

# Grasslands & Climate Change

*A Listening Session to Discern High Priority Information Needs and Trainings*

Climate Solutions Days  
April 22, 2022

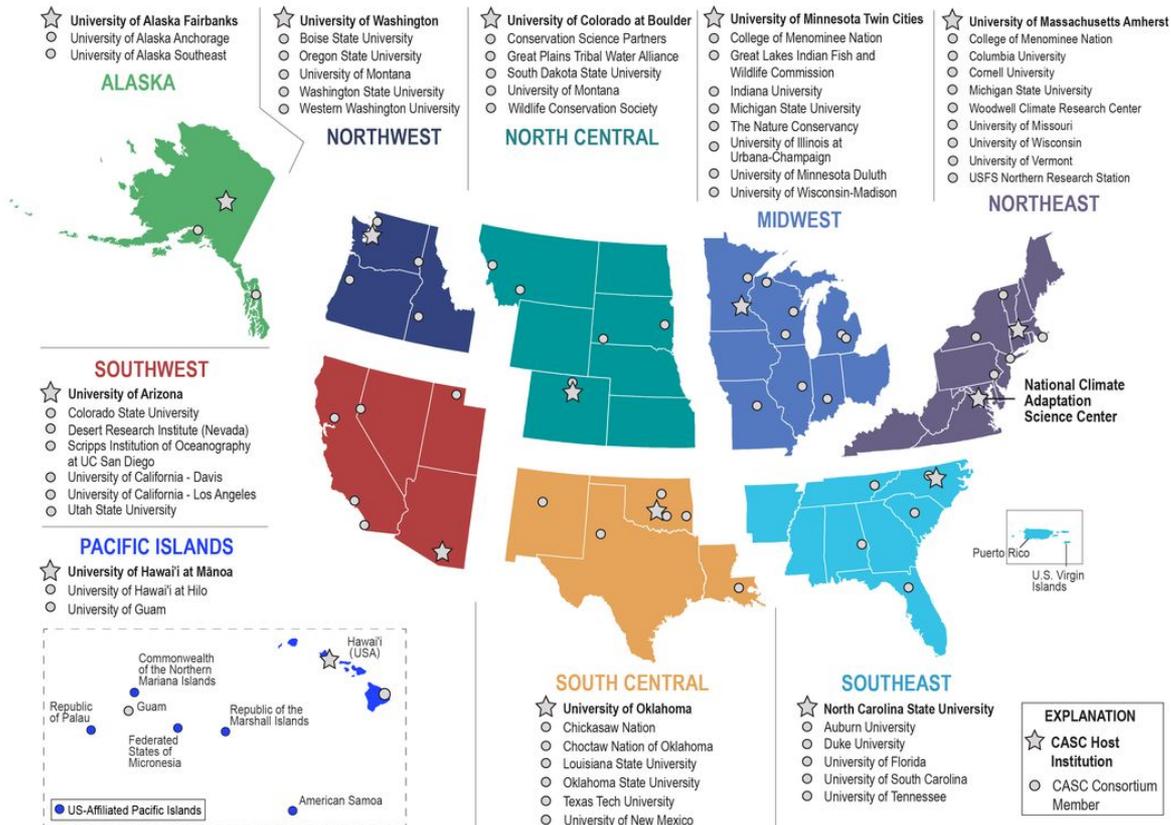


North Central Climate Adaptation Science Center

**MISSION**  
to deliver  
science to help  
fish, wildlife,  
water, land, and  
people adapt to  
a changing  
climate.

## Climate Adaptation Science Center (CASC) Regions

The CASCs collaborate across boundaries to address shared ecosystems, watersheds, and landscapes



# Welcome!

## Objectives:

- Share the outcomes of the NC CASC Grasslands Synthesis Project, previous listening session, and survey results
- Receive input on
  - what identified information needs are most urgent for managing grasslands in a changing climate, and
  - what format would be most helpful for sharing that information



# Agenda

- Presentation on outcomes of
  - NC CASC Grasslands Synthesis Project
  - Joint Stakeholder Listening Session
  - Survey Results
- Discussion in Breakout Groups
- Regroup
  - Report Back
  - Preview Upcoming Opportunities



# Grasslands Synthesis Project

- November, 2020 –
- ID research needs

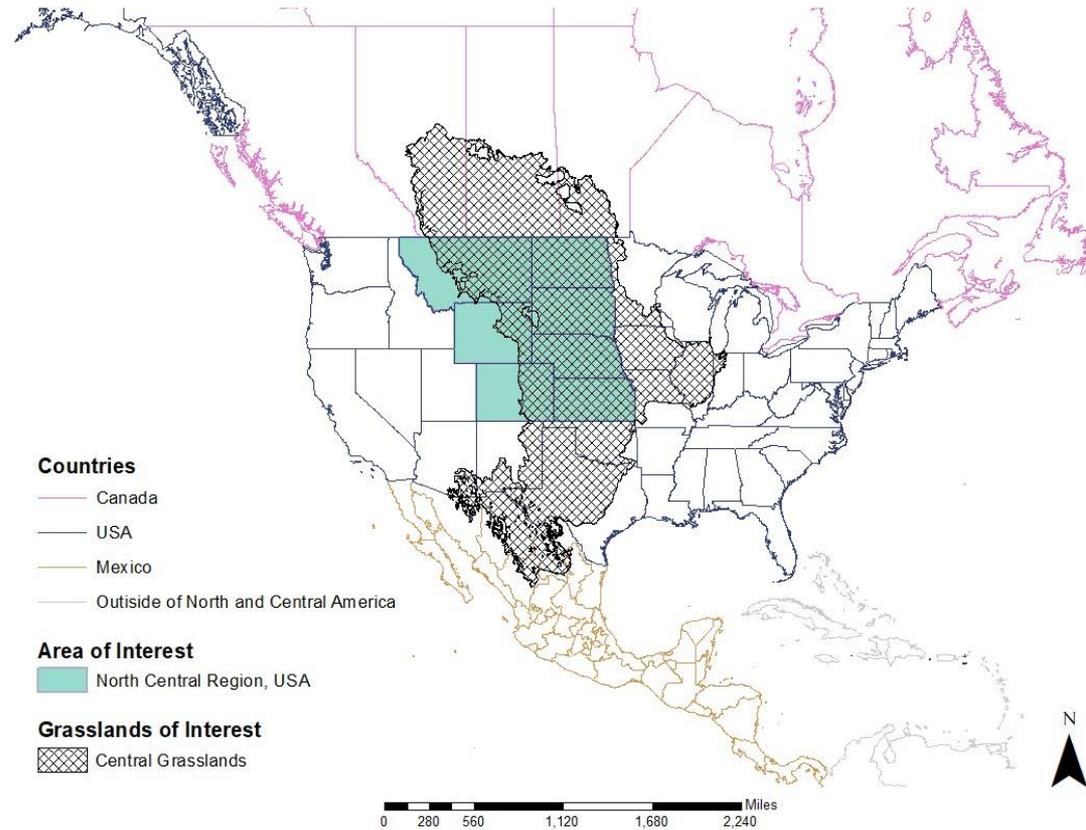
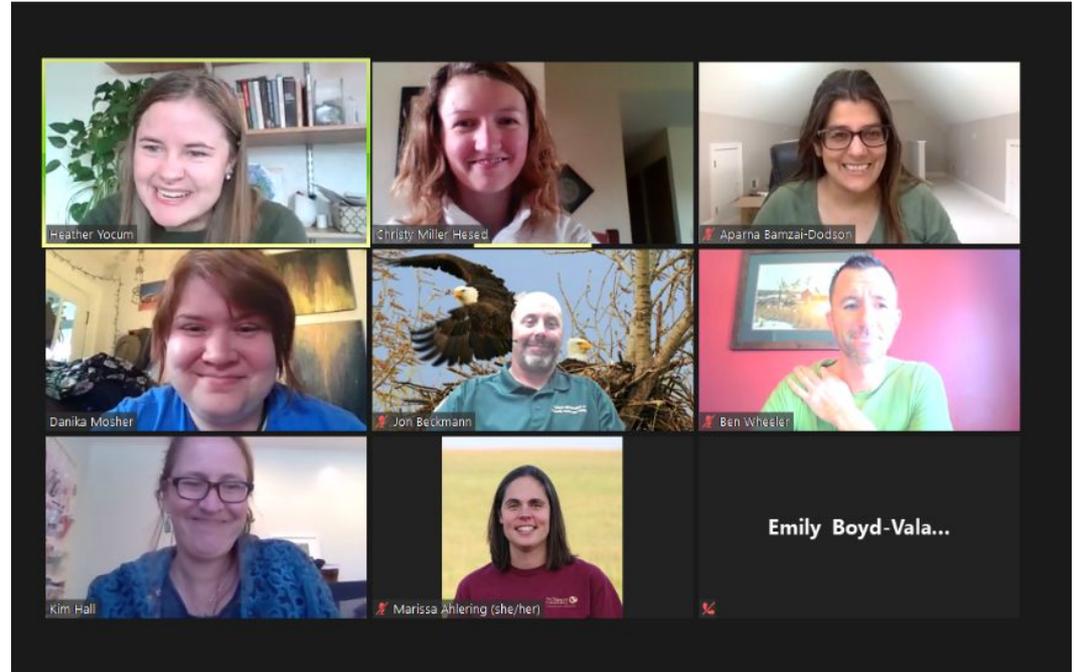


Figure by Sarah Jaffe



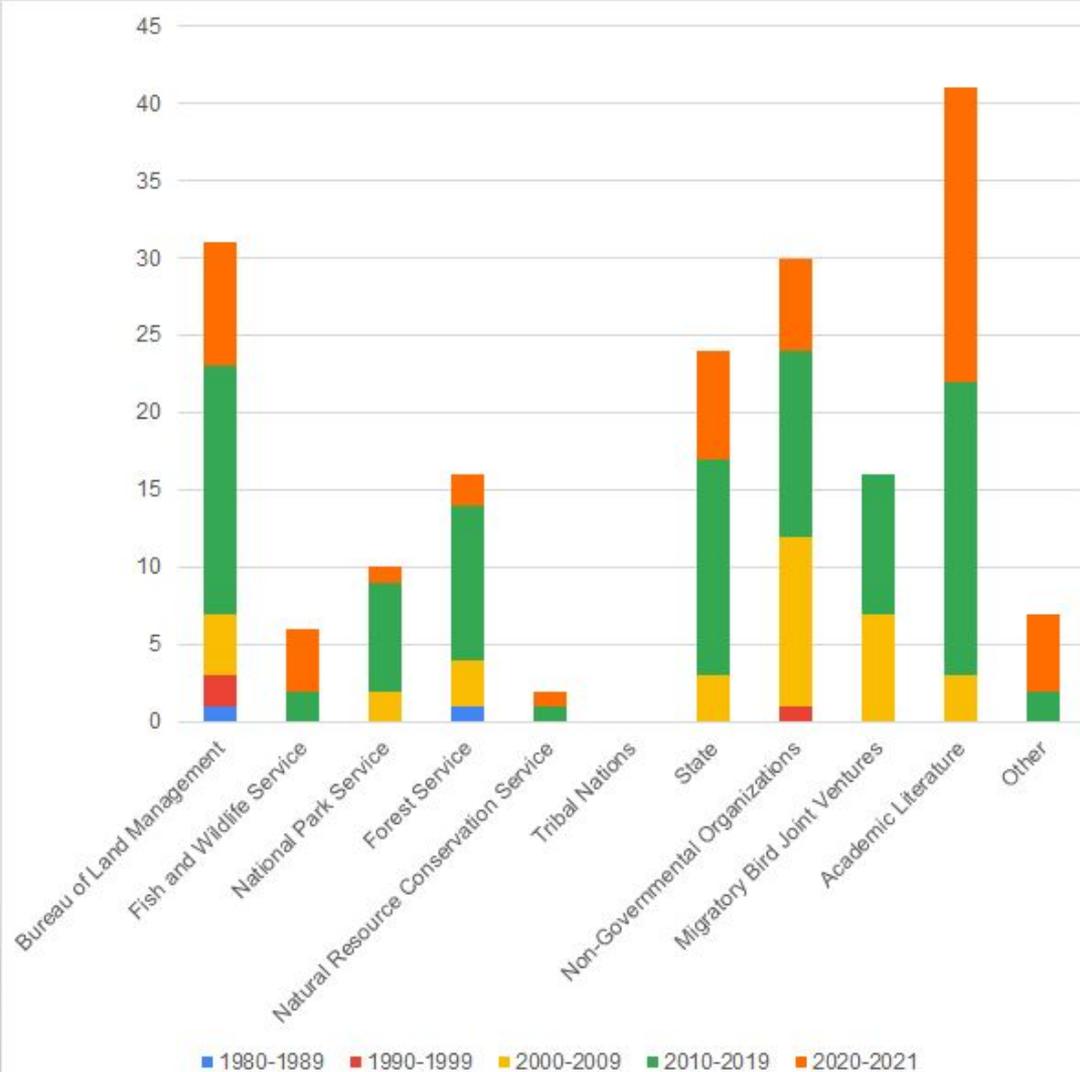
# Grasslands Synthesis Project

- November, 2020
- ID research needs
- Working Group



# Grasslands Synthesis Project

- November, 2020
- ID research needs
- Working Group
- 183 documents



1. Where are grasslands most likely to be lost to other land uses?
2. What are best practices for grassland reconstruction and restoration in a changing climate?
3. How will climate change affect disturbance regimes?
4. How will climate change impact woody encroachment?
5. How will climate change impact herbaceous invasives?
6. How will climate change impact grazing?
7. How will climate change impact water quality, quantity, and availability?
8. How will climate change affect animal species of conservation concern?
9. How can conservation on private grasslands be achieved?
10. How can public understanding of grasslands and their importance increase?
11. What legal and policy changes can support grassland resilience to climate change?
12. How can grassland protection, enhancement, maintenance, and reconstruction be economically incentivized?
13. How can grassland management be strategically coordinated across agencies, organizations, jurisdictions, and borders?
14. How can the accessibility of relevant science and tools be improved?
15. What novel ways of thinking are needed to successfully manage grasslands amidst climate change?



# Joint Stakeholder Committee

- **August 26, 2021**
- **Listening Session**



# Joint Stakeholder Committee

- August 26, 2021
- Listening Session ➡ Desired Future Conversations
  - Engage private landowners
  - Engage with other grassland managers
  - Engage with multiple partners simultaneously



# Survey Results

- **21 responses**

## Highest Ranked Information Needs (Average Rank)

- How will climate change affect the disturbance regime? (3.79)
- Where are grasslands most likely to be lost to other land uses? (5.58)
- What novel ways of thinking are needed to successfully manage grasslands amidst climate change? (6.47)
- How can conservation on private grasslands be achieved? (6.68)
- How will climate change impact woody encroachment? (7.16)



# Survey Results

- **21 responses**

## Other Needed Information

- **Application:** How to apply climate change knowledge to the actual work of management.
- **Incentivization:** How to incentivize climate adaptation planning in public land management (given other existing demands on staff time).
- **Visualization:** Maps to show where grass, forb, and animal species are expected to shift their range. Where will they be most and least resilient to climate change?
- **Engagement:** How to increase engagement with TEK, tribes, and local communities to restore grasslands.
- **Funding:** How to fund this work?



# On the Horizon

## NC CASC Grasslands Synthesis Project

- Grassland Managers Information Needs Report
- Synthesis of Existing Science & Gaps Report
- Targeted 2-page summaries

## Climate Change & Grasslands Webinar Series

