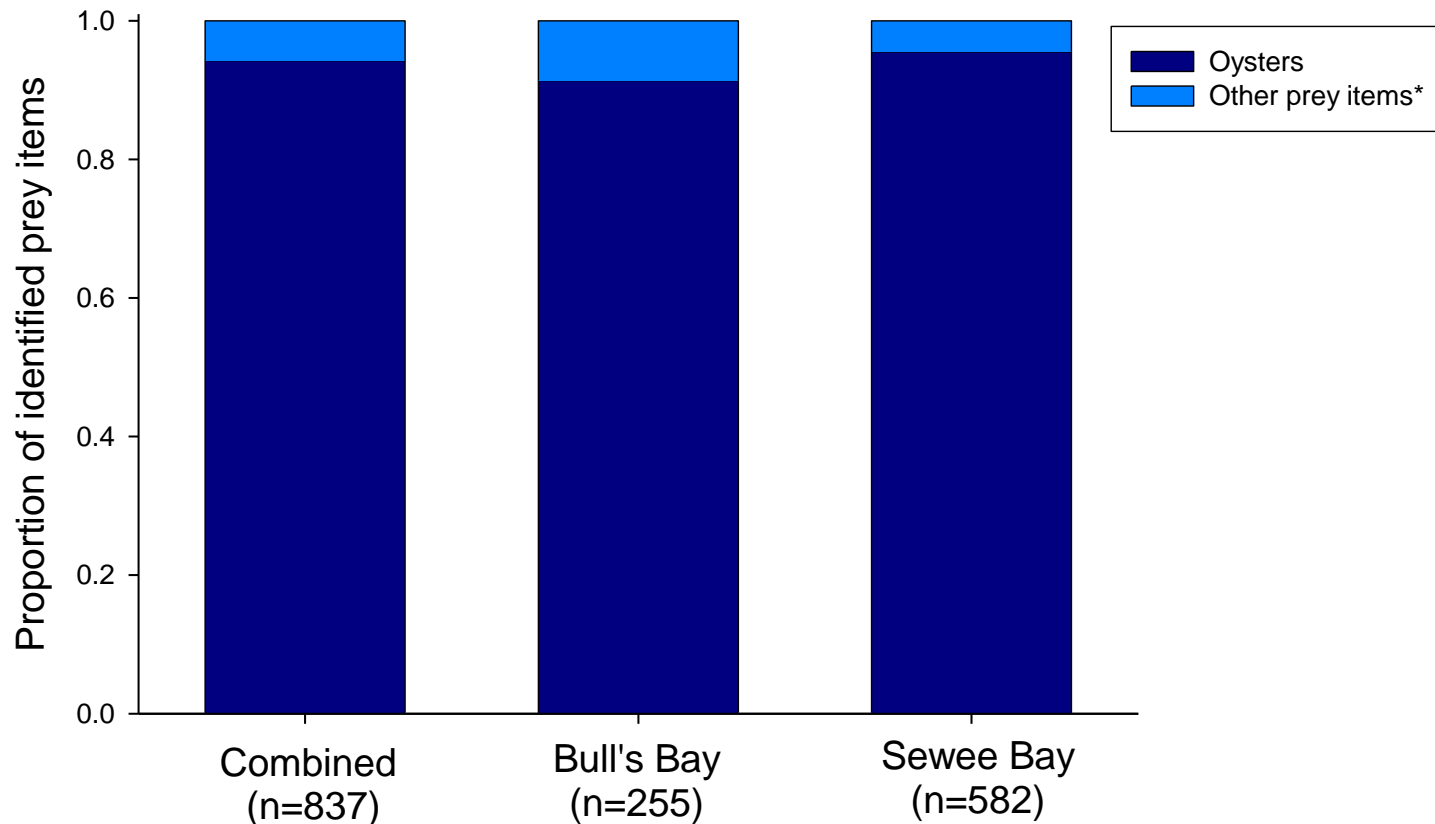


Methods

- Used focal animal observation techniques
- Identified prey items and estimated their size relative to bill length
- Timed searching and handling activities

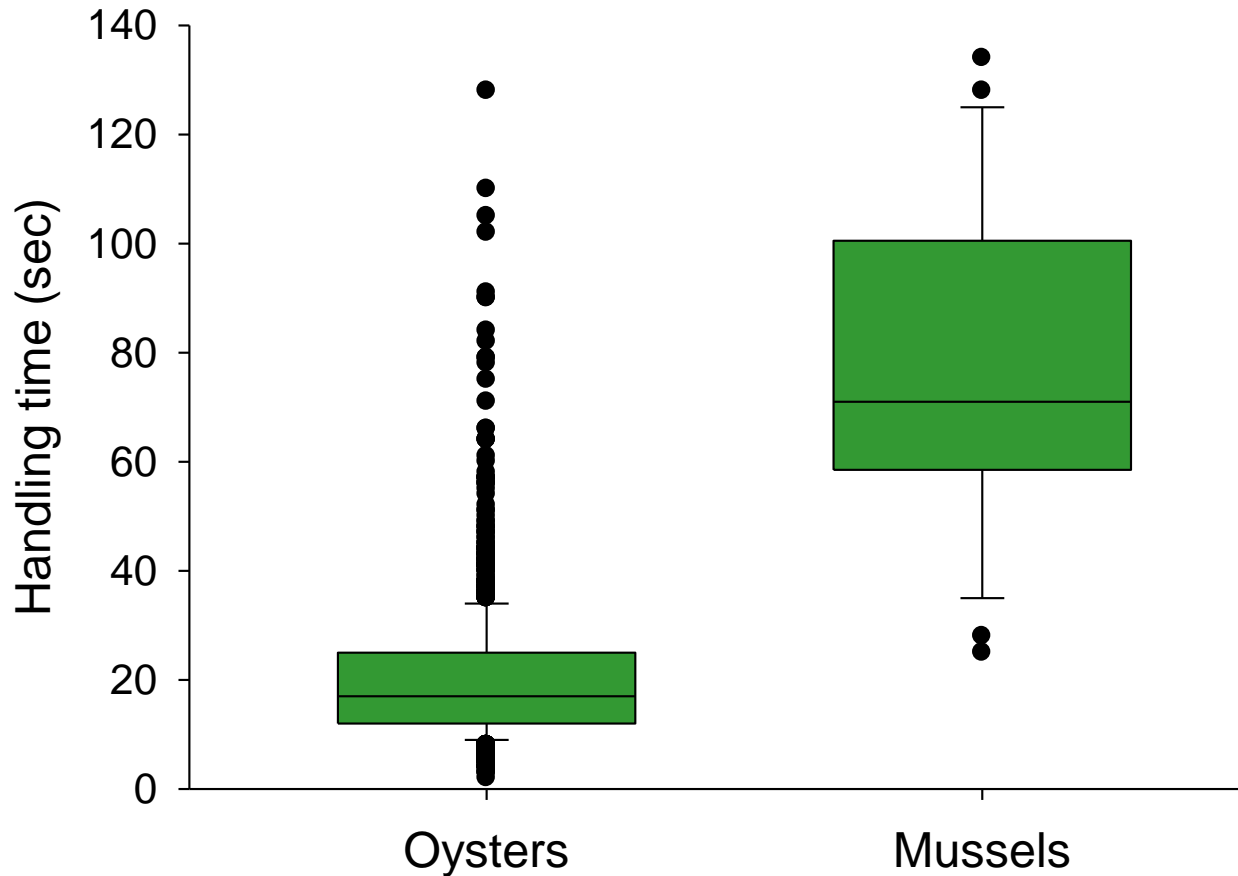


Winter 2006 Preliminary Results: Diet Composition

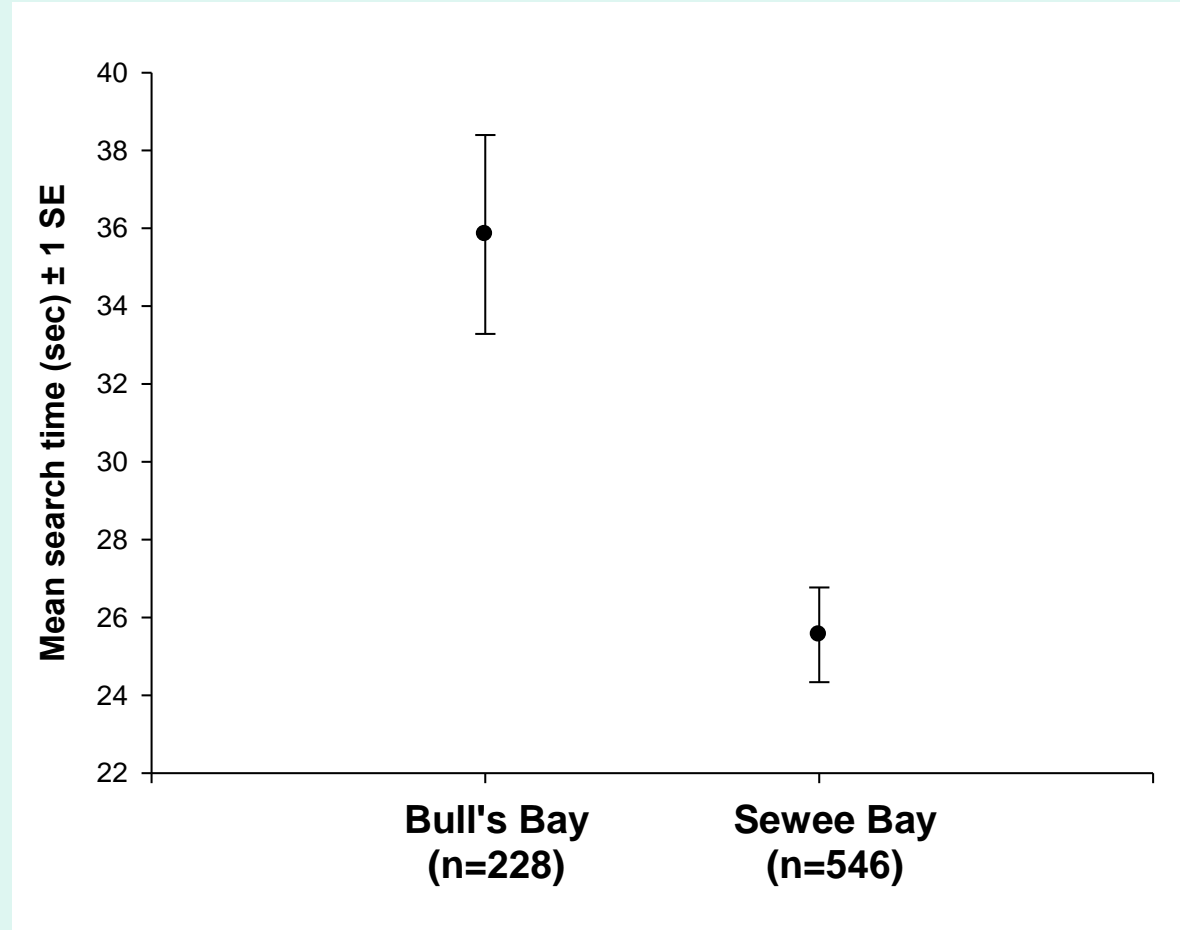


*Other prey items included mussels, clams, and unidentified items.

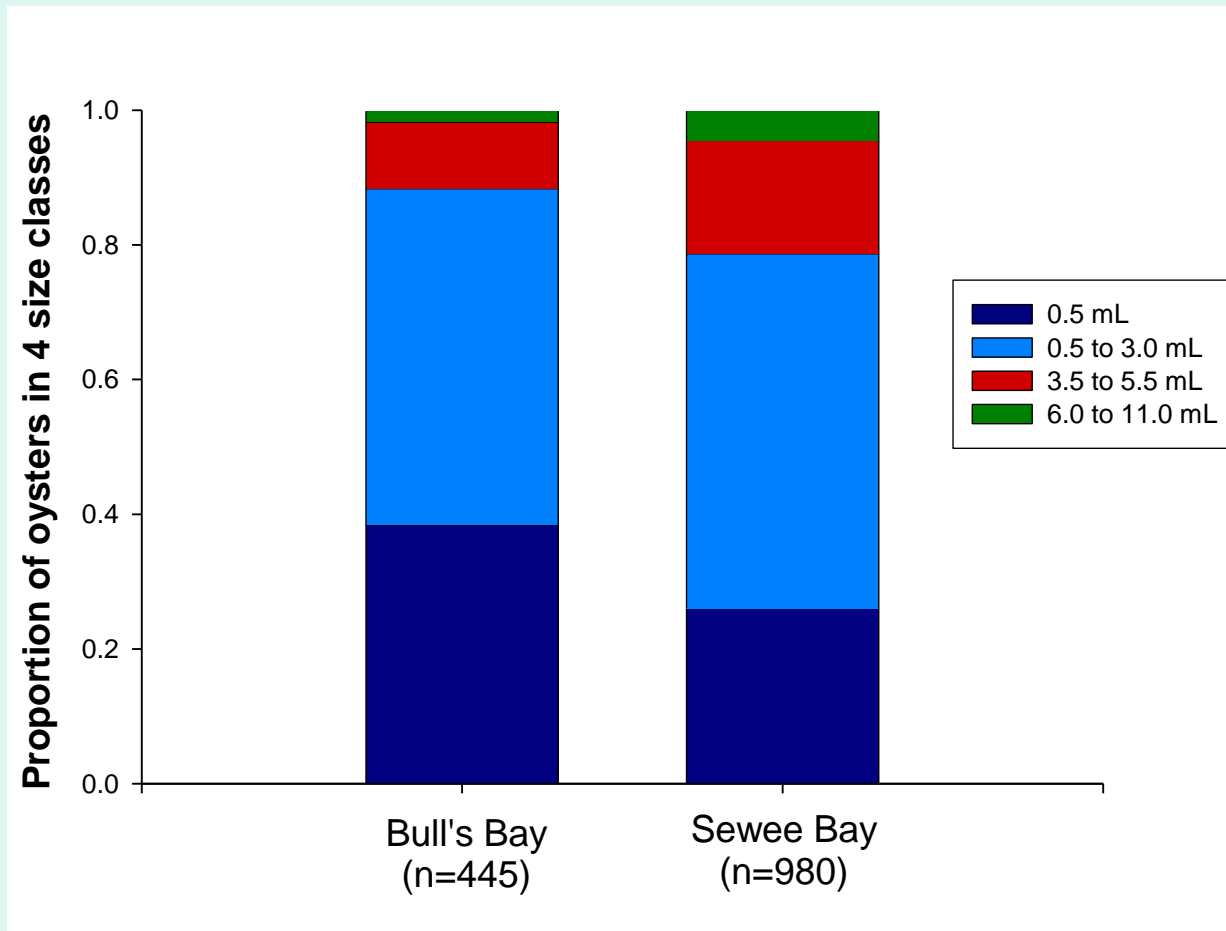
Winter 2006 Preliminary Results: Handling Times by Prey Type



Winter 2006 Preliminary Results: Average Searching Times by Bay



Winter 2006 Preliminary Results: Oyster Size by Bay



Seasonal Comparisons: Sampling Effort

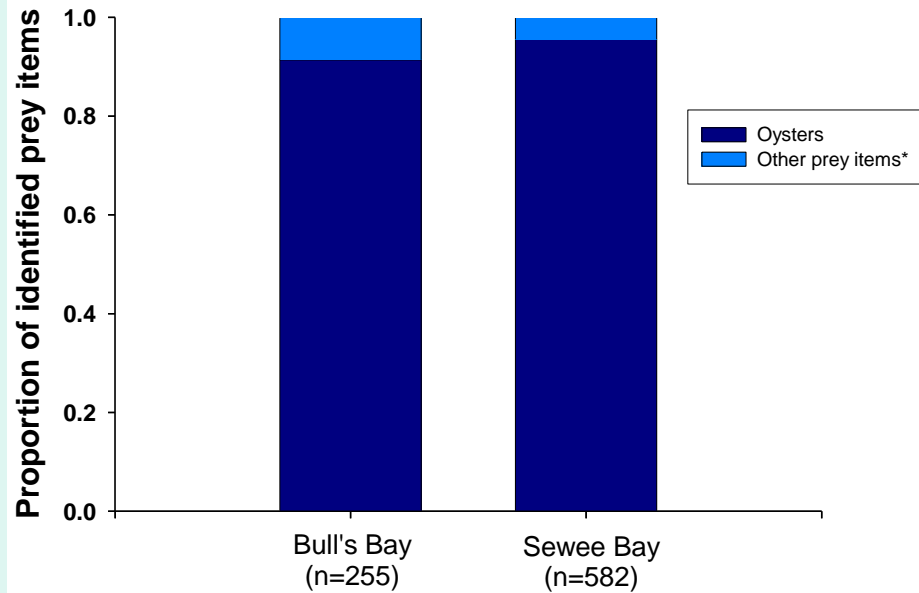
- Winter 2006
 - 22 Trips to Bulls Bay
 - 22 Trips to Sewee Bay
- Summer 2007
 - 12 Trips to Bulls Bay
 - 12 Trips to Sewee Bay

Average Number of Focal
Observations Per Trip

	Bulls Bay	Sewee Bay
Winter	5.82	9.32
Summer	6.08	1.25

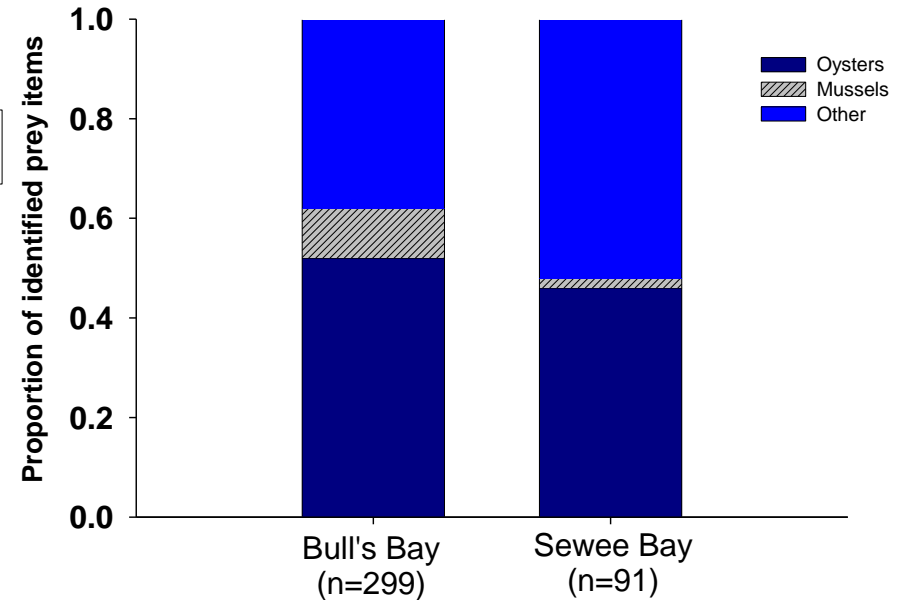
Seasonal Comparisons: Diet Composition

Winter 2006



*Other prey items included mussels, clams, and unidentified items.

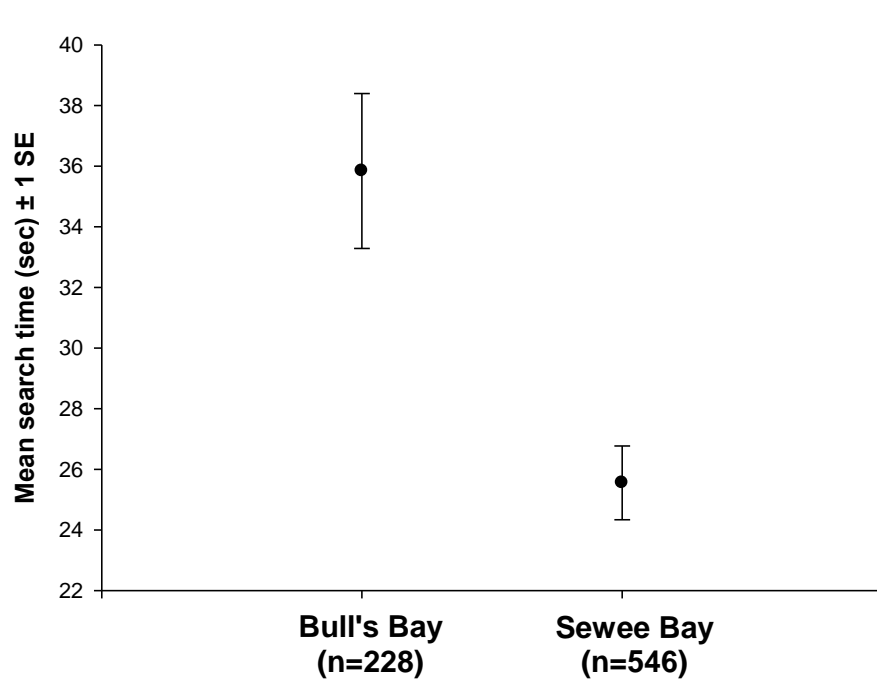
Summer 2007



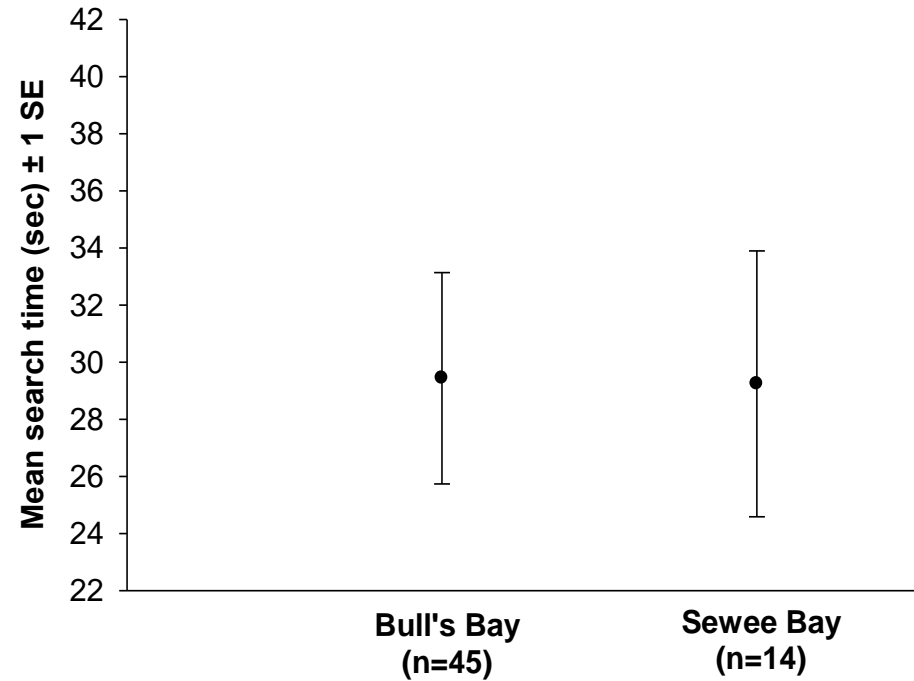
*Other prey items included clams and unidentified items.

Seasonal Comparisons: Searching Times

Winter 2006



Summer 2007



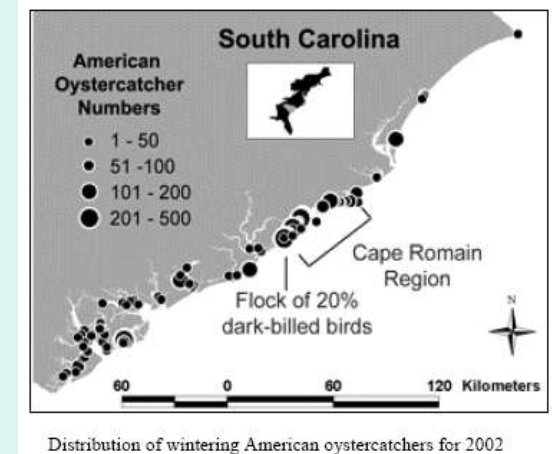
Winter 2007: Age-Related Foraging Efficiency and Interaction Rate

- Threats to American Oystercatchers may affect different life stages differently
- Winter mortality rates are 20% higher for immature European Oystercatchers than for adults



Winter 2007 Study Design

- Study Location: Copahee Sound
 - Near largest known high tide roost in South Carolina
 - 46% of the immature oystercatchers surveyed in SC in 2002 were located at this roost
- Methods: Similar to 2006
 - Feeding Rate
 - Intraspecific Interaction Rate
 - Paired Observations of Adult and Immature Oystercatchers



Acknowledgements

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USFWS Cape Romain NWR

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Questions?

