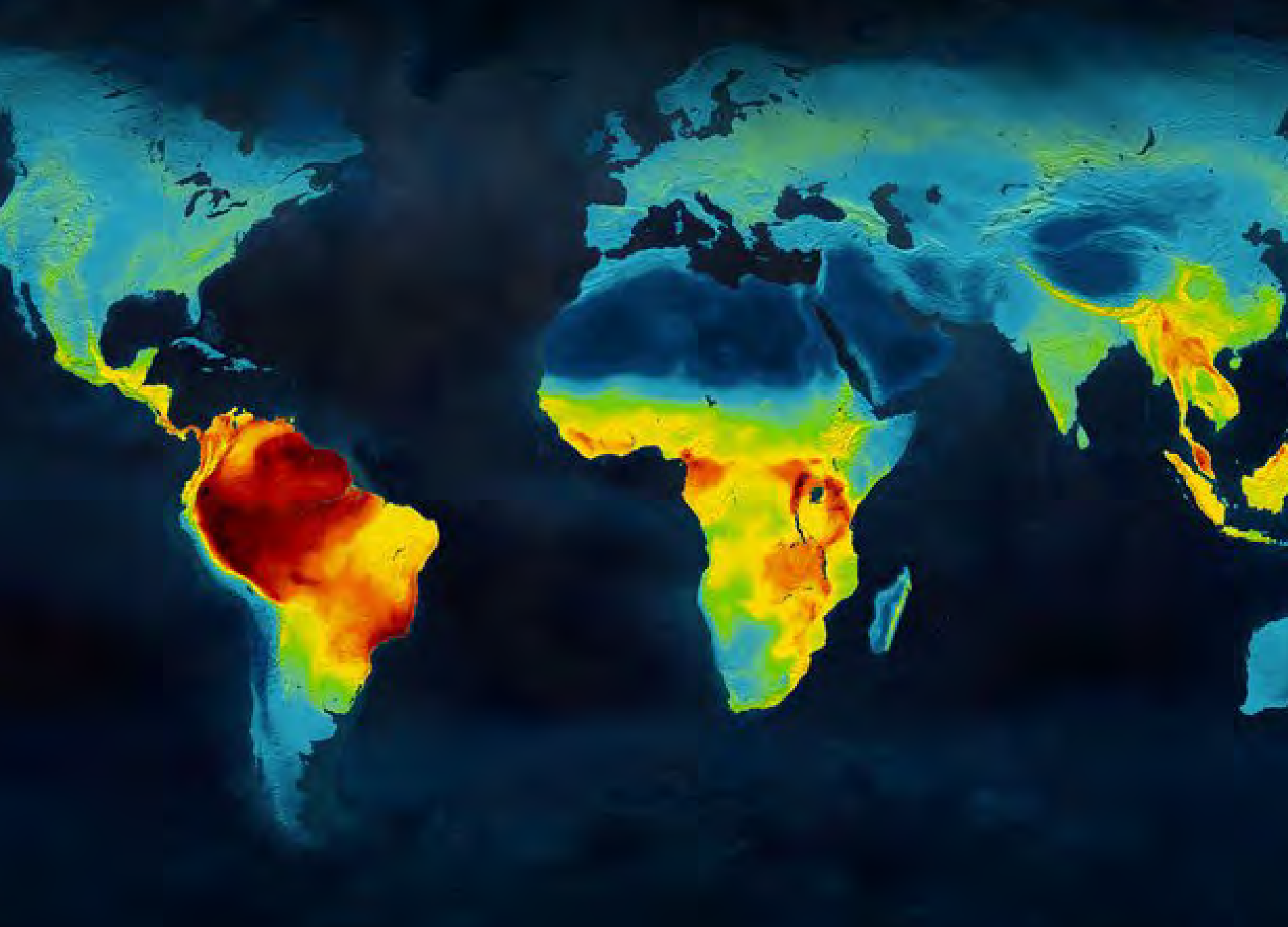
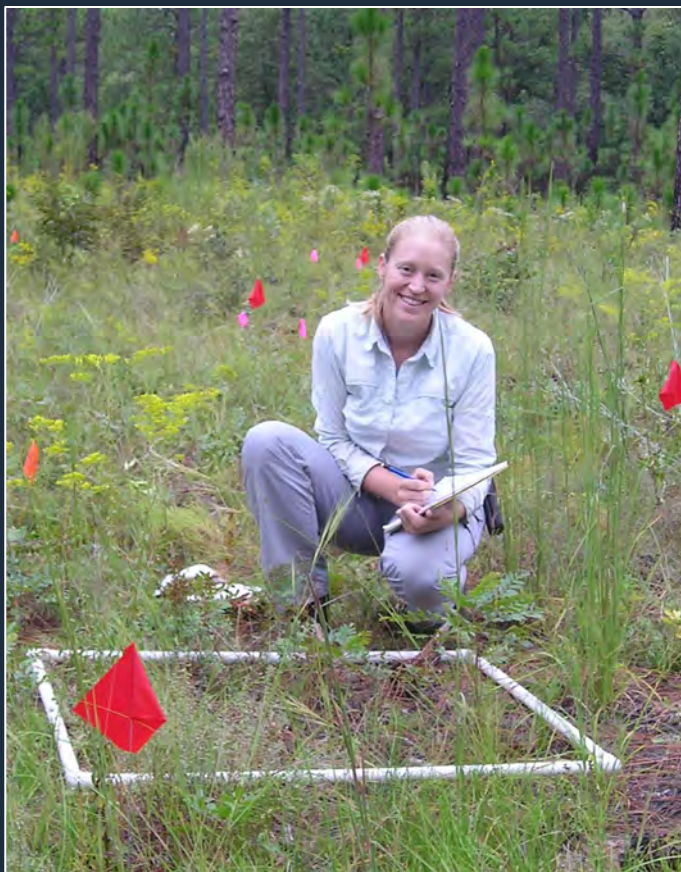


Local and landscape influences on plant community dynamics in a changing world

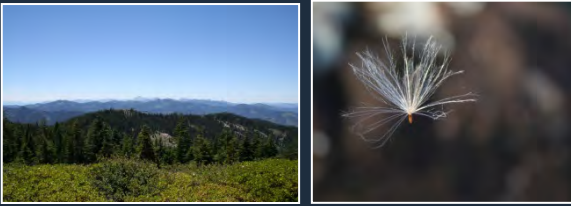


Ellen I. Damschen
University of Wisconsin-Madison





Landscape movement



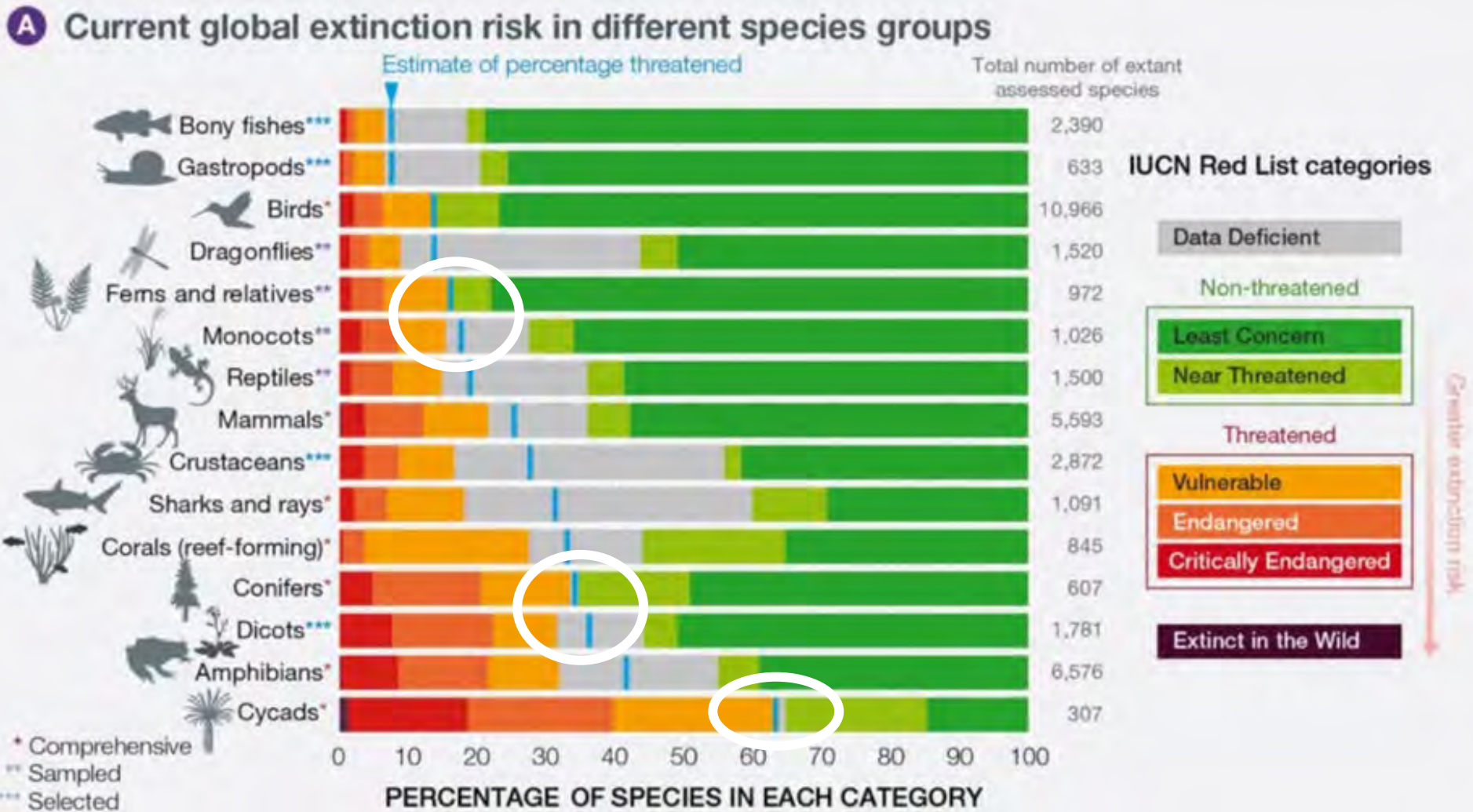
Local environment

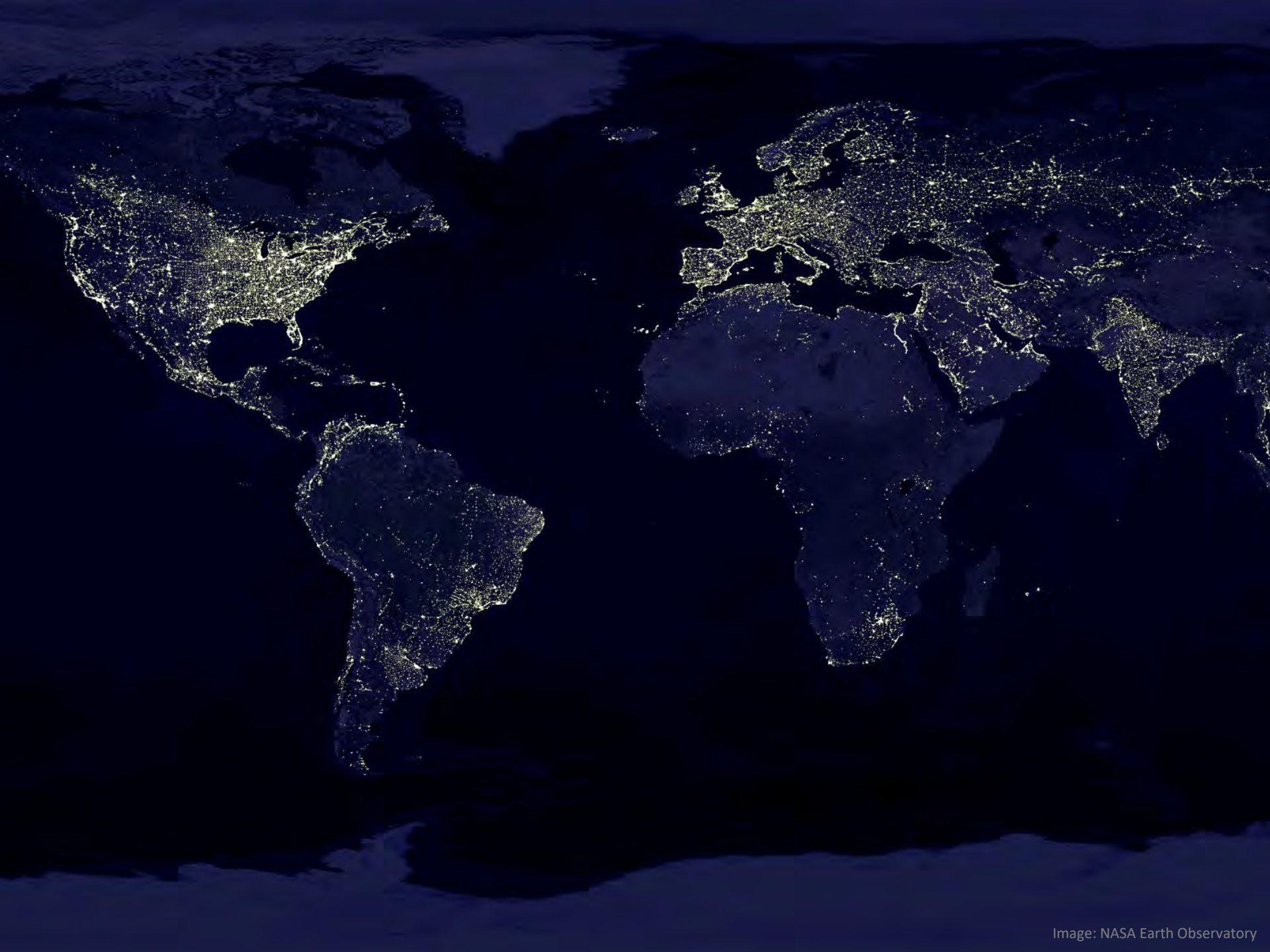


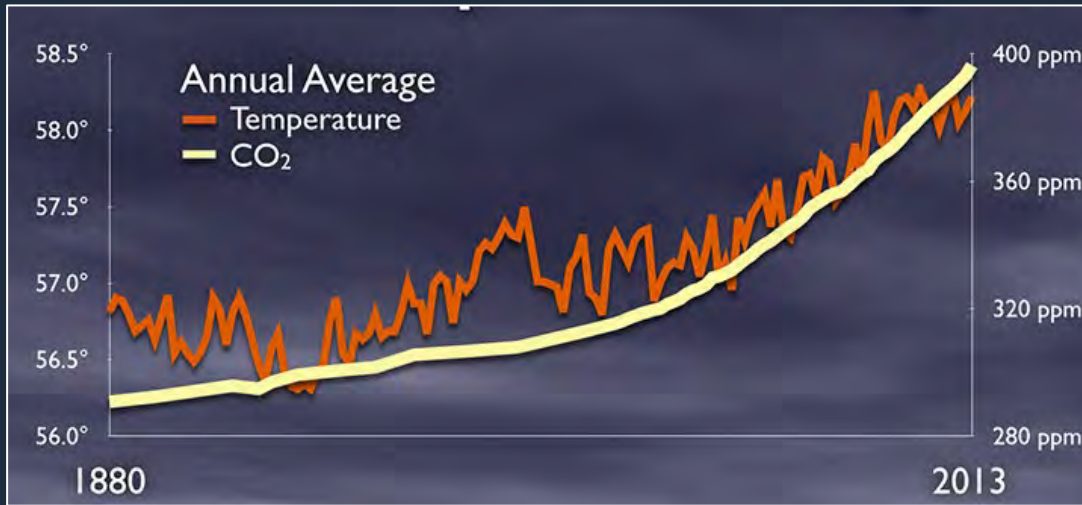
Species diversity



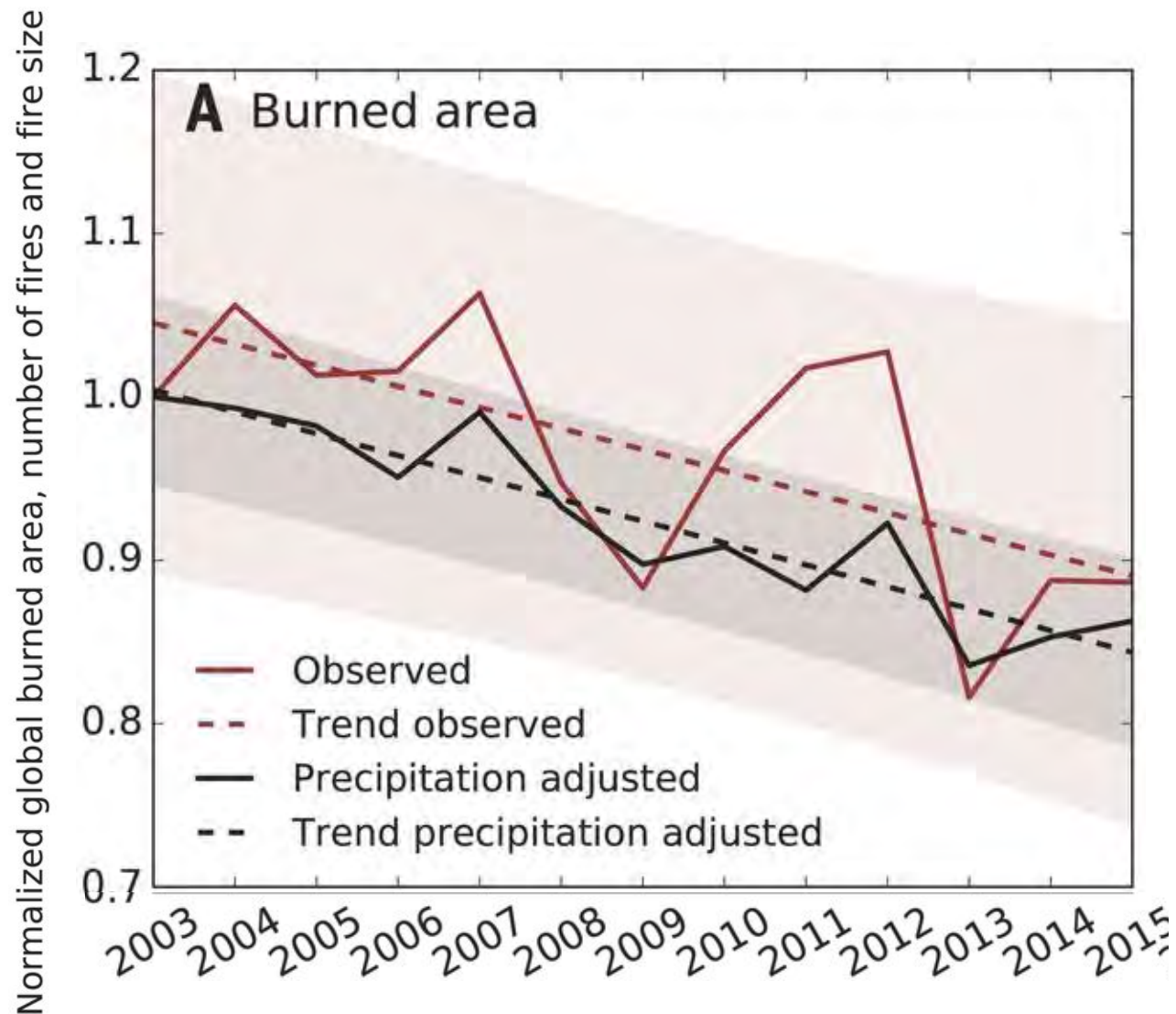
Loss of biodiversity







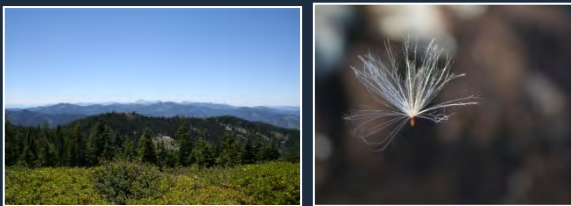
Decreased fire



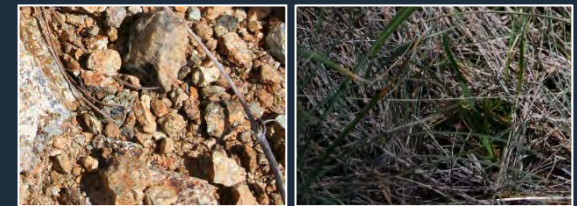
Global changes



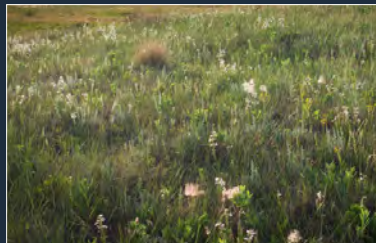
Landscape movement



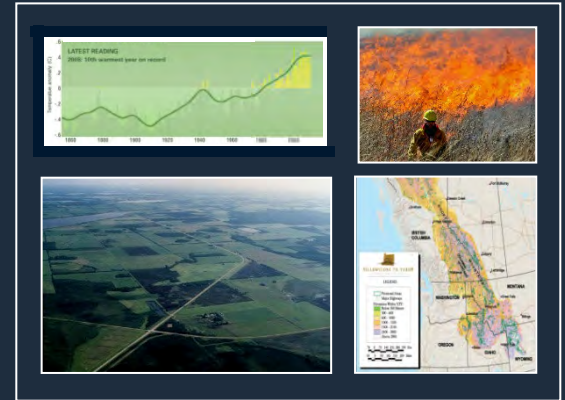
Local environment



Species diversity

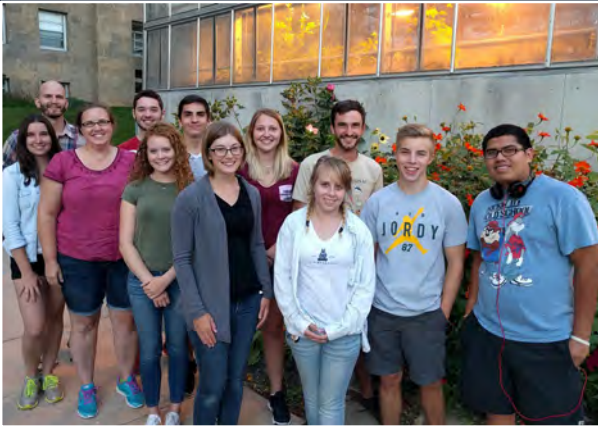


Talk outline



1. Approach and study systems
2. How does landscape connectivity affect long-term community dynamics?
3. How do landscape and local factors affect long-term change?

The Damschen Lab and Collaborators



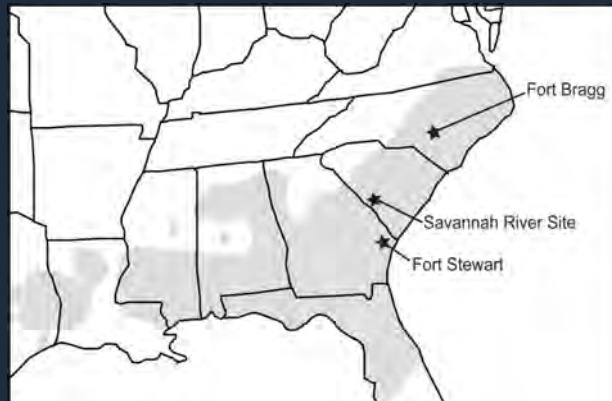
Talk outline



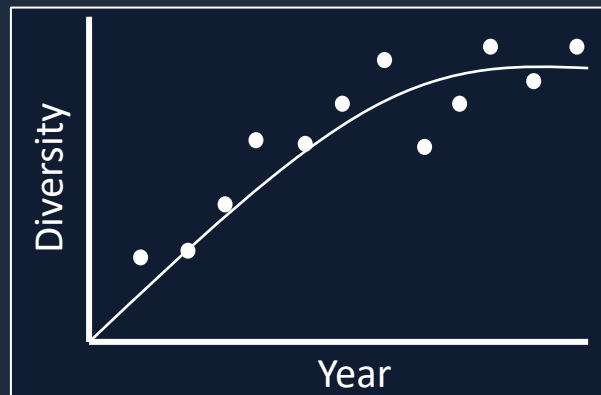
1. Approach and study systems
2. How does landscape connectivity affect long-term community dynamics?
3. How do landscape and local factors affect long-term change?

Approach

Large-scale



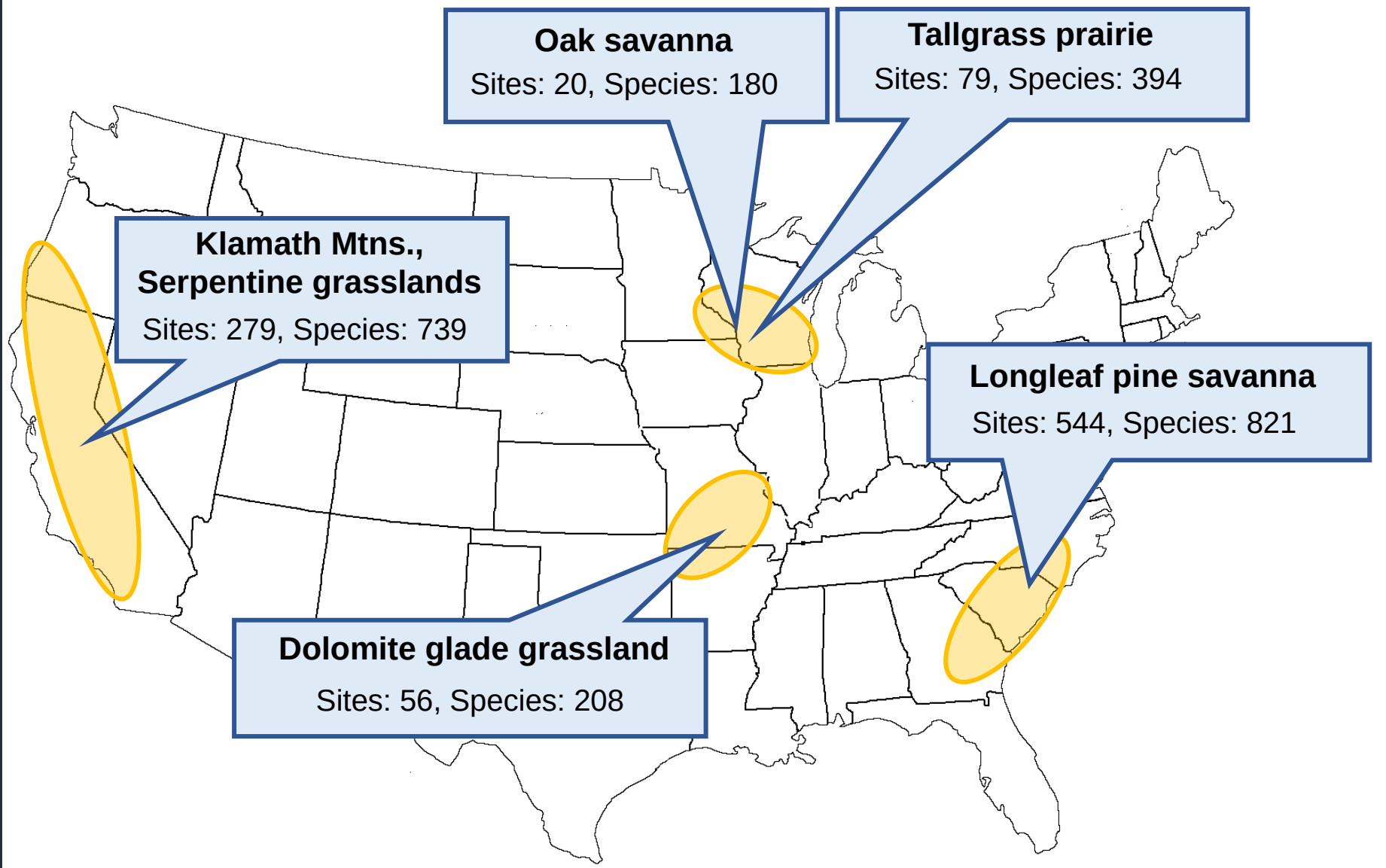
Long-term



Functional



Study systems



Study systems

Serpentine



Longleaf pine savanna



Prairie



Glade



Oak savanna



Grassland  Savanna



Talk outline



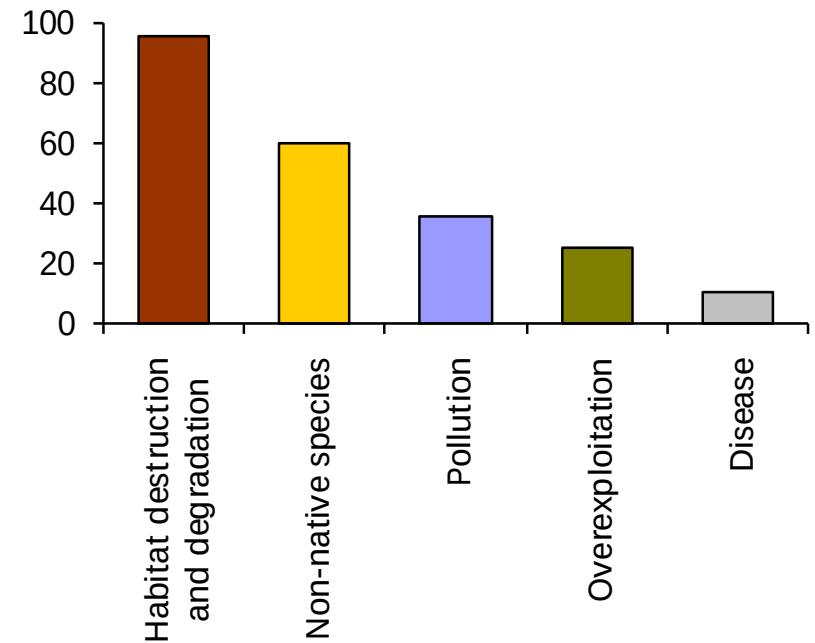
1. Approach and study systems
2. How does landscape connectivity affect long-term community dynamics?
3. How do landscape and local factors affect long-term change?

Habitat loss and fragmentation



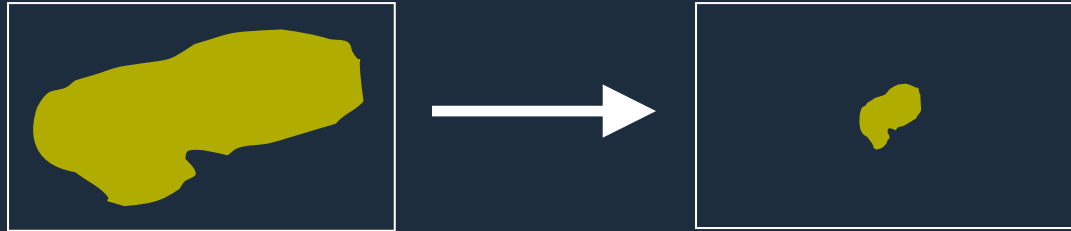
Photo: <http://www.personal.psu.edu/users/k/j/kjs288/fragmentation.html>

**Factors Contributing to Species Endangerment
(Wilcove et al. 1998)**

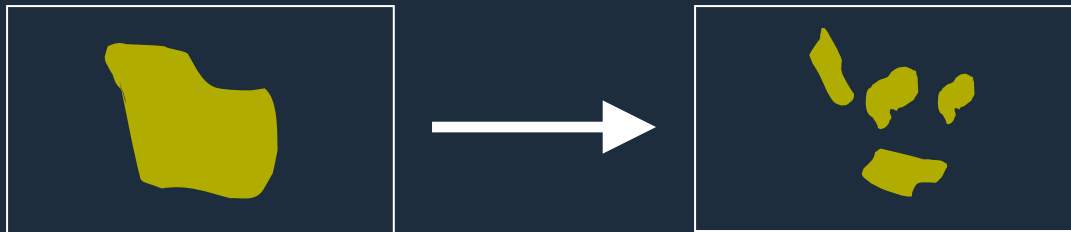


Fragmented landscapes:

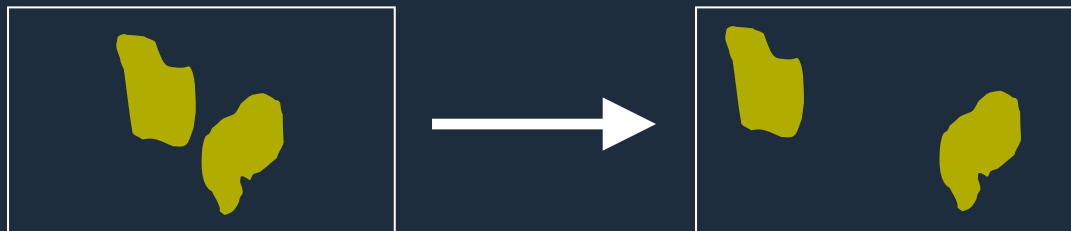
1. Decreased habitat area



2. Increased prevalence of edges

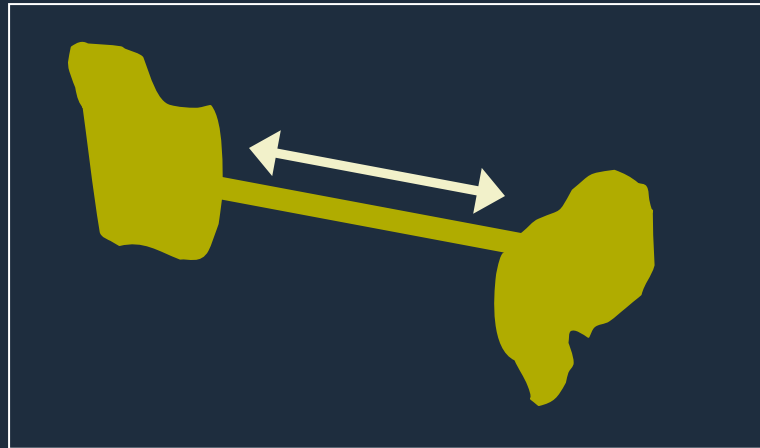


3. Increased isolation



Landscape corridors

- Reduced between-patch isolation -



Hypothesized to increase:

- Movement
- Population sizes
- Genetic diversity
- Species diversity



Image: ceres.ca.gov

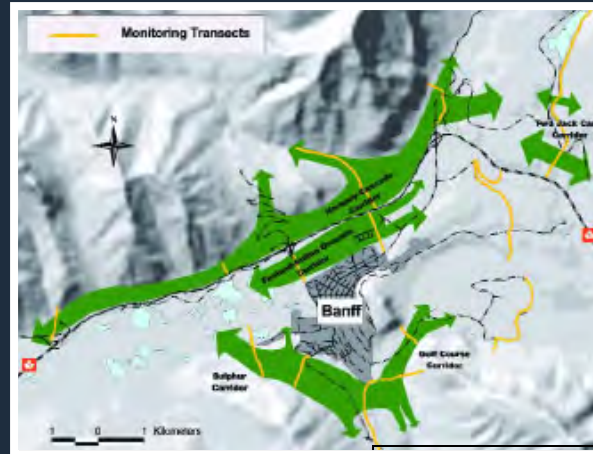


Image: www.pc.gc.ca



Image: www.y2y.net

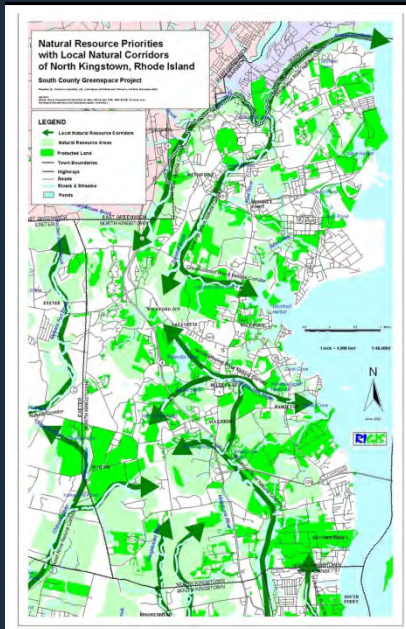


Image: www.wildlands.org

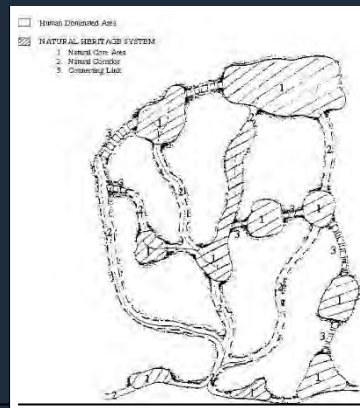


Image: www.carolinian.org

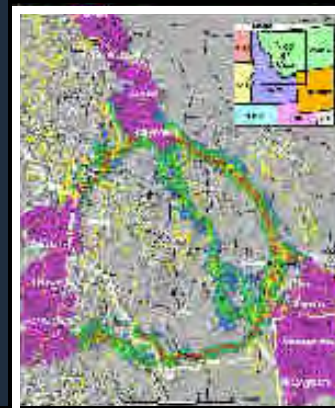


Image: www.wildlands.org

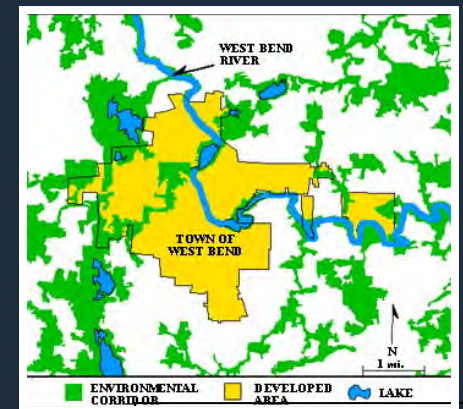


Image: www.qlf.org/greenways