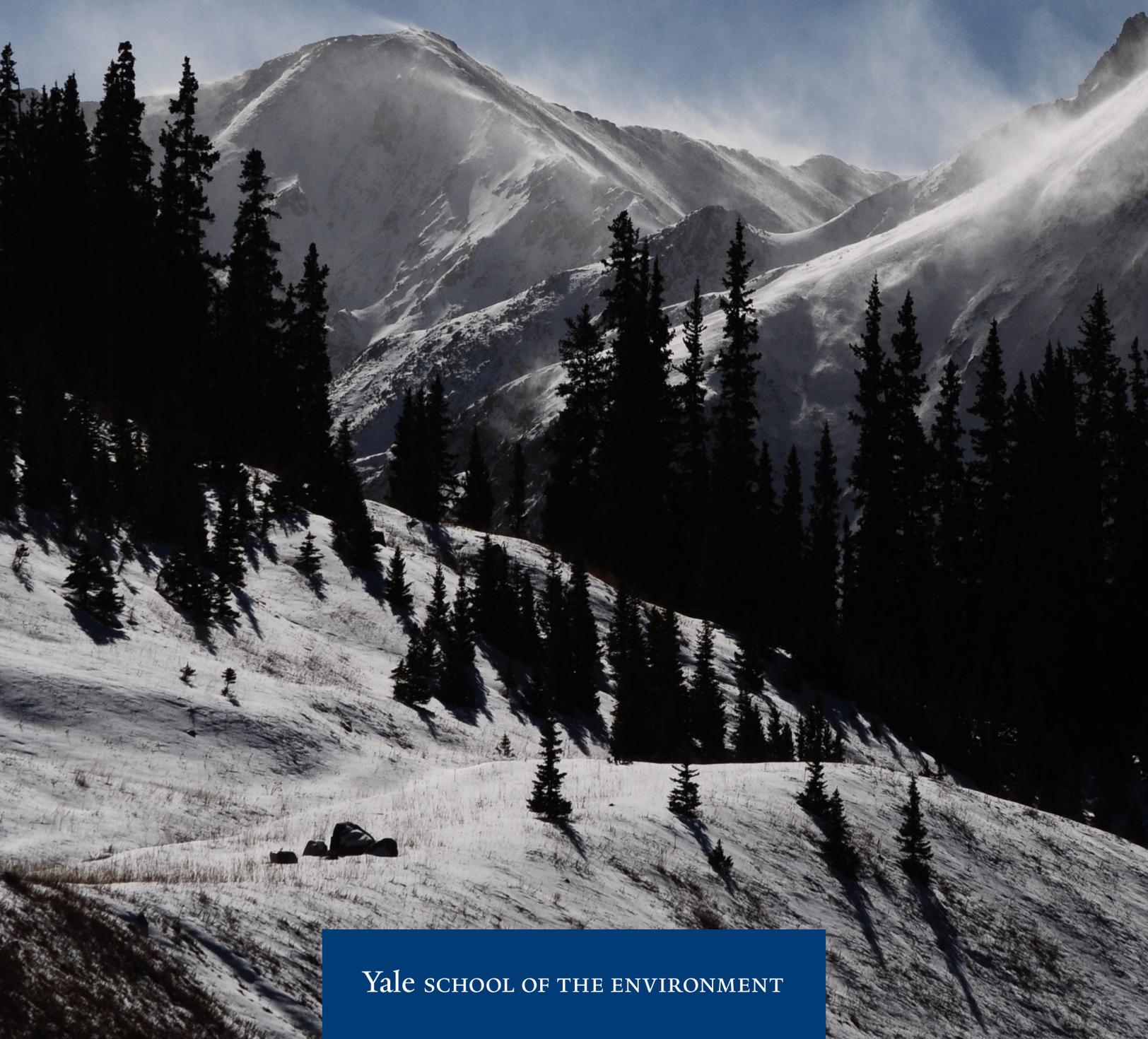


Ucross High Plains Stewardship

# 2025 ANNUAL REPORT



Yale SCHOOL OF THE ENVIRONMENT

## IMPACT SUMMARY

34

Students involved

30

Stewardship and conservation deliverables completed

24

Partners engaged

## IMPACT AREA

We provide students the opportunities to develop the skills needed to be leaders in land stewardship and conservation by supporting hands-on field courses, research, and collaborative conservation projects in the American West. This map illustrates where our work has impacted conservation during 2025.



## OUR MISSION

Fostering land stewardship and conservation in the American West through teaching, research, outreach, and leadership.

**In this report, we highlight another year of hands-on research, community partnership, and place-based learning across the American West. From reimagining public transit in Crested Butte, Colorado, to studying ecosystem recovery on reclaimed well pads in Wyoming, and exploring cultural connections to land through Pueblo pottery traditions, our students applied their academic training to address real-world environmental and social challenges.**

Through field-based projects, collaborative research, and community-engaged scholarship, students examined the intertwined ecological, cultural, and economic dynamics shaping Western landscapes. Additional work ranged from mapping wildlife habitat and soil change in sagebrush ecosystems to analyzing water allocation, beaver conflict mitigation, and grassroots environmental advocacy. Together, these efforts reflect a growing commitment to research that is both scientifically rigorous and grounded in the lived realities of Western communities.

These accomplishments are made possible by the continued support of our partners, alumni, and collaborators. As you explore this year's report, we hope you are inspired by the creativity, care, and leadership of the students working to advance conservation and land stewardship across the West.



*J. P. Fall*

## HIGHLIGHTS

### Engaging with Communities and Advancing Restoration

Faculty Director Justin Farrell and Program Director Michelle Downey traveled across the Western U.S. to deepen engagement with communities and build partnerships. Justin gave public presentations to rural residents and local officials, sharing recent histories of the social and environmental issues these communities face. These presentations support informed decision-making that strengthens the long-term viability of communities and their surrounding landscapes. Michelle attended the Society of Ecological Restoration Global Conference in Denver, Colorado, to build collaborations, expand technical expertise, and examine how Western conservation issues compare and contrast with restoration efforts worldwide.



### Building Connections Across the West

This year our Western Connections and Community event series strengthened engagement with the people, places, and ideas shaping the American West. Events ranged from informal breakfast gatherings to guest speaker presentations. We kicked off the academic year with an event featuring ten Yale faculty who spoke on their work advancing social, historical, and ecological knowledge in the region. In November, students, including Jack Newman and Taylor Furrh (pictured right), visited Yale's Beinecke Rare Book & Manuscript Library to examine archival materials that illuminated the history of Western environmental issues.



We also hosted Dr. Seth Wilson of the Blackfoot Challenge, who spoke on public lands management and collaborative conservation. These events foster deeper learning and build community around Western scholarship at Yale and beyond.



## STUDENT IMPACTS

### Reimagining Public Transit in Crested Butte, Colorado for a Sustainable Future

Our students Joshua Hernandez ('25 MEM) and Kathleen Maeder ('26 MEM), together with postgraduate associate Quinn Raymond, partnered with the Town of Crested Butte, Colorado, to help design a more sustainable transportation system, prioritizing buses, cycling, and walking over automobiles. The team reviewed the transportation plan, analyzed public feedback, and drew insights from similar Western communities. Their presentation and final report offered actionable recommendations to reduce emissions, expand mobility options, and advance Crested Butte's long-term sustainability goals.



### Reclamation of Natural Gas Well Pads

Jianing Tian ('26 MESC), a summer fellow, conducted research in Wyoming's upper Green River Basin to assess vegetation recovery on reclaimed



natural gas well pads. Jianing studied aboveground net primary production and plant functional type composition on reclaimed sites and adjacent undisturbed areas, identifying long-term trends in herbaceous recovery. These findings will inform reclamation practices and support resilience in dryland ecosystems impacted by energy development.

### Pueblo Connections to the Environment

Our summer fellow, Carine Rofshus (MESC '26), explored how the process of making traditional Pueblo pottery reflects and reinforces intergenerational connections to land and culture. Drawing from qualitative methods, interviews were co-produced with Pueblo potters, cultural experts, and western scientists, including archaeologists, geologists, and materials scientists. Indigenous Knowledge and Western Science were interfaced. Together, they revealed clay is both material and relation that has spiritual, cultural, and scientific meanings. Her findings offer new insights into the stewardship of cultural landscapes facing environmental change.



### Mitigating Millions of Mormon Crickets

Mormon cricket (*Anabrus simplex*) outbreaks disrupt roads, rangelands, crops, and daily life across the Intermountain West. This summer, Li



Murphy (MESC '26) used drone mapping, experimental tracking, and community interviews across rural Nevada and the central Great Basin to document how swarms move and how people respond. The findings offer a clearer history of these conflicts to inform local and institutional response.

## ALUMNI CONNECTIONS



*"No two days are the same as an Extension Forester in western Oregon! I support landowners, build partnerships, and lead forestry education across my three-county area. Highlights this year included co-hosting a forestry and bird habitat field tour and organizing sawmill and forest visits. My time at Ucross working with TNC Wyoming strengthened my curiosity, communications, and commitment to building relationship within my professional community."*

JAKE BAKER, '24 MF  
EXTENSION FORESTER  
ASSISTANT PROFESSOR OF PRACTICE  
OREGON STATE UNIVERSITY

## ADDITIONAL PROJECTS

Read more about these projects at [highplainsstewardship.com](https://highplainsstewardship.com)

- Understanding the Landscape Factors that Influence Habitat Selection and Movement for Pronghorn in southwestern Montana
- Soil Organic Matter Dynamics Following Energy Development in Wyoming Sagebrush Ecosystems
- Catalyzing Environmental Action Through Law and Grassroots Advocacy in Bozeman, Montana
- Evaluating Water Allocation Models in Climate-Vulnerable Regions
- Mapping Beaver Conflicts and Solutions in Montana
- Radiation Use Efficiency in the Western Great Plains
- Investigating Ranchers' Intervention Strategies for Grasshopper Suppression on Western Rangelands
- Quantifying Economic Benefits of Conservation with Blackfoot Challenge

