

# The Value of Preserving and Restoring Migratory Bird Habitat to Residents of the Pacific Flyway

A Mixed Methods  
Study



Marley Bonacquist-Currin (she/her)  
Department of Natural Resources and the Environment  
Cornell University  
ACES 2024



# Funding





# Land Acknowledgement

This research was conducted by researchers at Cornell University in Washington, Oregon, and California.

We acknowledge the painful past of genocide, and forced dispossession by the United States government and people, much of which formed our colonial perspective on conservation. We honor the ongoing connection of Indigenous Peoples to the lands and waters of Turtle Island, and their expertise in conservation spaces.

Ho-de-no-sau-nee-ga  
(Haudenosaunee)

Native Land Digital  
<https://native-land.ca/>





# FOREST SERVICE QUESTION

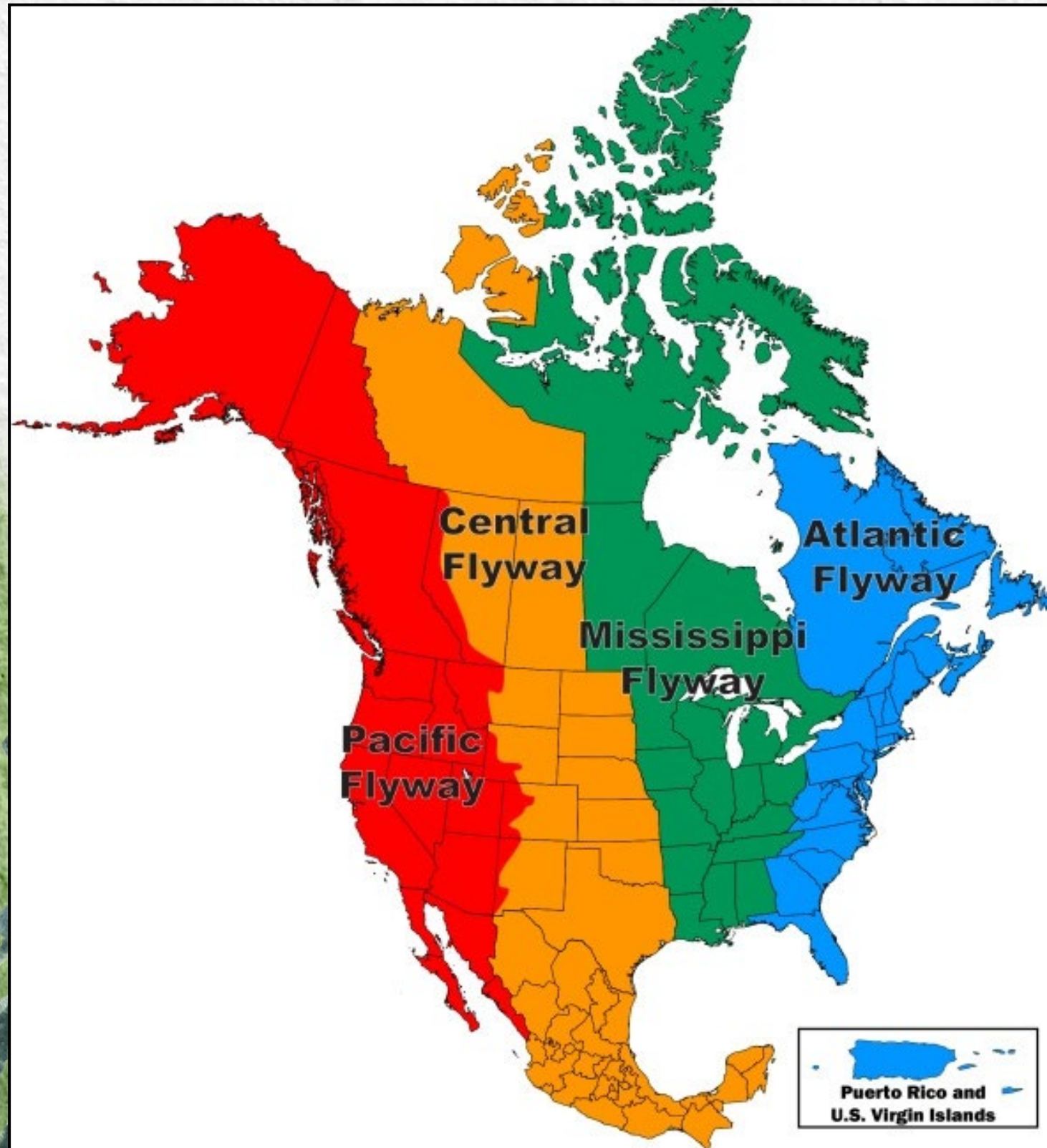
What is the  
**value of conserving land**  
along the Pacific Flyway  
(in the United States)  
to help increase  
migratory bird **biodiversity**  
and related **ecosystem**  
**services** ?





# Geographical Region

## Background - Grounding in the Land



Source: migratory-bird-program-administrative-flyways-state-and-province-map, USFWS, Public Domain, <https://www.fws.gov/media/migratory-bird-program-administrative-flyways-state-and-province-map>





# Components of the Whole

## RESEARCH FOCUS GROUP

### PARTICIPANTS NEEDED

#### WHAT:

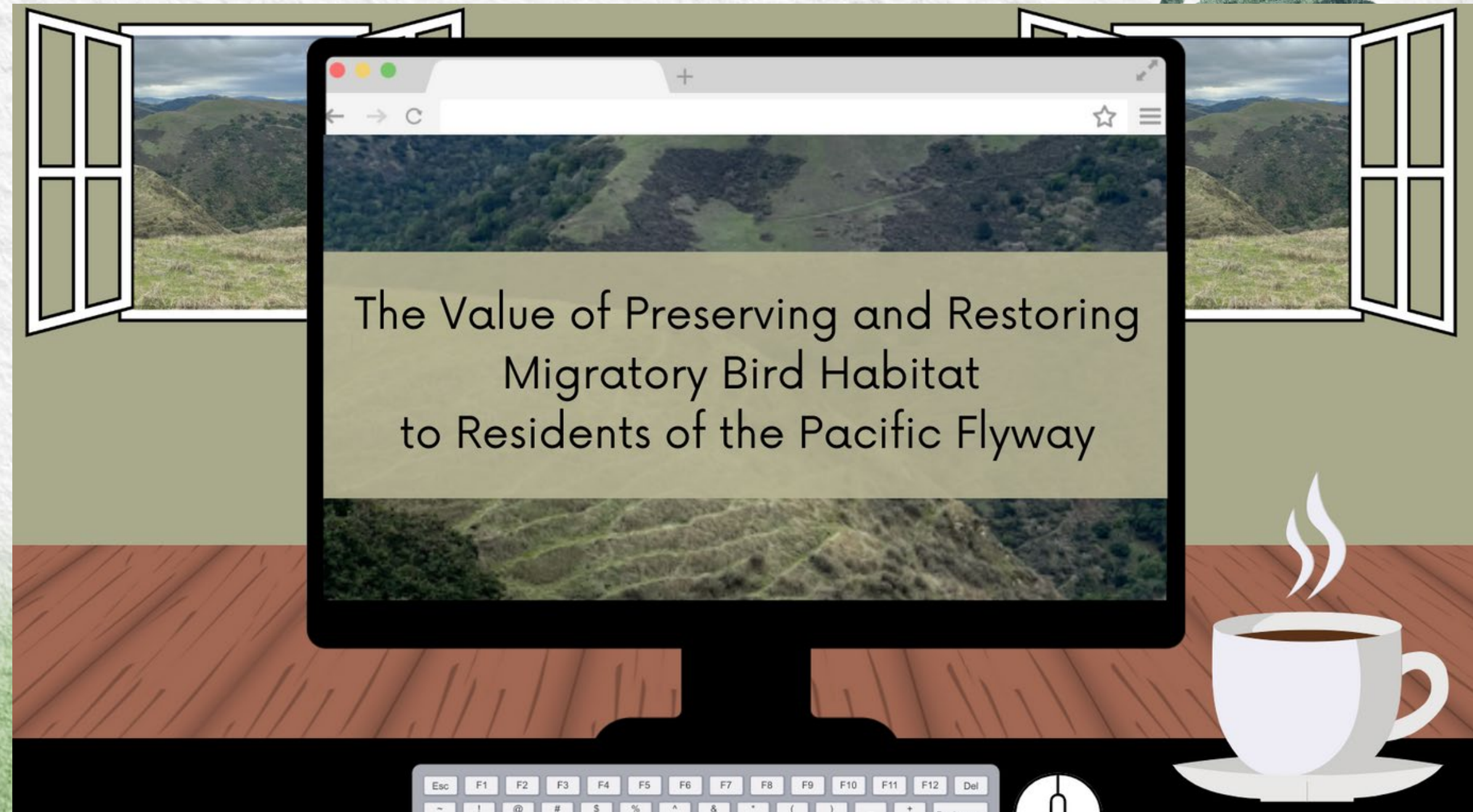
- 1-HOUR FOCUS GROUP
- FRI OCT. 4TH FROM 5:30-6:30PM @ MAXIE L PARKS COMMUNITY CENTER
- PROVIDE FEEDBACK ON ENVIRONMENTAL POLICY SURVEY FOR RESEARCH PURPOSES
- 10 PEOPLE NEEDED

To Sign-Up Now:  
Scan the QR Code or email/text)

mb2572@cornell.edu  
(518)709-3389

No environmental policy experience/background knowledge needed. Must be 18+ to participate and a resident of Fresno.

COMMITMENT:  
1-HR IN PERSON  
COMPENSATION:  
\$50





# FOCUS GROUPS

## MOTIVATION & RESEARCH QUESTION

### Research Question

What is the **value of conserving land** along the Pacific Flyway (in the United States) to help increase migratory bird **biodiversity** and related **ecosystem services** ?

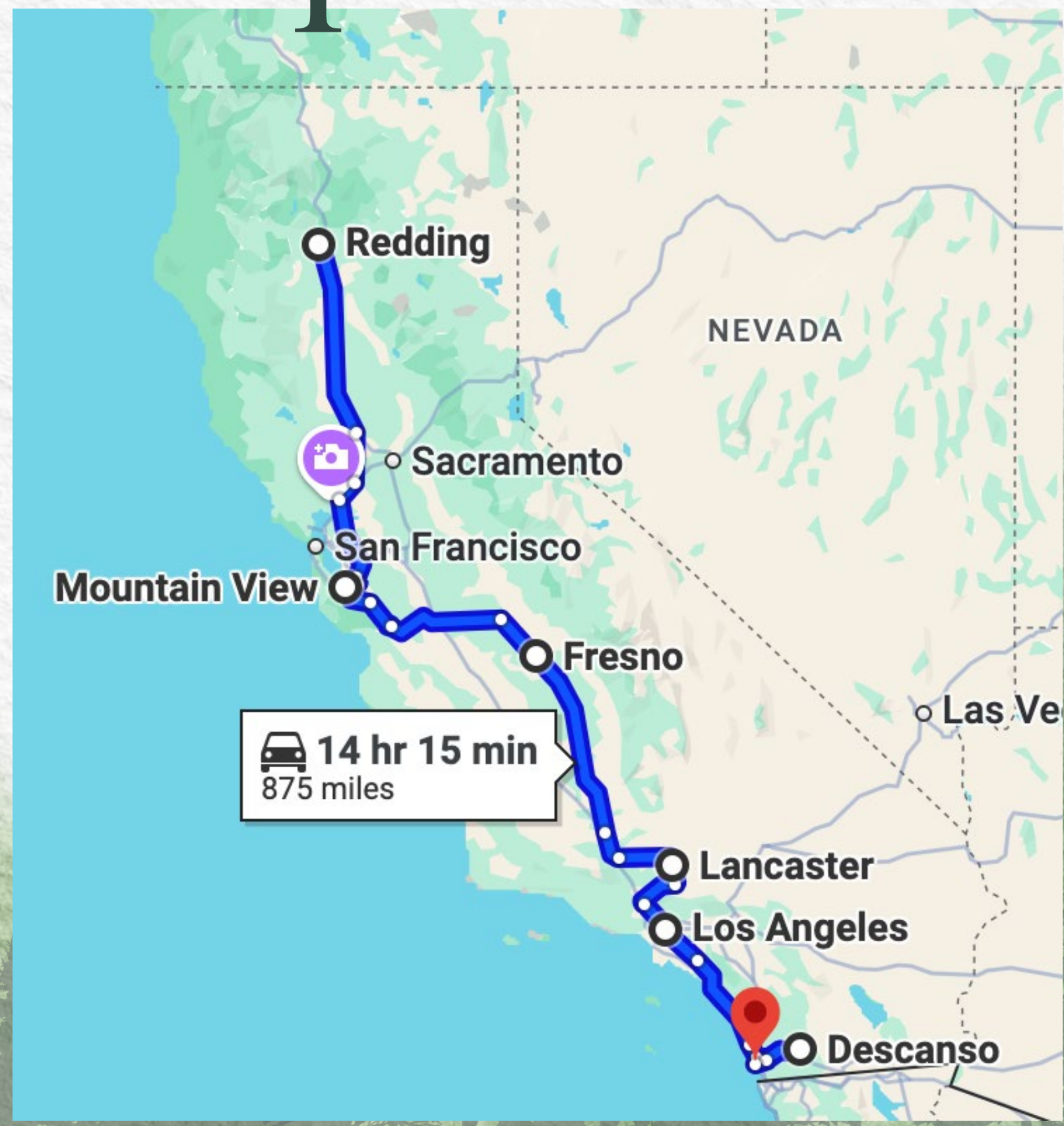
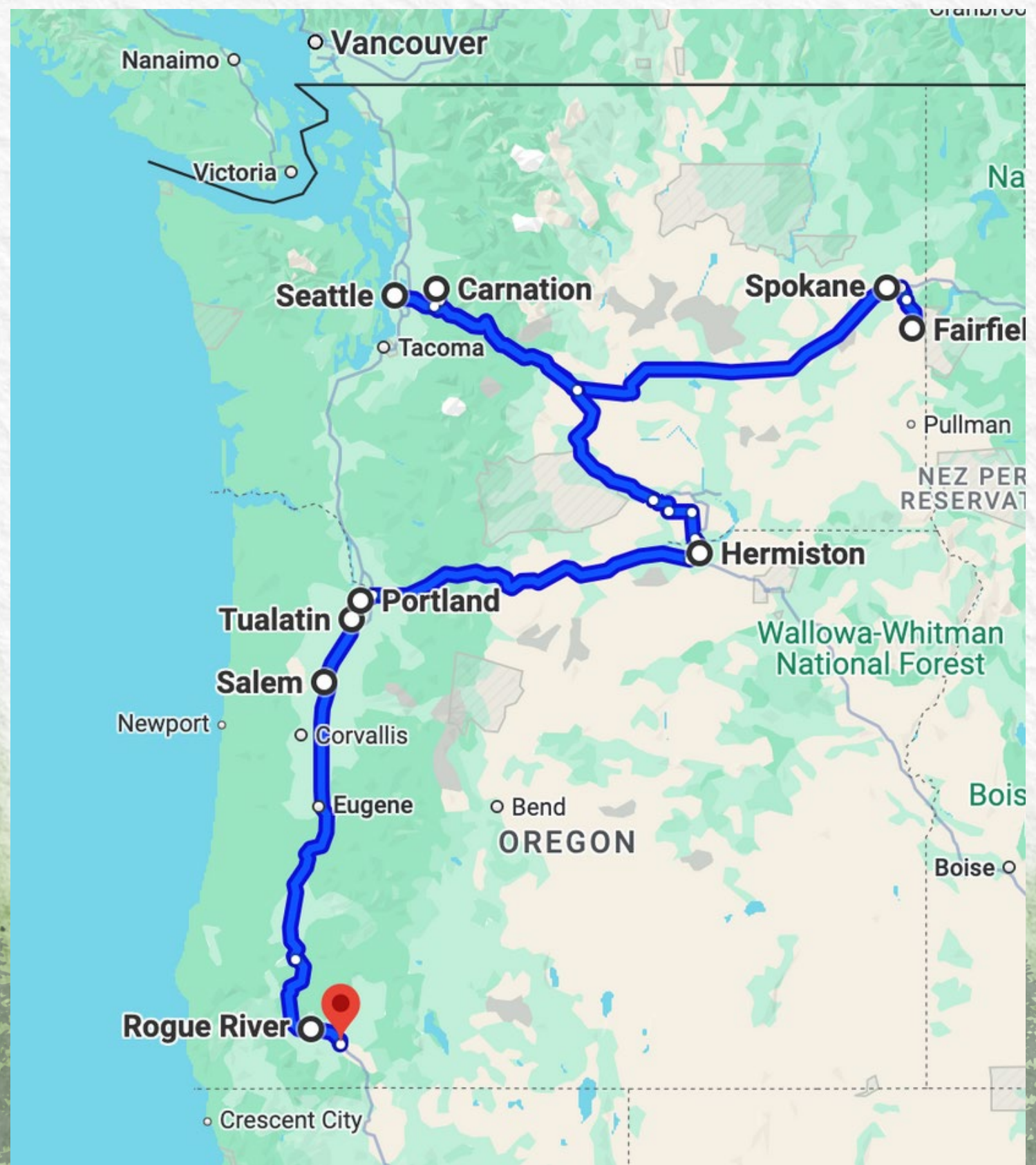
### Key Concept

To gather people's stories about their relationships with and on the land and their sense of place.





# Focus Groups





## Focus Groups

### Locations

WA, OR, Northern CA, Southern CA  
4/area: Two cities, two municipalities <2500

### Sampling

Purposive sampling: Location, specific host space, 18+, US citizen, eligible to vote  
Convenience sampling: Participants sign up  
Advertised via flyer

### Dual Purpose

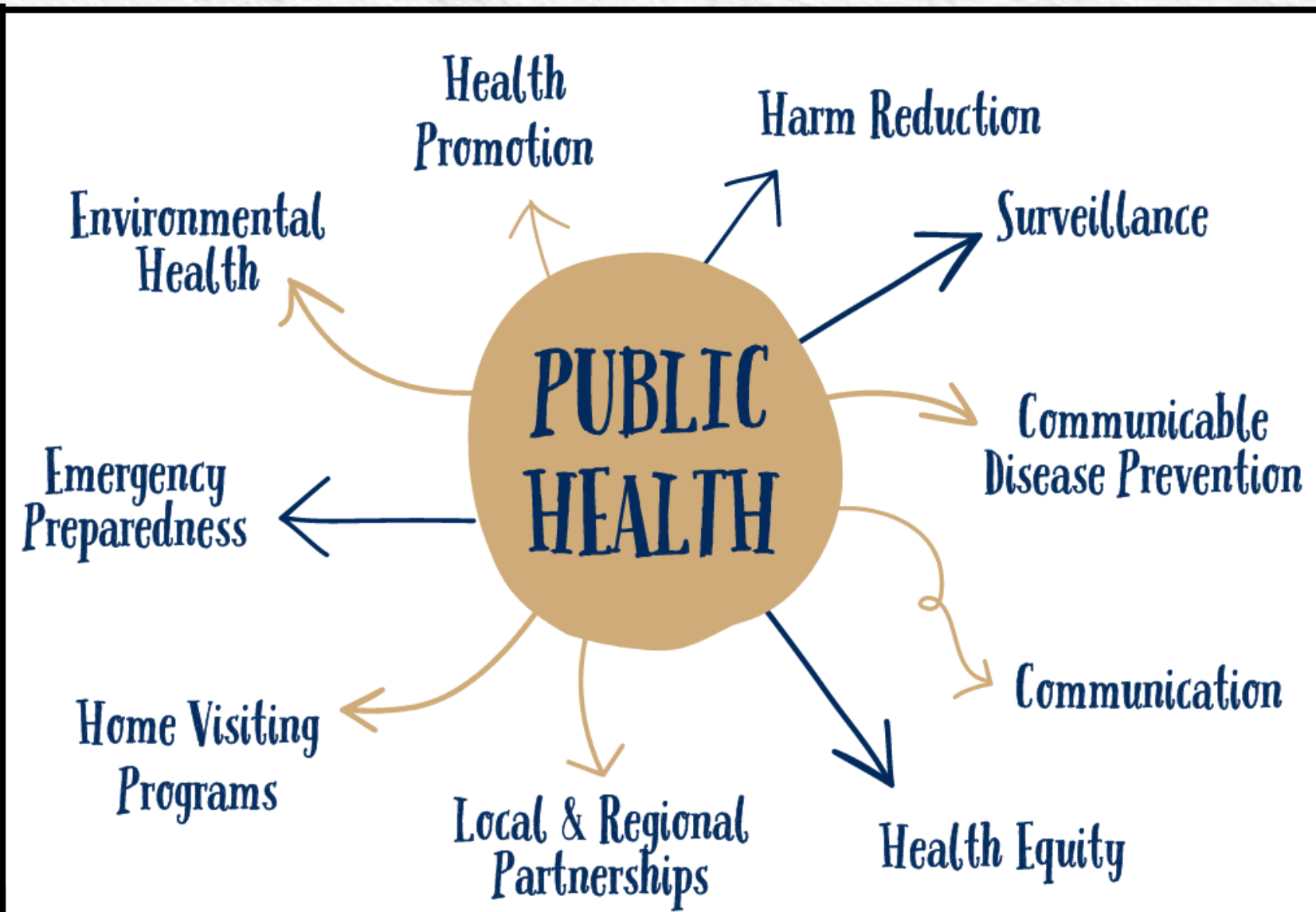
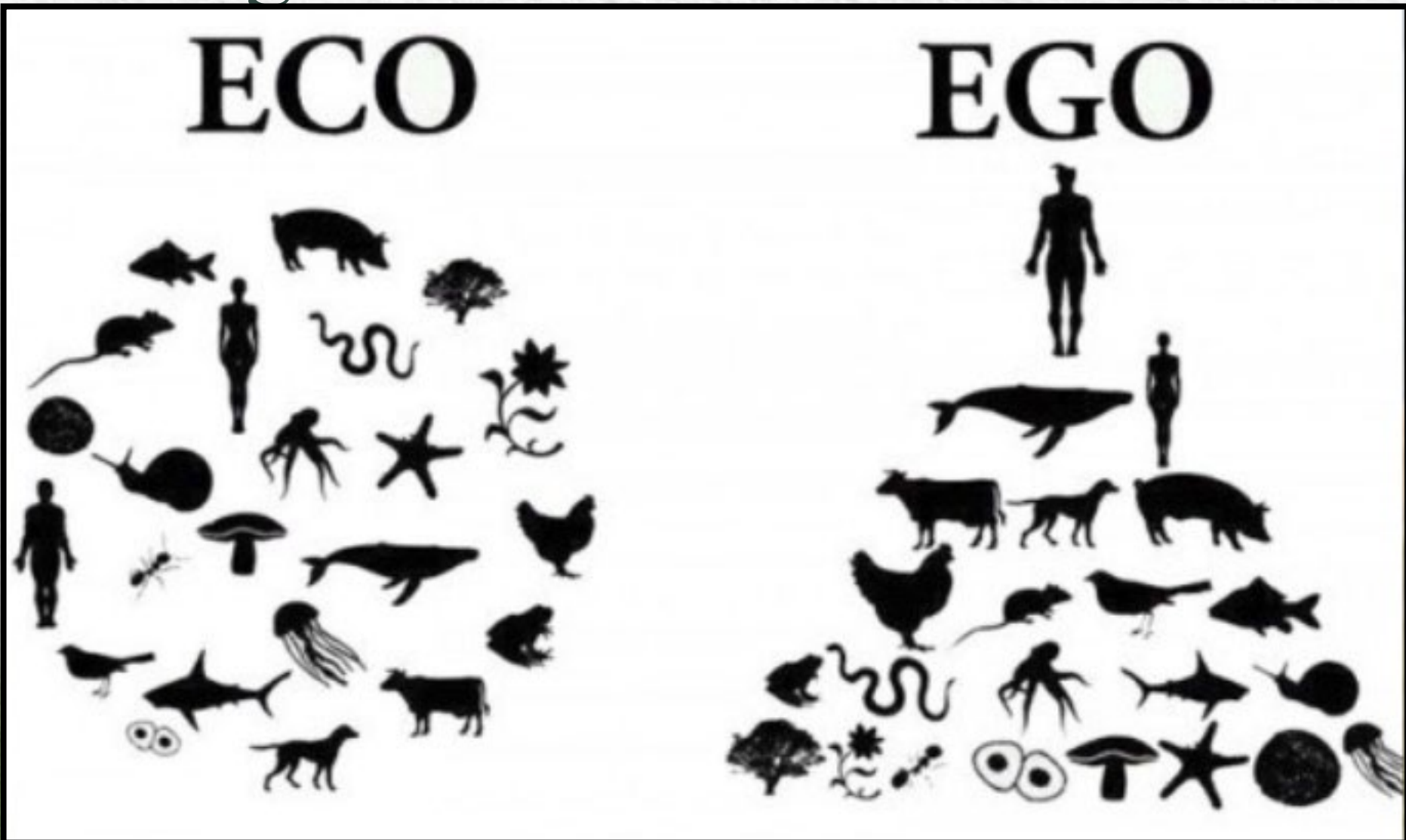
1. Feedback on the survey questionnaire
2. Thematic questions surrounding sense of place, relationship to management agencies, and environmental priorities

### Host Site

- Accessible
- Centrally located
- Trusted space
- Conditions when multiple were available:
  - Free, or has free options
  - Activities for kids and seniors
  - Offers a summer camp
  - Not under construction
  - Has an indoor space
  - Has a gym and weight room, as well as a community room
  - Tried not to pick parks/places that were specific to just outdoor recreation
  - Tried not to pick community centers that had no recreation spaces
- When no community center was available, I selected a library or municipal hall



# Findings

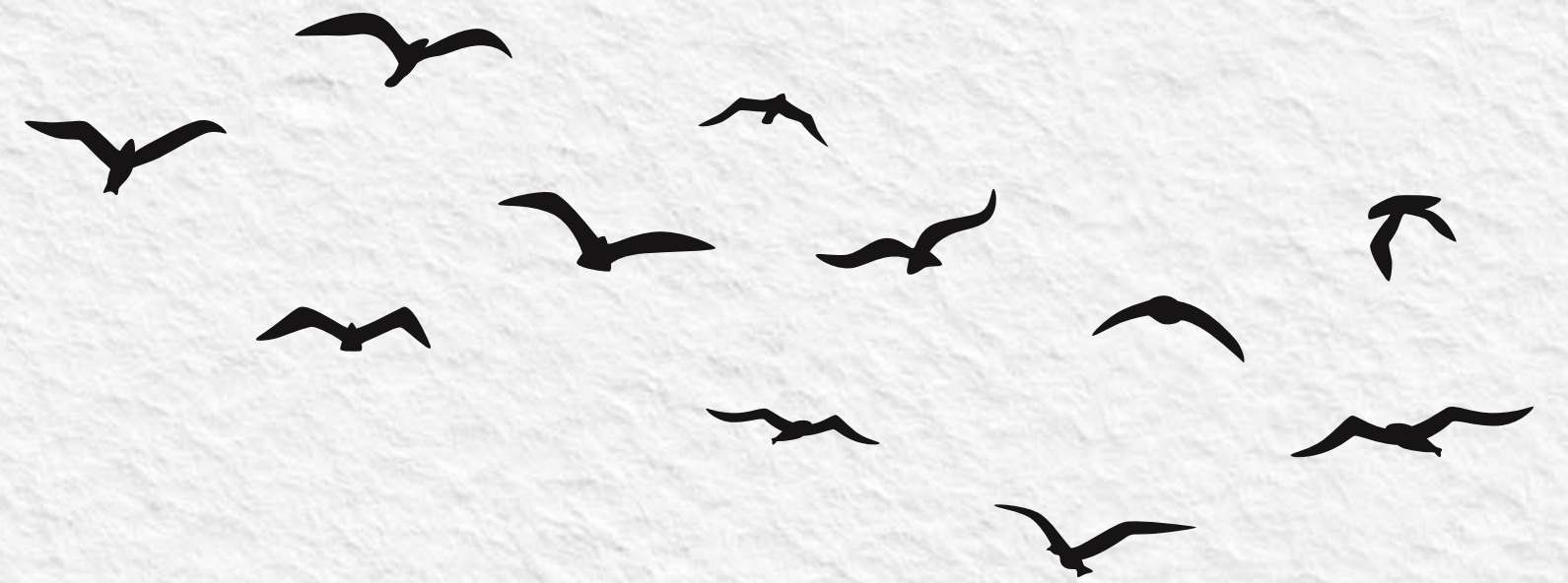
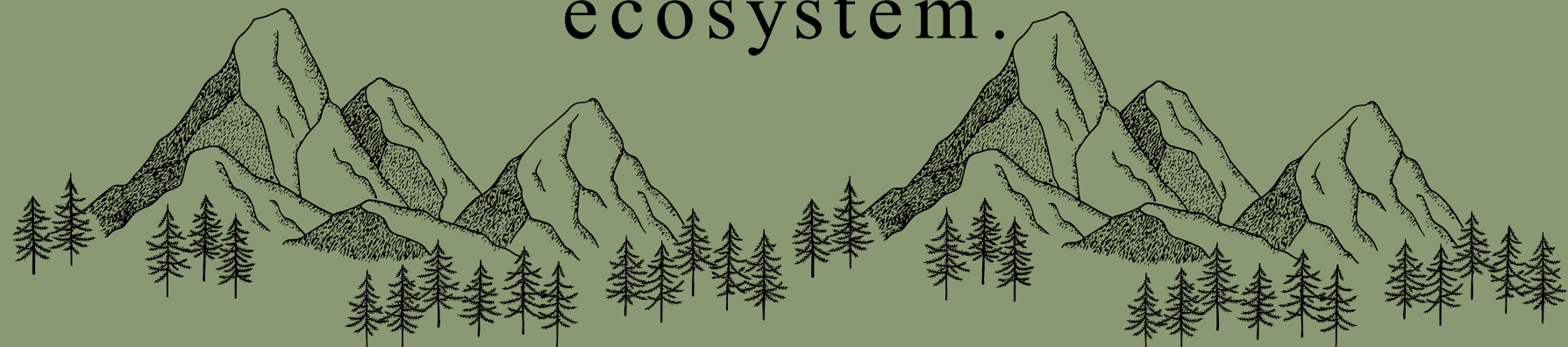




# Main Takeaway

On the whole, people view the environment as part of their home.

They resent limitations to their access (lack in cities, limits on outside of), and feel that current approaches to conservation remove humans from the ecosystem.



“The word ecology is derived from the Greek ‘oikos,’ the word for home.”

-Robin Wall Kimmerer



# SURVEY MOTIVATION & RESEARCH QUESTION

## Research Question

What is the **value of conserving land** along the Pacific Flyway (in the United States) to help increase migratory bird **biodiversity** and related **ecosystem services** ?

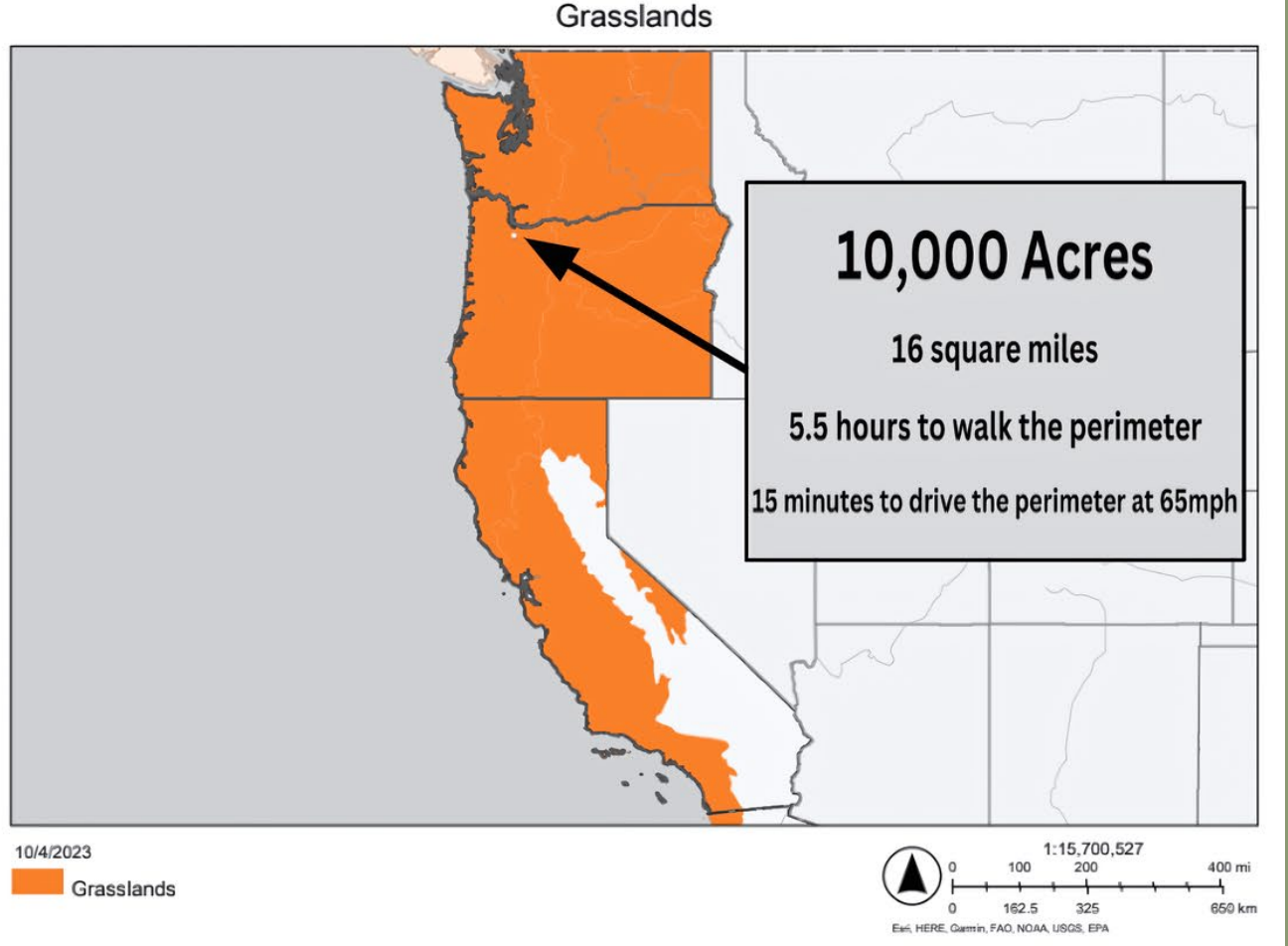
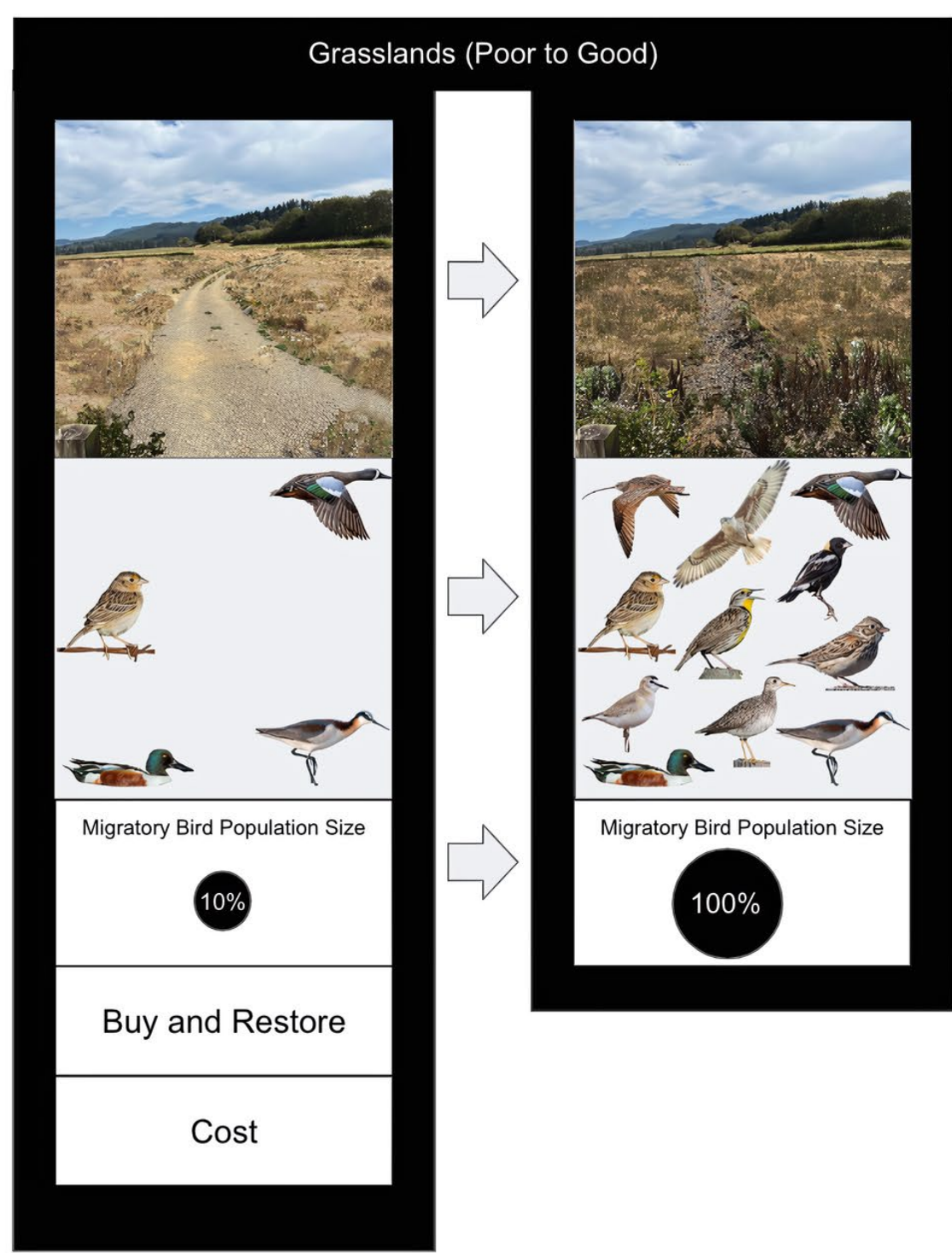
## Key Concept

To present **trade -offs** between different **habitat conservation options**.  
These decisions will impact **habitat management, migratory bird species, and ecosystem services**.



# The Good

- 6 Habitat Types
  - Conifer Forests
  - Ponderosa Pine Forests
  - Oak and Prairie
  - Sagebrush
  - Grasslands
  - Coastal Wetlands
- Biodiversity
  - Species richness
  - Bird abundance
- Quality
  - Poor
  - Good
- Size
- Location
  - Bird Conservation Regions





# Valuing 'The Bundle'

The land that will be conserved, with the migratory birds that use the land as stopover sites, and the ecosystem services those birds provide.

Conifer Forests (Poor to Good)

Migratory Bird Population Size  
10%

Buy and Restore

Cost

Sagebrush (Poor to Good)

Migratory Bird Population Size  
10%

Buy and Restore

Cost

Ponderosa Pine (Poor to Good)

Migratory Bird Population Size  
10%

Buy and Restore

Cost



# Valuing "The Bundle"

Coastal Wetlands (Poor to Good)






Migratory Bird Population Size

10%

Buy and Restore

Cost

Oak and Prairie (Poor to Good)



Migratory Bird Population Size

10%

Buy and Restore

Cost



# Survey Results

## Conifer Forest

Good (Maintain): 26 no, 43 yes (62% yes)  
Poor to Good (restore): 22 no, 46 yes (68% yes)

## Grasslands

Good (Maintain): 28 no, 39 yes (58% yes)  
Poor to Good (restore): 26 no, 43 yes (62% yes)

## Coastal Wetlands

Good (Maintain): 26 no, 42 yes (62% yes)  
Poor to Good (restore): 19 no, 49 yes (72% yes)

## Conifer Forests (maintain good)

Count: 60

Average: \$105.38

Median: \$100

Maximum: \$1000

Minimum: \$0

Range: \$1000



Thank you For your knowledge and expertise!

Dr. Catherine Kling, Cornell University  
Dr. Sonja Kolstoe, USDA FS PNW Research Station  
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Dr. Amanda Rodewald, Cornell Lab of Ornithology  
Dr. Tina Phillips, Cornell Lab of Ornithology  
Dr. Jack Zinda, Cornell University  
Ecosystem Services Lab Guild  
Conservation Center for Social Sciences  
All of our amazing focus group participants!  
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Dr. José Sánchez, USDA FS Region 5  
Dr. Angela White, USDA FS PSW Research Station  
USDA FS Region 6  
Deanna Williams - USDA FS Region 6  
Jamie Ratliff - USDA FS Region 6  
Barbara Garcia - USDA FS Region 6  
Joshua Chapman - USDA FS Region 6



Thank you to Our Funders!



Questions?

[mb2572@cornell.edu](mailto:mb2572@cornell.edu)