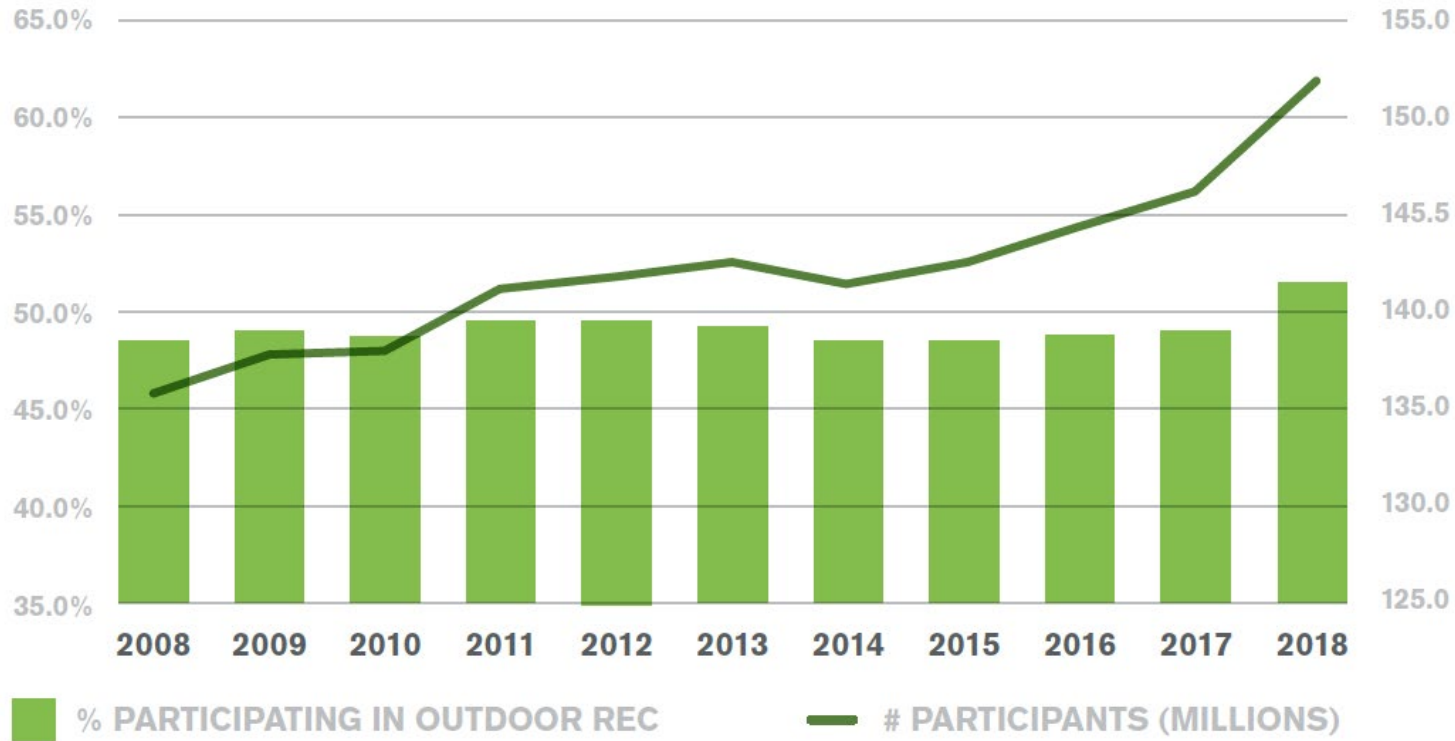


# National Parks as “Science Labs”

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## OUTDOOR PARTICIPATION TRENDING



Outdoor Participation Report, 2019





If recreation  
is  
permitted...

...some degree of impact is inevitable.



Illustration by Michael Byers

# Outdoor Recreation Management

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managing outdoor recreation in parks and protected areas using a variety of strategies and tools.

Ensures visitors have quality experiences in the outdoors while also protecting natural resources!

# Recreation Ecology

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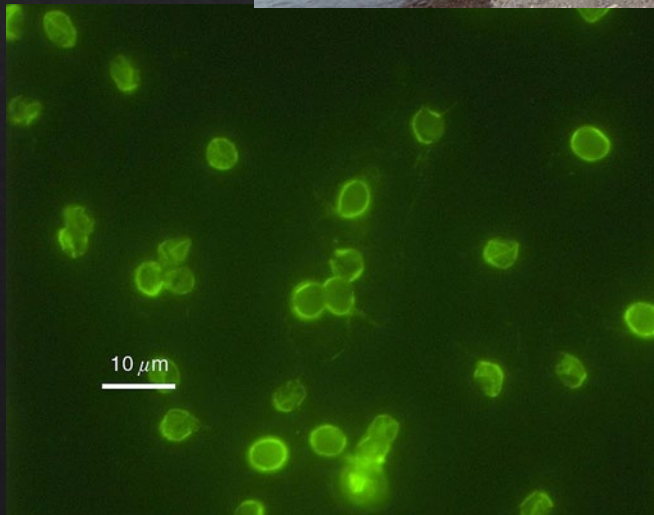
the study of the environmental consequences of outdoor recreation/nature-based tourism activities and their effective management.

**Interdisciplinary field that combines social and ecological sciences**

# Soil & Vegetation

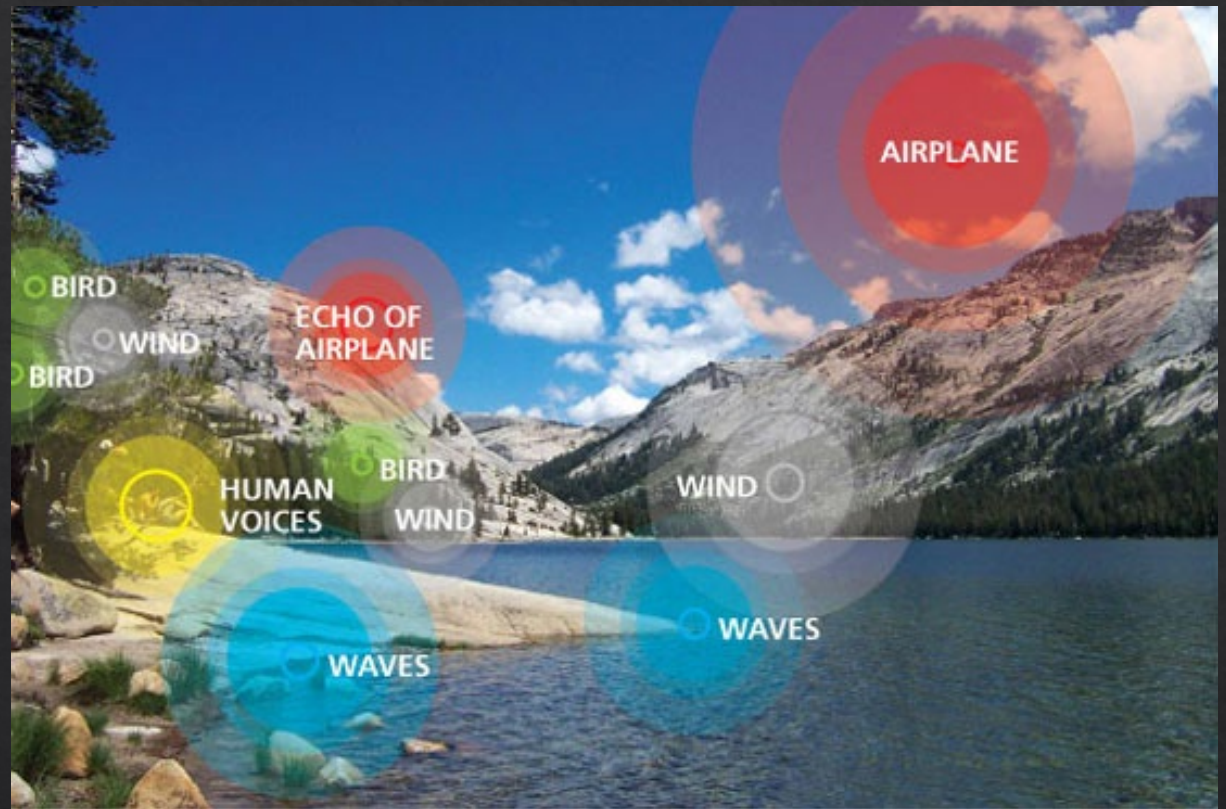


# Wildlife & Water





# Air Quality & Soundscapes



“Spot the Impact” National Park Tour!



Yellowstone National Park, Wyoming







Off-trail hiking

Damage to geothermal feature

Wildlife (harassment?)  
(Social & Ecological Impact!)



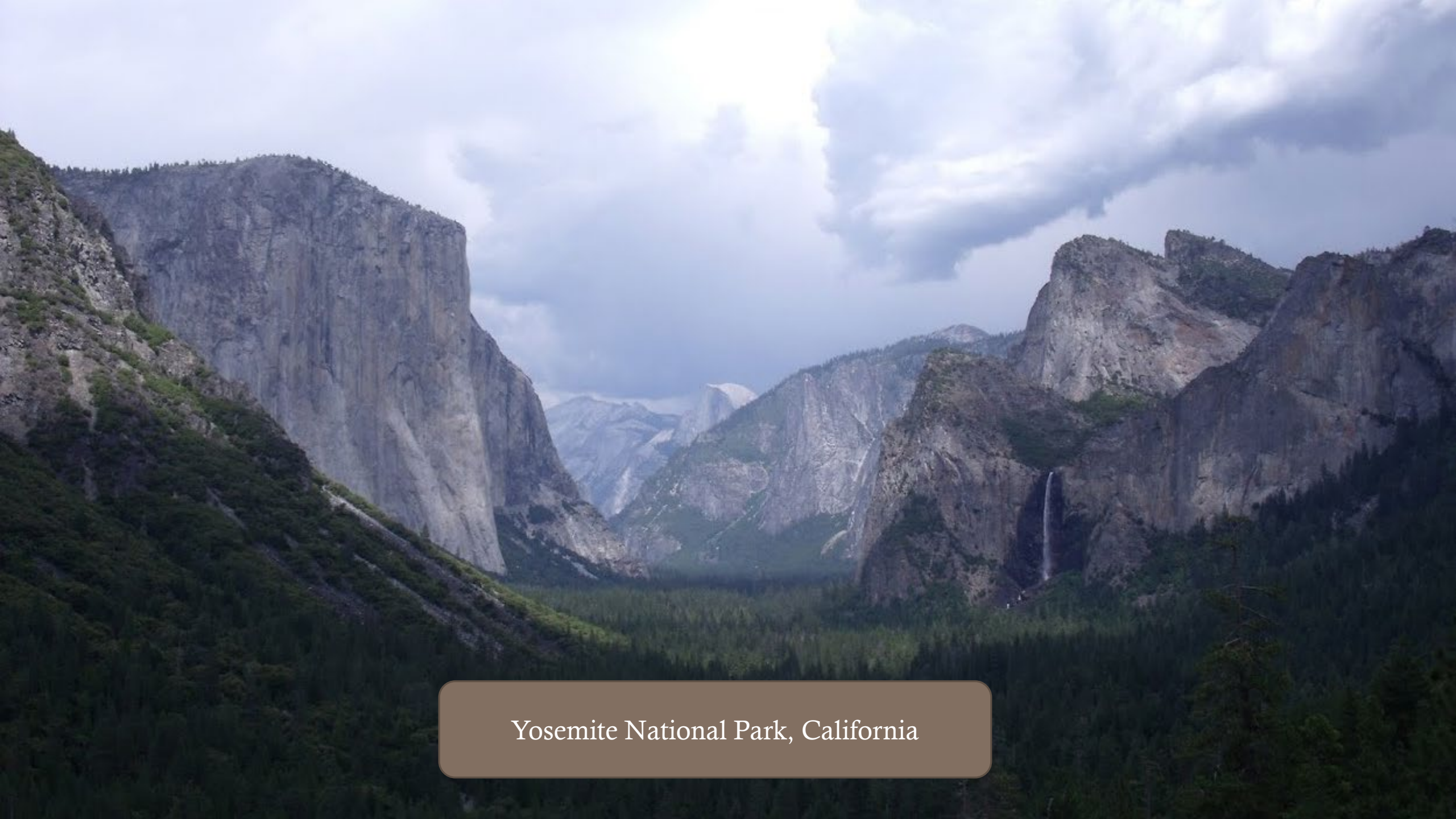
Grand Teton National Park, Wyoming





Vegetation Loss  
Soil Compaction  
Camp “Furniture”  
Improper Food Storage  
(Social & Ecological Impact!)





Yosemite National Park, California





Litter

Vegetation Loss

Soil Erosion

Water Quality Impacts (erosion, soap,  
waste)

Possible Root Damage?

# What makes TRAL so great?

**Science-informed management!**

**Social & ecological sciences**

**Understand the “who, what, where, when” of the recreation system**



Thank you!

Credit to Susie Sidder  
(PhD Candidate) for  
“Spot the Impact”  
Activity Idea

