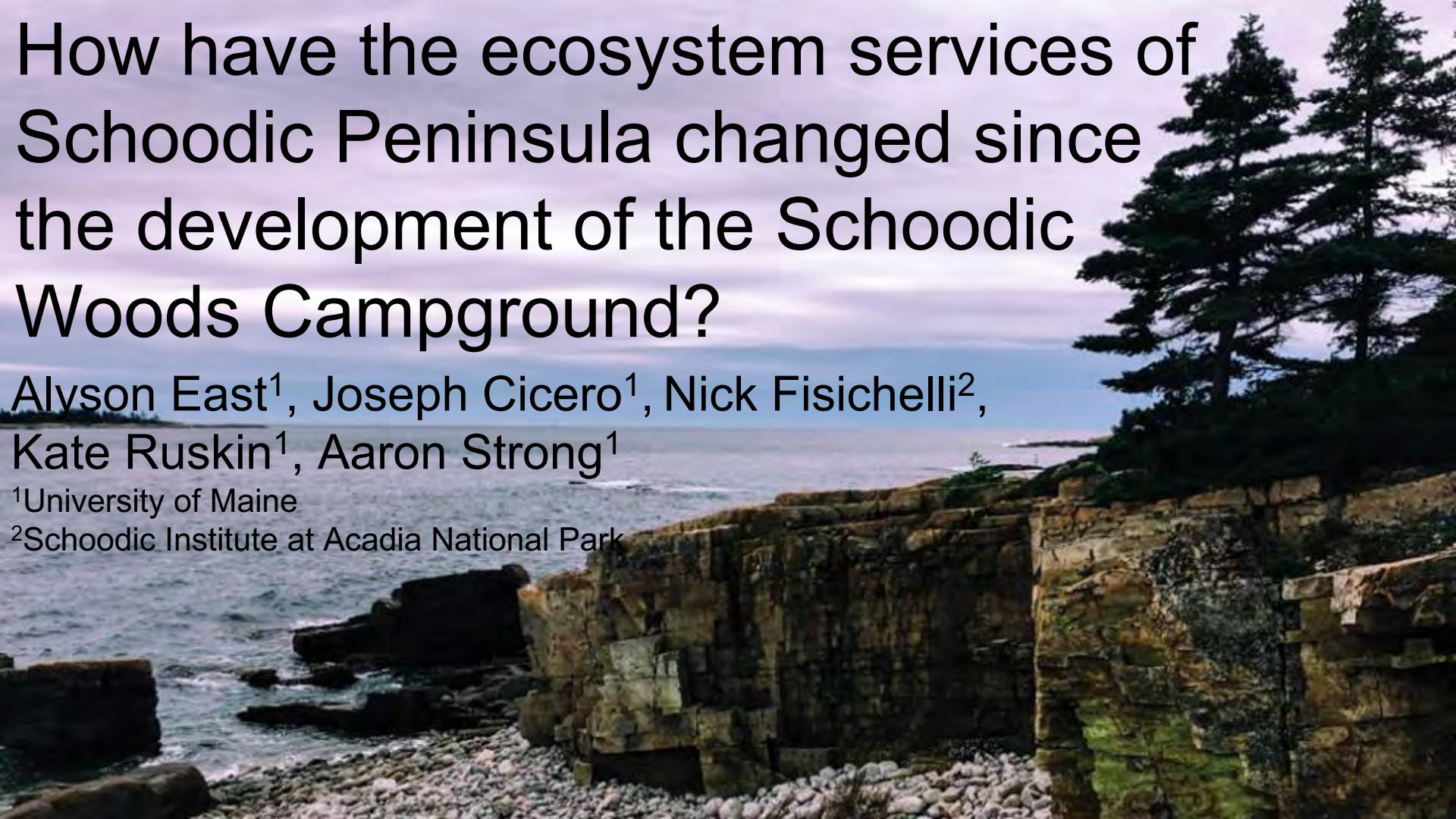


# How have the ecosystem services of Schoodic Peninsula changed since the development of the Schoodic Woods Campground?

Alyson East<sup>1</sup>, Joseph Cicero<sup>1</sup>, Nick Fisichelli<sup>2</sup>,  
Kate Ruskin<sup>1</sup>, Aaron Strong<sup>1</sup>

<sup>1</sup>University of Maine

<sup>2</sup>Schoodic Institute at Acadia National Park





PBS.org

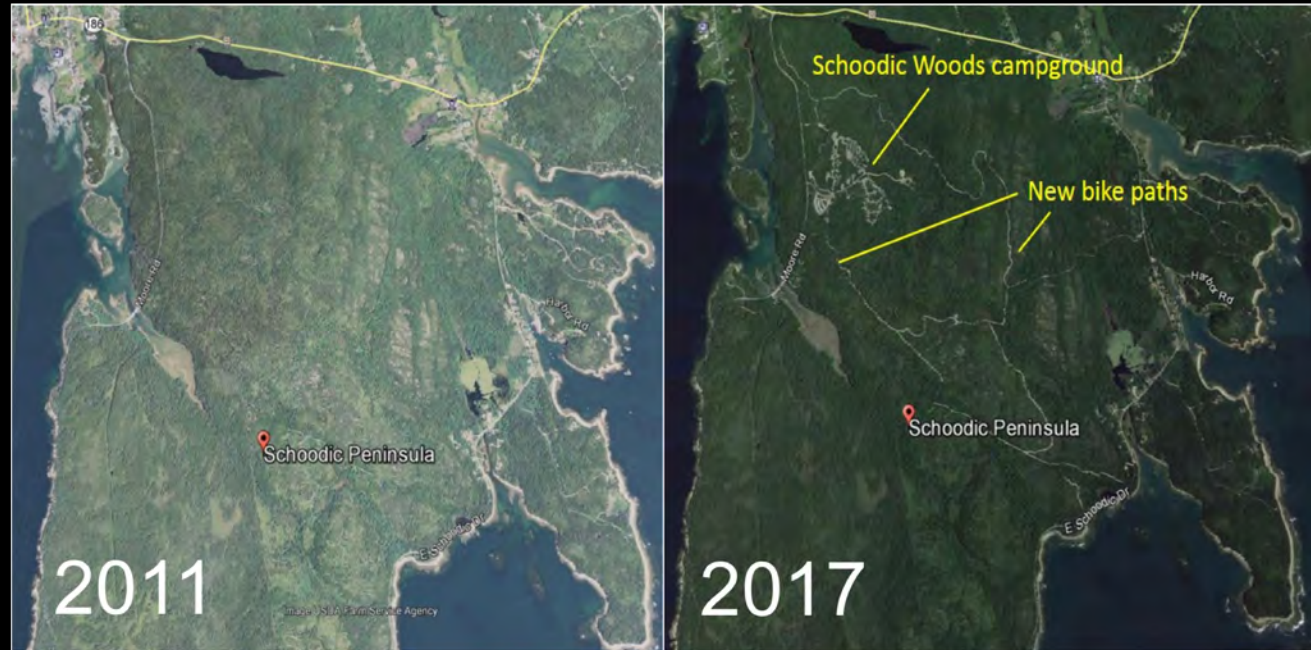


NPS



# New Developments opened on Schoodic Peninsula in 2015

- ~1400 acres land donation
- 97 campsites
- 7 miles of gravel bike paths
- 5 miles of hiking trails
- Visitor center with 100 car parking lot



# What are Ecosystem Services?

Economic benefits  
provided to humans by  
ecosystems



# Ecosystem services provide a framework for managing socio-ecological systems



## Our Mission

The National Park Service preserves unimpaired the natural and cultural resources and values of the National Park System for the enjoyment, education, and inspiration of this and future generations. The Park Service cooperates with partners to extend the benefits of natural and cultural resource conservation and outdoor recreation throughout this country and the world.

# Objectives

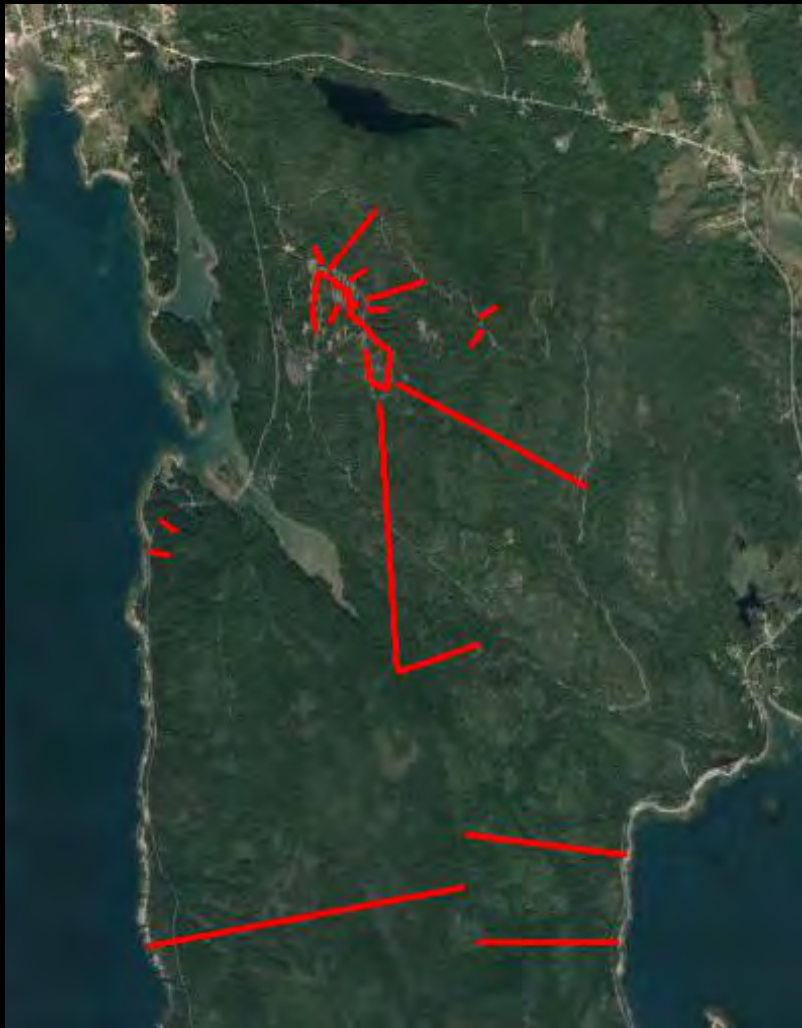
1. Quantify the value of ecosystem services provided by Schoodic district of ANP
2. Estimate the change in value of ecosystem services since development
3. Provide recommendations for future investment to grow local business, infrastructure

We focused on the biggest contributors in this system



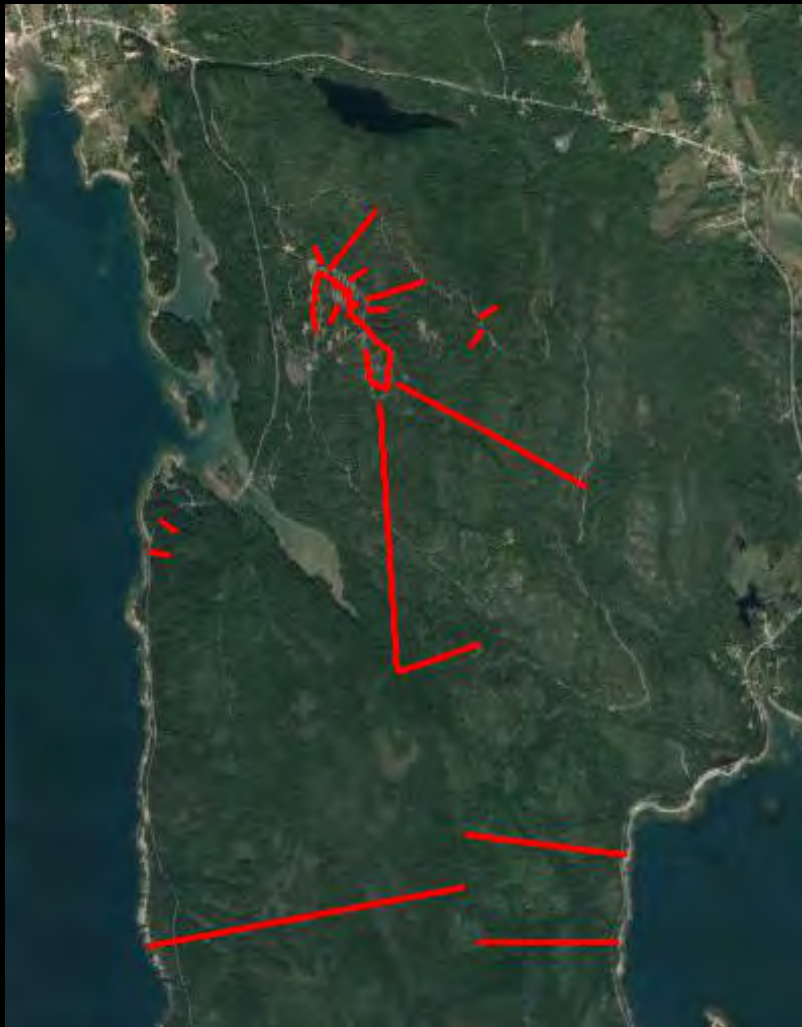


# Biodiversity





# Biodiversity

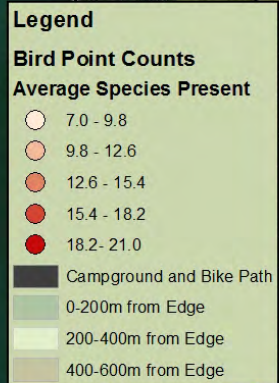


46 points  
4 visits May-  
July



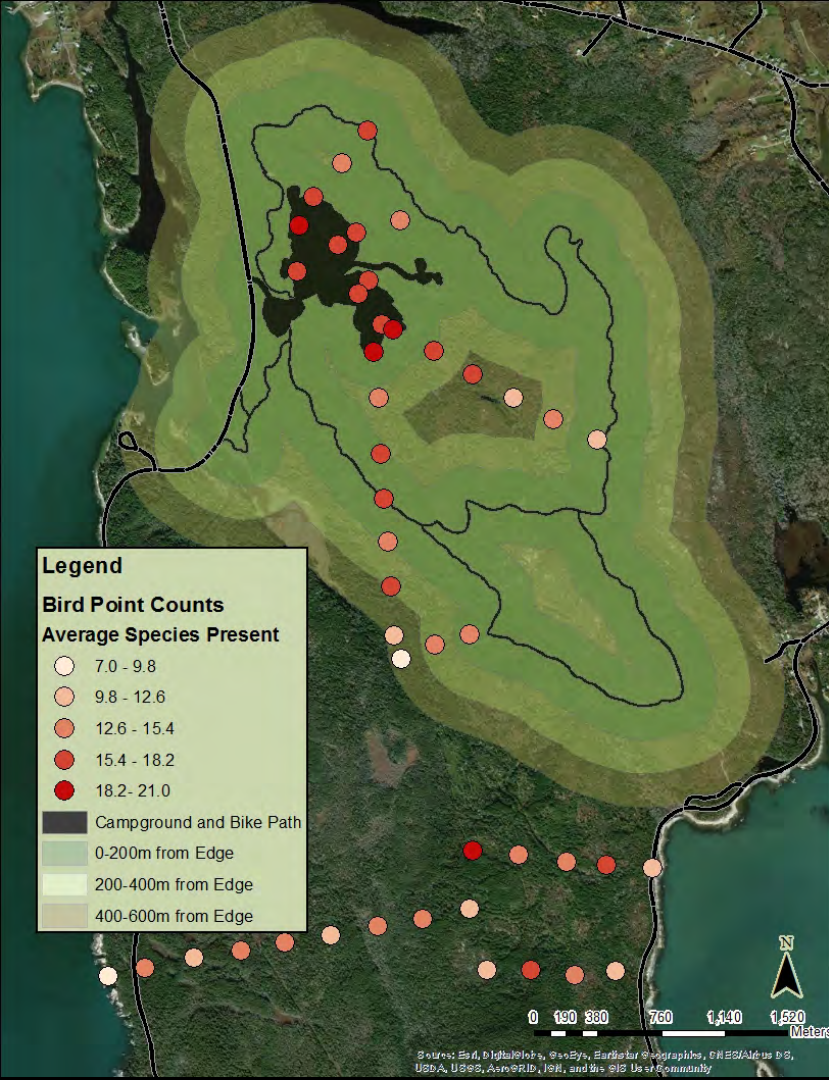
20 100m  
transects  
June-Sept.

# Biodiversity

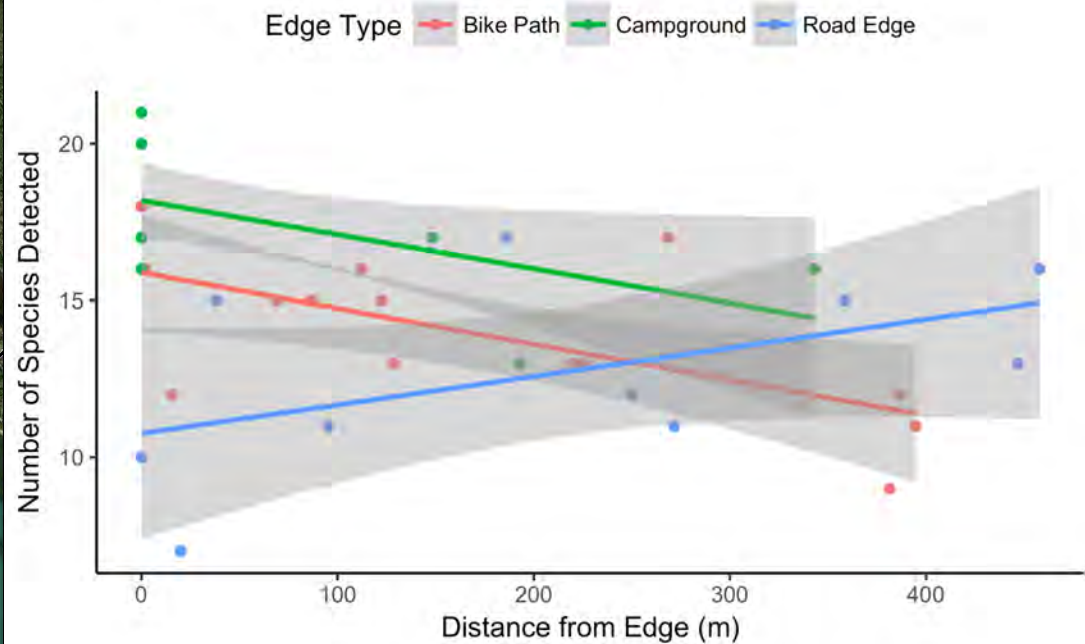




# Biodiversity



## Edge Effect on Species Diversity





# Carbon Storage



20 100m transects  
Surveyed saplings and trees  
June-September

# Recreation and Tourism

Surveyed across Schoodic Peninsula

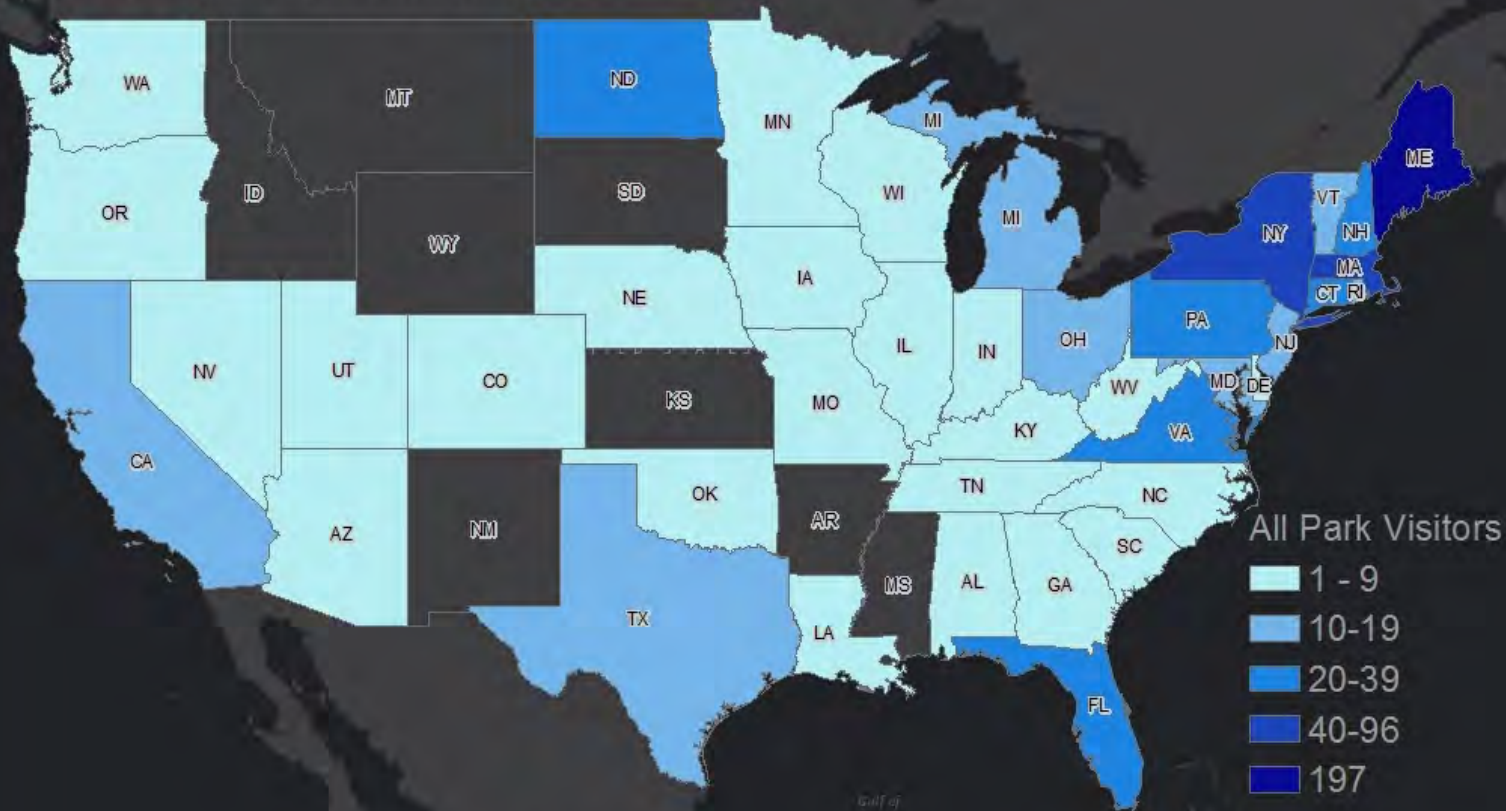
Visitor questionnaires



# Schoodic Park Visitation

790  
visitors  
surveyed

June-  
Sept.



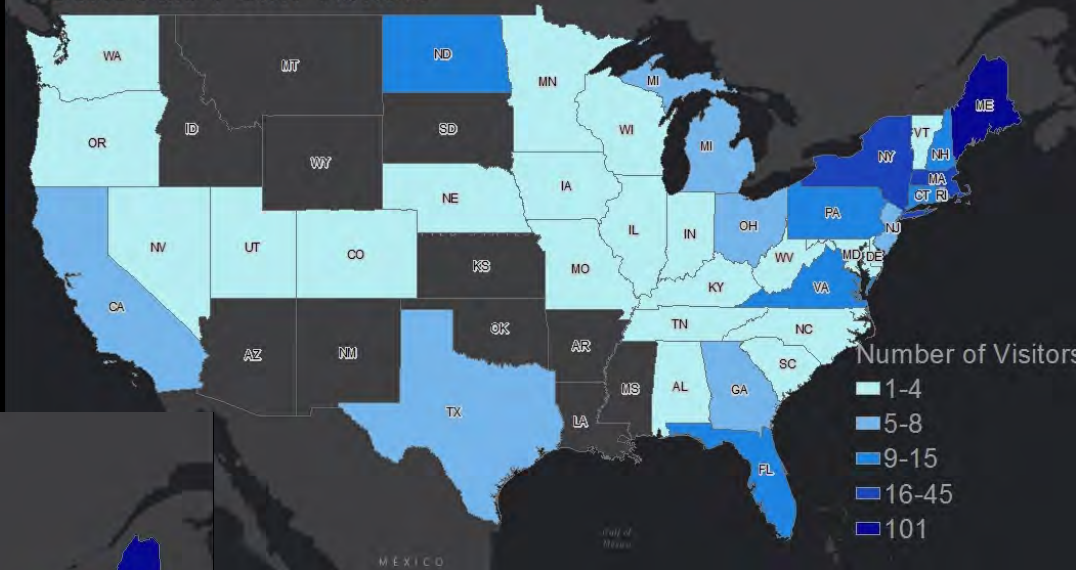
MEXICO

Gulf of Mexico

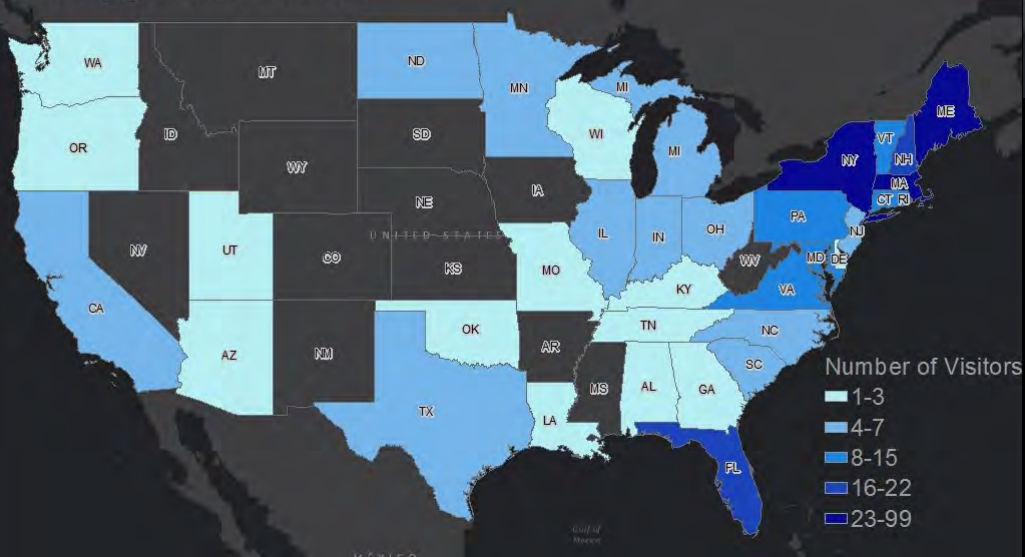
CUBA



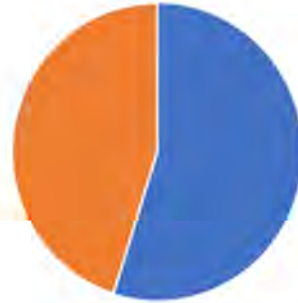
## Schoodic Point Visitors



## Campground Visitors



## Campground Visitors



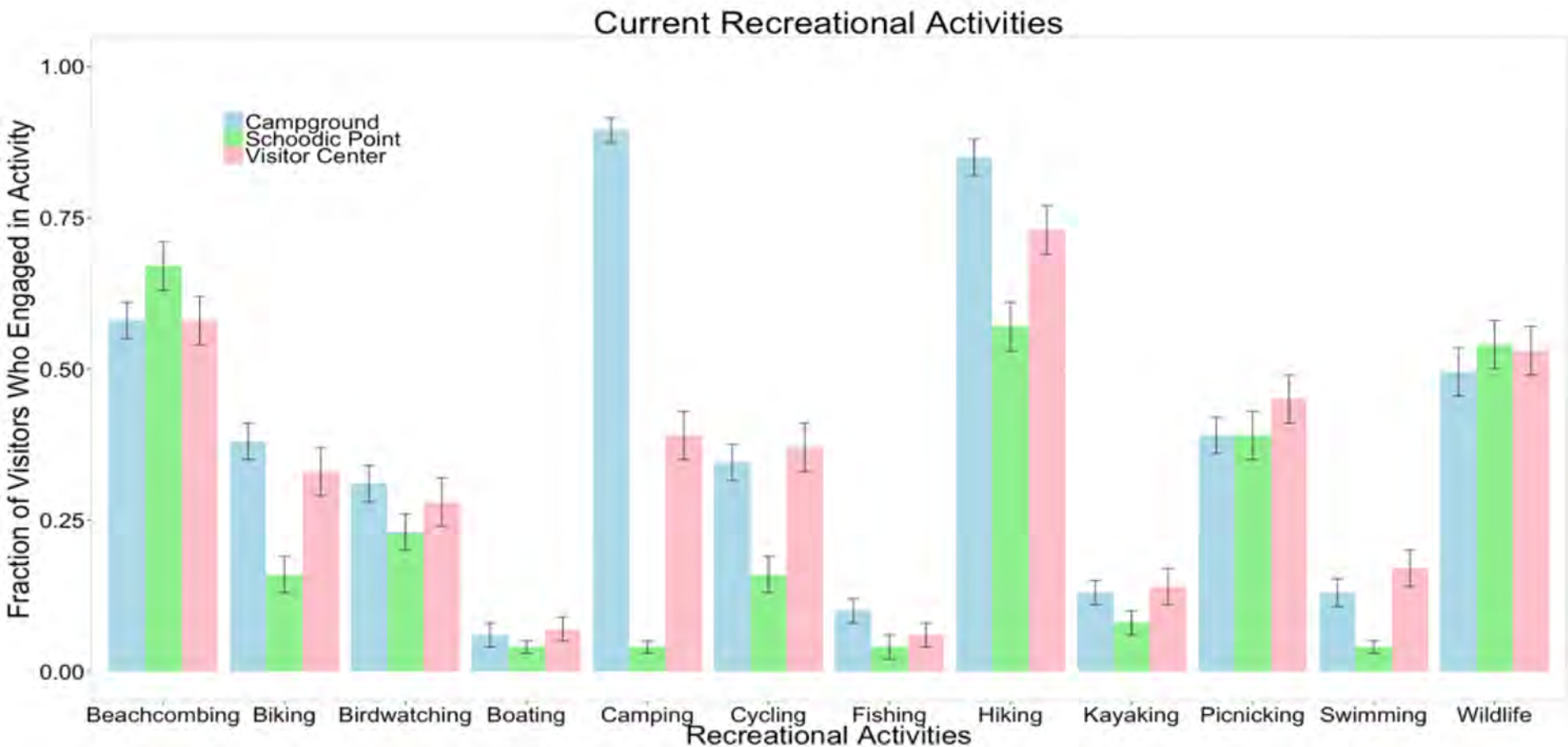
- Would Still Have Come to Schoodic Without Campground
- Wouldn't Have Come to Schoodic Without Campground

## Point Visitors



- Would Still Have Come to Schoodic Without Campground
- Wouldn't Have Come to Schoodic Without Campground

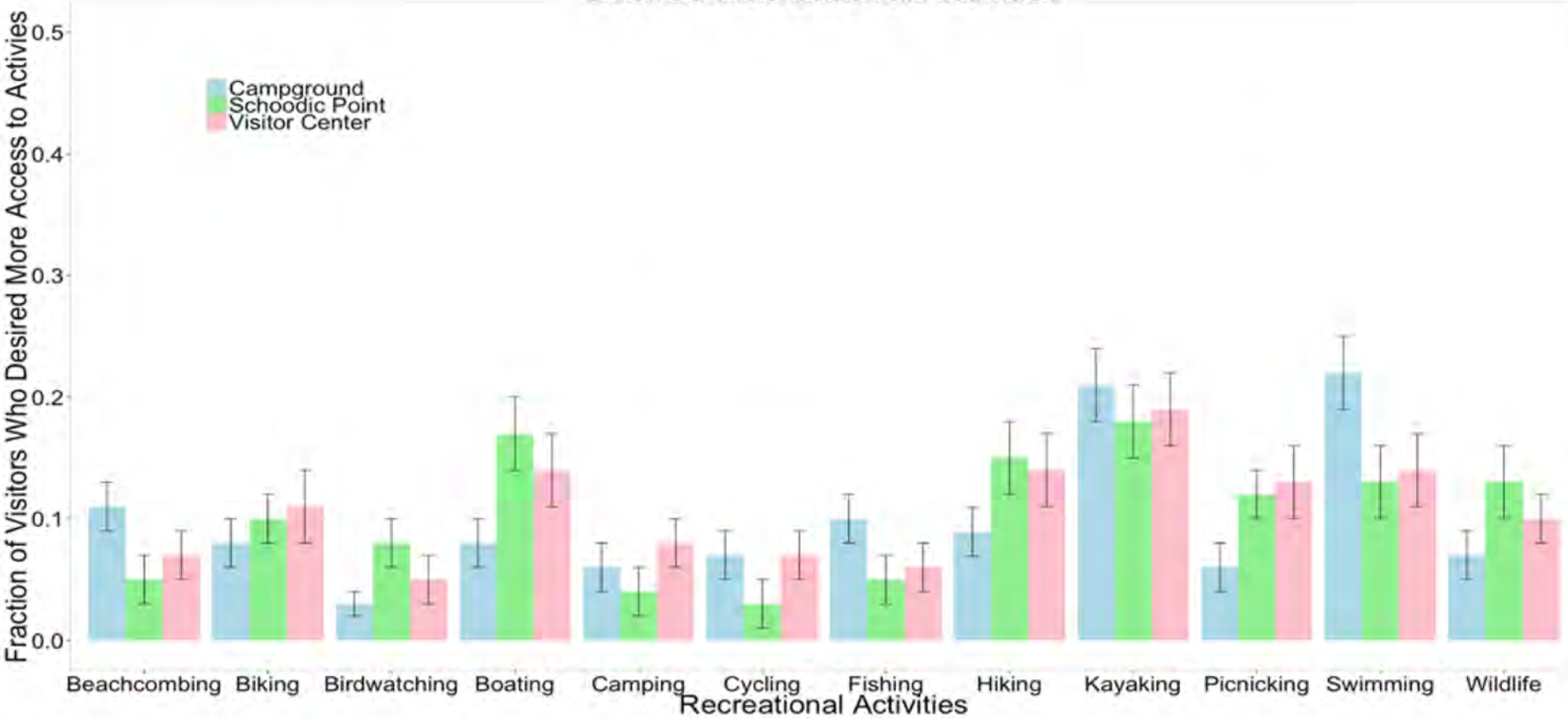
# Recreation and Tourism



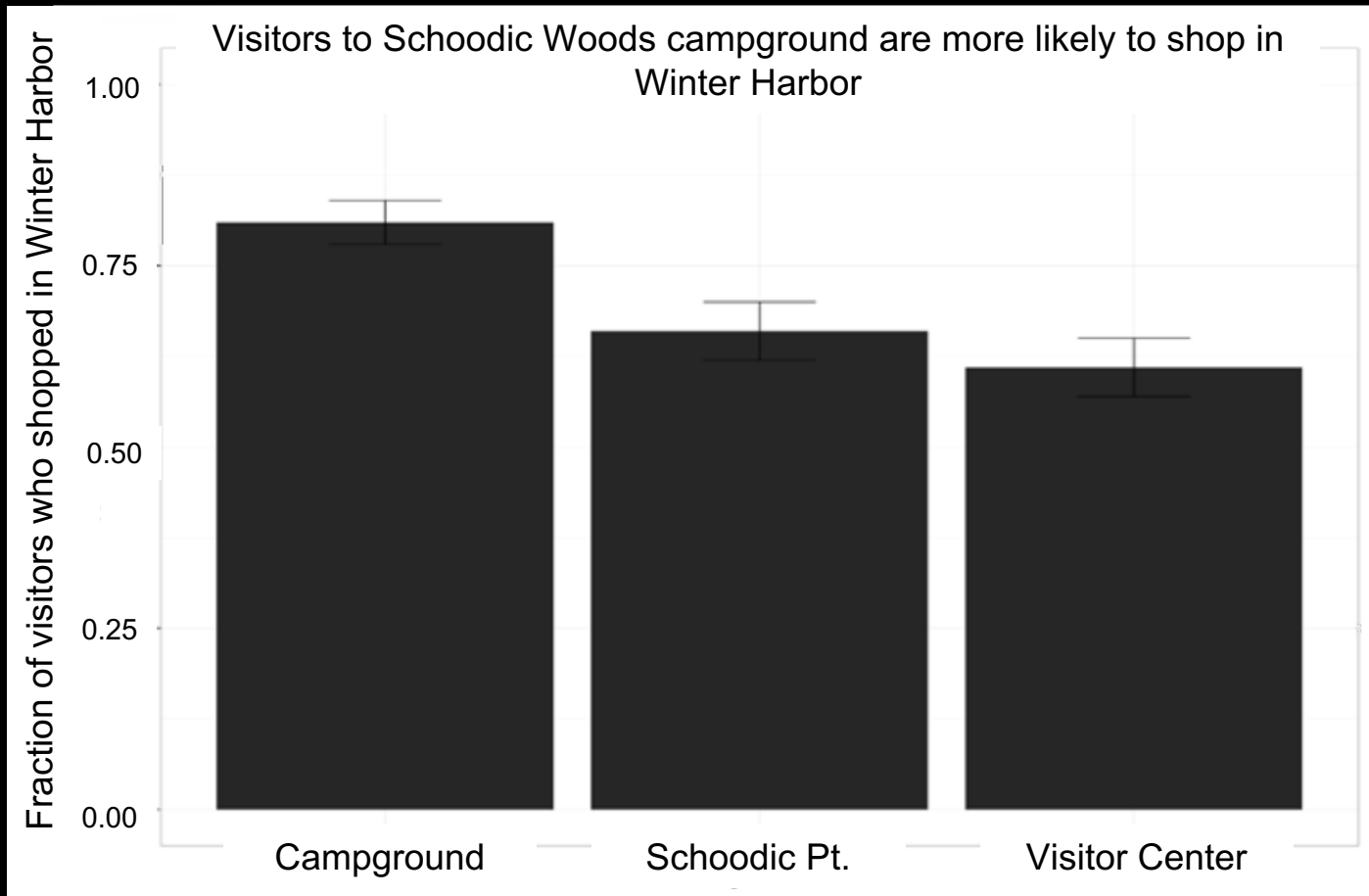


# Recreation and Tourism

Desired Recreational Activities



# Recreation and Tourism



# Recreation and Tourism

Semi-structured interviews of  
local business owners





# Recreation and Tourism

Semi-structured interviews of  
local business owners

15 interviews



# Integrating research and education, in parks, UMaine's EES 217



# Insights so far

Development at Schoodic has impacted an array of ecosystem services in complex ways

Results suggest effects reach beyond Acadia National Park and into local communities

Ultimately, this study will provide information for strategic growth that optimizes ecosystem services



# Moving forward

Complete analysis, write manuscript (spring 2018)

Present results (spring-summer 2018)

Expand to other portions of ANP?

For more information:



# Thank you to:

The University of Maine Research Reinvestment Fund for project funding and the Ecology and Environmental Sciences program for administrative support.

The Schoodic Institute, especially Emma Albee and Megan Moshier for providing logistical support.

Acadia National Park and the National Park Service, especially Abe Miller-Rushing, for land access and generous project support.

The students of EES 217 for help with data collection

Volunteers doing data entry: Matt Brewer, Julia Vieira, Emily Tomak, Abby Novak.





Questions?

