

Present a Poster

Travis

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**Co-Producing the Department of Interior's Bison Shared Stewardship Strategy**

*One-sentence summary*

Participants will explore an innovative approach to co-producing a wildlife conservation strategy via partnership with Tribes and Federal agencies.

*Abstract*

The Department of the Interior (DOI) has made a commitment to shared stewardship of wild bison in cooperation with states, Tribes, and other stakeholders. In 2023, the DOI assembled a group of Federal and Tribe-nominated co-authors to co-produce a Bison Shared Stewardship Strategy, establishing a comprehensive framework and strategic directions to advance partnerships key to ecocultural restoration of bison across the country. This innovative co-production process strengthened relationships among Federal agencies and Tribes, established a broadly applicable strategy for bison restoration partnerships and actions to support place-based efforts, and yielded valuable lessons that can inform efforts by Tribes, agencies, and others working together to advance wildlife restoration through collaboration across scales.

*Additional people involved in the presentation, if any*

Organize an Information-Sharing Session: Invited Papers

Chris

Armatas

Research Social Scientist

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The valiant effort to collaboratively plan for the Alpine Lakes Wilderness

One-sentence summary

Attendees/audience members will understand urban-proximate wilderness management, a collaborative effort, and the role of tribal communities.

Abstract

Alpine Lakes Wilderness (ALW) is a highly visited wilderness (150,000 people annually), located outside of Seattle, WA. As with other urban-proximate wildernesses, people are increasingly accessing the ALW for recreation, leading diverse rightsholders and stakeholders to be variously concerned about the impacts of recreation, fair and reasonable opportunities for access, preserving wilderness character within the administrative boundaries of the wilderness area, and ensuring the wilderness area is managed as part of the broader surrounding landscape. This session proposes to introduce the ALW with select portions of a professionally-developed movie, which will be followed by three paper presentations outlining nearly four years of effort focused on collaboratively planning for the integration of natural and cultural heritage of the ALW.

Additional people involved in the presentation, if any

Chris Armatas, Research Social Scientist, Aldo Leopold Wilderness Research Institute – paper title: The arc of the Alpine Lakes Collaborative  
Lauren Redmore, Research Social Scientist, Aldo Leopold Wilderness Research Institute – paper title: The Alpine Lakes Collaborative experience: A qualitative study of participating members  
Stephanie Barron, ORISE research fellow, Aldo Leopold Wilderness Research Institute – paper title: Collaboration, consultation, and tribal involvement in wilderness planning

Present a Poster

Adam

Auerbach

Institutional Knowledge Project Fellow

Next Interior

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**Getting Managed Access Right: Equitable Design of Visitor Use Management Systems**

*One-sentence summary*

Attendees/audience members will better understand equity concerns associated with managed access systems and design features to mitigate them.

*Abstract*

Managed access systems are becoming more popular to modulate visitation to our parks. Associated planning documents tend to conclude that managed access will not impact social equity outcomes regarding visitation. However, existing research is inadequate to support this conclusion across contexts. In particular, managed access systems may have differential social equity outcomes in remote versus urban-proximate parks, which is a consideration that should inform planning processes and future research. Otherwise, managed access systems may inadvertently change the demographics of park visitors and in turn supporters, which could lead to unacceptable advocacy and political outcomes around support for parks. This poster will also share design features that promote equity in managed access systems.

*Additional people involved in the presentation, if any*

Cassidy Jones, Senior Visitation Program Manager, National Parks Conservation Association

Present a Paper

Adam

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Institutional Knowledge Project Fellow

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**Getting Managed Access Right: Planning for Equitable Design of Visitor Use Management Systems**

*One-sentence summary*

Attendees/audience members will better understand equity concerns associated with managed access systems and design features to mitigate them.

*Abstract*

Managed access systems are becoming more popular to modulate visitation to our parks. Associated planning documents tend to conclude that managed access will not impact social equity outcomes regarding visitation. However, existing research is inadequate to support this conclusion across contexts. In particular, managed access systems may have differential social equity outcomes in remote versus urban-proximate parks, which is a consideration that should inform planning processes and future research. Otherwise, managed access systems may inadvertently change the demographics of park visitors and in turn supporters, which could lead to unacceptable advocacy and political outcomes around support for parks. This presentation will conclude with an overview of design features that promote equity in managed access systems.

*Additional people involved in the presentation, if any*

Cassidy Jones, Senior Visitation Program Manager, National Parks Conservation Association

Present a Paper

Anna

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Reducing Bear Conflicts Through Attractant Prioritization

One-sentence summary

Attendees/audience members will better understand how to prioritize attractant mitigation to reduce human-bear conflicts using a data-driven approach.

Abstract

Black and grizzly bear encounters with people raise the risk of conflict. Unsecured attractants like garbage, fruit trees, and poultry are key drivers. Communities often rely on informal observations to guide attractant securing efforts or attempt to address all attractants, stretching resources and reducing efficacy. We adapted a Community-Based Social Marketing model to identify attractants with the greatest potential to reduce conflicts. Using expert elicitation in Montana’s Bitterroot Valley, we assessed characteristics of different attractants and prioritized using our adapted model. Our findings highlight key attractants that, if secured, could most significantly reduce conflicts. More broadly, this framework offers a widely applicable tool to efficiently allocate limited resources for reducing human-wildlife conflicts.

Additional people involved in the presentation, if any

Co-authors:  
- Brianna P. Lipp, Human Dimensions Lab, Wildlife Biology Program, University of Montana, Missoula MT 59812  
- Alexander L. Metcalf, Human Dimensions Lab, Wildlife Biology Program, University of Montana, Missoula MT 59812  
- Sarah N. Sells, U.S. Geological Survey, Montana Cooperative Wildlife Research Unit, Wildlife Biology Program, Ecology & Evolution Program, University of Montana, Missoula MT 59812

Present a Paper

Elizabeth

Baldwin

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**Learning From Burning: Connecting Fire Managers and Fire Scientists**

*One-sentence summary*

Attendees/audience members will learn about a specific leaning exchange network focused on fire management and science.

*Abstract*

The fire community is one of transparency and learning, and embedded in its culture is an openness of sharing successes and failures in order to learn and adapt. United by a shared desire to effectively understand and utilize controlled burns to successfully extinguish wildfires and research their lasting effects, fire managers and fire scientists coexist in partnerships commonly referred to as knowledge exchange networks. This research examines one such network, the Consortium of Appalachian Fire Managers and Scientists (CAFMS). Interviews with CAFMS members were analyzed, and the coding of salient statements. The effectiveness of this consortium is due to virtual connections but mainly stems from face-to-face engagement.

*Additional people involved in the presentation, if any*

Taylor Parker will present for Dr. Baldwin, who cannot attend.  
Coleman Little, co-author  
Helen Mohr, co-author  
Jen Bunty, co-author  
Matt Brownlee, co-author  
Bob Brookover, co-author

Present a Paper

Josh

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**Climate change and fire alter biotic interactions and tree growth in wilderness treeline forests**

*One-sentence summary*

Attendees will understand the complex, interactive effects that climate change is having on wilderness treeline forests.

*Abstract*

Climate change and shifting fire regimes are reshaping high-elevation forests, yet the role of biotic interactions in modulating these changes remains unclear. Many of these ecosystems in the western US fall within federally designated Wilderness areas, offering a unique opportunity to study treeline forest dynamics with minimal confounding factors. To investigate how global change affects climate-fire-vegetation interactions, we sampled tree growth and forest structure across treeline sites in the Selway-Bitterroot Wilderness. Our results indicate that current trends are rapidly altering both the structure and biotic interactions formerly characteristic of treeline forests. These findings underscore the value of Wilderness as a “natural laboratory” and will help guide future management of high-elevation forest ecosystems.

*Additional people involved in the presentation, if any*

Present a Paper

Rajiv

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Consultant

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**The Social and Political Impacts of Zoning in Protected Areas - Case Study, Corbett Tiger Reserve**

*One-sentence summary*

Attendees/audience members will better understand the strengths and limitations of zoning as a management technique in protected areas & tourism.

*Abstract*

Zoning has become the sine qua non in protected areas and wilderness management worldwide. Yet zoning, as an assemblage of policies, practices, and especially politics, is poorly understood, particularly through a critical geographical and political ecology lens. In this qualitative study, I employed the concepts of territorialization, reterritorialization, and enclavization as a framework for examining the creation and impacts of zoning in the Corbett Tiger Reserve (CTR) landscape over the past five decades (1973-2023). This framework facilitated understanding successive phases of core, buffer, and tourism zone-making, as well as the proliferation of resort tourism and its negative implications for local communities. The politics of zoning in wilderness areas, with their uneven social and ecological impacts, requires further study.

*Additional people involved in the presentation, if any*



Present a Paper

Clara-Jane

Blye

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**Parks and citizenship, access, and identity**

*One-sentence summary*

Engage with responsive/representative park planning, and discuss frameworks that recognize the role of parks as both environmental and social commons

*Abstract*

This presentation explores the transformative potential of parks as inclusive leisure spaces for New Canadians navigating the intersection of cultural heritage and environmental engagement. As place-based conservation sites, parks are not only ecological preserves but also evolving cultural landscapes where questions of belonging, identity, and justice unfold. Drawing on interviews with 14New Canadians from diverse backgrounds this study examines how nature-based leisure functions as both a site of reconnection, with nature and cultural memory and a space of Canadian identity formation. Participants shared narratives of healing, community building, and emotional well-being through park visits, while also confronting challenges related to accessibility, cultural norms, and feelings of exclusion.

*Additional people involved in the presentation, if any*

Elizabeth Halpenny, University of Alberta

Present a Poster

Clara-Jane

Blye

Assistant Professor

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**The influence of novel communication interventions on overnight park visitors**

*One-sentence summary*

Attendees/audience members will better understand the role of multi media messages and the influential scope of pledges.

*Abstract*

The Camper’s Code Pledge, developed by a coalition of British Columbia organizations, promotes responsible recreation in parks and campgrounds. This two-phase quasi-experimental study tested the effects of communication tools—written messages, multimedia, and pledges—on visitor behavior. Phase one surveyed 769 overnight visitors, showing that multimedia messaging (video) followed by a pledge significantly increased pro-environmental behavioural intentions. Phase two follow-up surveys are ongoing to assess long-term behavior change. Results indicate that written communication is not the most effective tool in shifting behaviours, in addition pledges as a singular act of commitment do not appear as influential as pairing persuasive multi-media communication with public commitment.

*Additional people involved in the presentation, if any*

Elizabeth Halpenny, University of Alberta  
Mu He, University of Alberta

Present a Poster

Margaret

Bogner

Master's Student / Summit Steward

University of Maine / Friends of Acadia

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**Exploring Visitor Perceptions of Summit Vegetation Restoration in Acadia National Park**

*One-sentence summary*

Attendees will better understand visitor perceptions of active vegetation restoration, including how likely visitors are to support the efforts.

*Abstract*

Acadia National Park (ANP), a federally protected area with a variety of tourism opportunities, is in the process of restoring lost vegetation on Cadillac and Sargent Mountains due to trampling from high recreational use. This exploratory research study investigates how to best support the restoration efforts through the use of various social science methods. The research aims to (1) analyze differences in motivations, behavioral intent, and demographics between different summit visitors, (2) examine spatial patterns of visitor movement, and (3) determine visitors' willingness to support restoration efforts. The results of this research will help guide ANP's staff and team partners for the next phase of restoration. Likewise, the results are applicable to other land management agencies looking to engage in summit restoration.

*Additional people involved in the presentation, if any*

Dr. Sandra De Urioste-Stone, Advisor, University of Maine  
Dr. John Daigle, Committee Member, University of Maine  
Dr. Adam Gibson, Committee Member, Acadia National Park  
Becca Stanley, Committee Member, Friends of Acadia

Organize an Information-Sharing Session: Panel Discussion

Michelle

Bowden

Director, Conservation Programs Branch

Parks Canada

Canada

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Indigenous Stewardship: Conservation Through Relationships

One-sentence summary

Audience members will have a deeper understanding of how Parks Canada approaches implementation of the Indigenous Stewardship Policy

Abstract

Parks Canada has embarked on a process of organization-wide renewal, centered around a vision of protected heritage area management and governance that is respectfully aligned with Indigenous ways of stewarding lands, water, and ice. At its core is the Indigenous Stewardship Framework and Policy, which respectfully advances reconciliation and support implementation of the UNDRIP. Done in collaboration with Indigenous Leaders, the Indigenous Stewardship Policy (ISP) seeks to support the continuity of Indigenous cultures and advance how the priorities of First Nations, Métis, and Inuit peoples alongside Parks Canada’s mandate can be accomplished together to advance environmental, economic and community well-being. This session will share both Parks Canada and Indigenous perspectives of the ISP, key lessons learned and next steps.

Additional people involved in the presentation, if any

Presenters are still to be determined, but if a placeholder is required, the following names can be added:

Ernie Gladstone, Executive Director, Indigenous Stewardship, Parks Canada  
Cindy Boyko, Co-Chair, Indigenous Stewardship Circle, Parks Canada  
Carla Morse, Manager of Indigenous Engagement on Collections, Parks Canada

Participate in the 3MR (Three-Minute Research Competition)

Kika

Bradford

Social Scientist and Research Associate

Institute for Tourism and Recreation Research

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**Beyond science and regulations: Hidden factors shaping recreation management decisions**

*One-sentence summary*

Attendees will understand that managing recreation goes beyond science; it's shaped by people, beliefs, policies, and workplace climate.

*Abstract*

As demand for outdoor recreation grows, land managers must balance visitor access with conservation; yet little is known about the factors shaping their decisions. This study explores how beliefs, organizational climate, and past behaviors shape recreation decisions within Brazil's federal protected areas agency. Findings show that managers are more likely to embrace recreation when they see it as a conservation tool, perceive a supportive work environment, and have prior experience implementing it. Psychological and organizational enablers and barriers to Brazilian recreation may also apply to other areas and issues (e.g., climate change and JEDI efforts). These findings can inform conservation solutions by identifying pathways to bridge policy and practice gaps, improving capacity and readiness to meet rising challenges in conservation.

*Additional people involved in the presentation, if any*

Organize a Core Workshop Session: Presentations + Audience Interaction

Kika

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GenAI for conservation: Exploring opportunities and challenges in parks and recreation

One-sentence summary

Attendees will explore GenAI’s opportunities and challenges, gain hands-on experience, and reflect on its ethical use in recreation and conservation

Abstract

This interactive workshop explores how generative AI (GenAI) can support research and practice in conservation and outdoor recreation. We’ll break down what GenAI is, where it can help—from literature reviews and study design to data analysis and outreach—and where it falls short. Using examples from the Institute for Tourism and Recreation Research, this workshop will feature live demos, real-world case studies, and hands-on activities to explore GenAI’s potential, limitations, and ethical dimensions—such as its power to advance or hinder social and environmental justice. Whether you’re curious, cautious, or already experimenting, this is a space to ask questions, try things out, and shape how AI is thoughtfully and responsibly used in our field.

Additional people involved in the presentation, if any

Present a Poster

Victoria

Bugni

Scientist in Parks Postdoctoral Fellow

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**Valuing Ecosystem Services to improve Place-based Conservation: A Study of Sagebrush Steppe in U.S. National Parks**

*One-sentence summary*

Attendees/audience members will better understand services provided by sagebrush ecosystems and ecosystem service valuation methods.

*Abstract*

As national parks face mounting pressures from budgetary constraints and competing land uses, ecosystem service valuation has the potential to inform planning decisions. Quantifying services like wildlife habitat, watershed protection, and carbon storage helps park managers achieve their management priorities and justify their conservation investments. We examine the specific case of Sagebrush Steppe Ecosystem across several national parks, Craters of the Moon, Curecanti, Black Canyon of the Gunnison, and Grand Teton. Our on-going work will document ecosystem services provided by Sagebrush Steppe, value services that have been understudied, and demonstrate that ecosystem service valuation can complement and bolster traditional conservation goals.

*Additional people involved in the presentation, if any*

Would like to present as a Paper. This is a poster from the NPS/NPF/Scientists in Parks Fellow collaborative team.

Organize a Core Workshop Session: Hands-on Activity

Rob

Burrows

NPS Wilderness Training Manager

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Evaluating Ecological Intervention Proposals in Wilderness

One-sentence summary

Attendees will be able to identify key factors in considering ecological intervention proposals in the National Wilderness Preservation System.

Abstract

Climate change and expanding development causing landscape scale fragmentation pushes the perceived need for ecological interventions in Wilderness areas of the US. The Wilderness Act of 1964 mandates federal agencies preserve wilderness character, a holistic concept composed of 5 qualities. Across many landscapes the protected status and size of wilderness allows these areas to be the last and best refuge for many species and habitats. Interventions pose a conundrum because the untrammelled quality directly contributes to this refuge function of wilderness, yet interventions are a trammeling. Interventions are usually taken to preserve the natural quality. In small groups, attendees will explore factors to evaluate ecological interventions in wilderness through hands-on activity that helps point to conservation solutions and tradeoffs.

Additional people involved in the presentation, if any

Session co-organizers/co-presenters:  
Jimmy Gaudry, Director, Arthur Carhart National Wilderness Training Center  
Jaclyn Rushing, Social Scientist, Aldo Leopold Wilderness Research Institute



Organize an Information-Sharing Session: Sharing Circle

Rob

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NPS Wilderness Training Manage

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Exploring the Benefits of the National Wilderness Preservation System

One-sentence summary

Attendees will identify personal values and biocentric and anthropocentric benefits offered by wildlands and designated Wilderness in the US.

Abstract

The National Wilderness Preservation System (NWPS) was created in 1964 with the passage of the Wilderness Act, codifying the legal concept of designated wilderness that reflects places to preserve undeveloped and natural conditions, untrammeled ecosystems; provide outstanding opportunities for solitude and primitive and unconfined recreation; and protect cultural, ecological, and historical values. Today, the NWPS includes over 111.8 million acres in 806 wilderness areas across the US and Puerto Rico. Section 2(a) of the Act states, “it is hereby declared to be the policy of the Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness.” This session will facilitate exploration of wilderness values and benefits in the context of the wilderness character concept.

Additional people involved in the presentation, if any

Session co-organizers/co-presenters:  
Jimmy Gaudry, Director, Arthur Carhart National Wilderness Training Center  
Jaclyn Rushing, Social Scientist, Aldo Leopold Wilderness Research Institute

Present a Paper

Xochizeltzin

Castaneda-Camacho

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**Transdisciplinary Research for Biodiversity Conservation in Protected Areas of the Chihuahuan Desert**

*One-sentence summary*

Attendees/audience members will learn on the effectiveness of transdisciplinary research to assist decision-making in restoration of Protected Areas.

*Abstract*

Climate change is accelerating and diminishing the resilience of arid lands where flora and animal species are highly vulnerable to anthropogenic disturbance. This study undertaken from the perspective of landcover change examines three Protected Areas (PAs) in the Chihuahuan Desert of northern Mexico: 1) The Mapimi Biosphere Reserve, 2) The Reserve of Real de Guadalupe, and 3) The Reserve of the Sacred Site of Huiricuta. These three PAs are designated as biodiversity hotspots in the world and align with migratory bird corridors between North and South America. The goal is to identify the critical zones of habitat loss and their potential level for restoration. This work applies transdisciplinary research, mixed methods, geospatial technologies, and fieldwork. It fits in the workshop theme Responding to Climate Change.

*Additional people involved in the presentation, if any*

Present a Poster

Mercy

Chepkwony

PhD Student

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**Predicting Park Conservation Support via Livelihood Security and Human-Wildlife Conflict Assessment**

*One-sentence summary*

Attendees/audience will have an insight into the role of local socio-economic factors in shaping wildlife and park conservation dynamics

*Abstract*

Park conservation in the context of Africa presents complex challenges that require addressing conservation goals alongside local development needs. However, prevailing challenges such as human-wildlife conflict continue to threaten both conservation and local livelihoods. This cross-sectional quantitative study uses the case of Maasai Mara National Reserve in Kenya, to assess how livelihood security dynamics and human wildlife conflict influence local conservation support. Structured survey data was gathered from 411 households. Findings indicate moderate livelihood security, high incidences of human-wildlife conflict (HWC), and moderate-to-high conservation support. These factors are crucial to explore as they hold potential to inform policy that addresses both biodiversity conservation and local community wellbeing.

*Additional people involved in the presentation, if any*

Gasto Lyakurwa, PhD Student, The Pennsylvania State University

Edwin Sabuhoro, Assistant Professor, The Pennsylvania State University

Present a Poster

Lynne

Cherchia

Graduate Student

University of Southern California; Mount Wilson  
Bicycling Association

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**Building the path forward: USFS partnership enables post-fire restoration of SoCal multi-use trails**

*One-sentence summary*

Attendees/audience members will better understand the role of volunteer organizations in advocating for and restoring trails on our public lands.

*Abstract*

Mount Wilson Bicycling Association (MWBA) has been advocating for, building, and stewarding multi-use trails on the Angeles National Forest (ANF) since 1986. The ANF spans over 700,000 acres and, as an urban national forest, provides backcountry access to the millions of diverse inhabitants of Los Angeles. As one of two non-profit, volunteer-led organizations primarily responsible for stewarding ANF front- and backcountry trails, MWBA partners with the USDA Forest Service to fund trail work. Here we present a case study of completed restoration on Valley Forge Trail following the 2020 Bobcat Fire. The restoration project utilized a Challenge Cost Share Agreement with the USFS and successfully restored the 3 miles of trail over a 27-month period, and this model is currently being deployed to restore trails impacted by the 2025 Eaton Fire.

*Additional people involved in the presentation, if any*

Carson Blaker, Board Director, Mount Wilson Bicycling Association  
Bart Bombay, Board Director, Mount Wilson Bicycling Association  
Andrew Hunter, Board Director, Mount Wilson Bicycling Association  
Alex Keller, Board Secretary, Mount Wilson Bicycling Association  
Daniel Lichtenstein, Board Director, Mount Wilson Bicycling Association  
Ester Song, Board Vice President, Mount Wilson Bicycling Association  
Jay Marion, Board President, Mount Wilson Bicycling Association

Present a Paper

Michael

Childers

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**What is the Purpose of the National Parks? Teaching History of America’s National Parks**

*One-sentence summary*

Understand how we approach teaching about the National Parks

*Abstract*

I begin my History of America’s National Parks course with the deceptively simple question: What is the purpose of national parks? Students usually respond with answers centered around conservation or the preservation of natural resources. In my class I guide them through a diverse set of historical reports, articles, and other sources that present a range of perspectives on the purpose and management of the parks. This broadens and complicates student’s understanding, and ultimately challenging and refining their response to the course’s central question.

*Additional people involved in the presentation, if any*

This paper is a part of the panel proposal organized by Michael Pretes and Randal Wilson entitled "Teaching About National Parks.

Present a Paper

Madaline

Cochrane

Post-doctoral researcher

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**NPS-led amphibian monitoring evaluates responses to climate and identifies refugia**

*One-sentence summary*

Attendees will better understand how NPS lands facilitate our understanding of amphibians threats and help mitigate them.

*Abstract*

Amphibians have declined dramatically in the last few decades. To better understand the drivers of this decline and identify key refugia to conserve amphibian biodiversity, we are synthesizing long-term amphibian monitoring data from across the NPS Inventory and Monitoring Division. Using multi-species occupancy models and 20+ year datasets, we can make forecasts about future amphibian distributions and identify key NPS refugia given increasing drought intensity and frequency. This synthesis will also provide recommendations for how to improve efficiency and effectiveness across monitoring programs, with the goal to facilitate future continental-scale analyses.

*Additional people involved in the presentation, if any*

Andrew Ray, project manager/researcher (NCCN I&M Network Program Manager)  
Blake Hossack, project manager/researcher (USGS Research Zoologist)  
Lisa Eby, project manager/researcher (University of Montana Professor)

Present a Paper

Regan

Coyne

Volunteer and Program Development Lead

University of Alberta

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Managing the Great Divide Trail

One-sentence summary

Attendees will learn about the challenges of the Great Divide Trail system and the need for collaboration to overcome jurisdictional boundaries.

Abstract

Land managers face significant challenges in balancing ecological integrity with recreational access. This is particularly evident along the Great Divide Trail (GDT), a long-distance backcountry hiking path that spans 24 jurisdictions across two provinces in Canada. Each agency involved has its own approach to managing ecological health and recreational use. Examining their strategies for conserving land, wildlife, and waterways along the Trail reveals how they navigate the dual goals of ecological protection and recreational support. Understanding these approaches can provide valuable lessons for optimizing both recreation and ecological outcomes, ultimately guiding efforts to harmonize the often competing demands of recreation and ecology in linear backcountry environments.

Additional people involved in the presentation, if any

Organize an Information-Sharing Session: Invited Papers

Amanda

Cravens

Research Social Scientist

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**Navigating ecological transformations: Social Aspects of Resist-Accept-Direct (RAD) decisions**

*One-sentence summary*

Attendees will better understand the RAD Framework and how it is being used by managers to navigate climatic and ecological change.

*Abstract*

The RAD framework helps managers respond to climate change and navigate transforming ecosystems by defining a broad decision space that includes resisting ecological trajectories, consciously accepting such change, and directing trajectories towards preferred new conditions. RAD is intended to help managers intentionally expand their thinking beyond traditional approaches. Recent interdisciplinary and cross-agency research has integrated social sciences to explore how and why managers are making RAD decisions. This session will highlight findings and implications from five papers at the forefront of RAD research, including how RAD: 1) fits within broader agency adaptation planning, 2) can inform wilderness management, 3) is being used by managers within and across jurisdictions, and 4) raises ethical questions.

*Additional people involved in the presentation, if any*

Session co-organizers:

Jaclyn Rushing, Social Scientist, Aldo Leopold Wilderness Research Institute, Rocky Mountain Research Station, USDA Forest Service

Papers and Presenters:

Paper 1: Setting the stage: Putting RAD in the broader context of agency adaptation (based on paper under review at *Frontiers in Ecology and the Environment*) / Presenter TBA

Paper 2: Engaging with RAD across jurisdictions in the Missoula Valley

- o Presenter(s): Caroline Bean, Ph.D. candidate, University of Montana and Laurie Yung, Professor of Natural Resource Social Science, University of Montana

Paper 3: RAD in Wilderness

- o Presenter(s): Jaclyn Rushing and/or Kira Hefty (session co-organizers)

Paper 4: Psychological factors and emotions in RAD decision making

- o Presenter(s): Amanda Cravens (session organizer) and Julia Goolsby, Ph.D. student, Cornell University

Paper 5: RAD Ethics (currently under review at *People and Nature*)

- o Presenter(s): Christopher Preston, Professor of Philosophy, University of Montana



Present a Paper

Morgan

Crump

Postdoctoral Researcher

University of Vermont

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**Visitor Impacts and Experiences Related to Roadside Wildlife Viewing in Yellowstone National Park**

*One-sentence summary*

Attendees will better understand wildlife viewer behaviors in Yellowstone NP and how they may inform management for roadside wildlife encounters.

*Abstract*

As visitation to national parks increases, so does interest in viewing wildlife, particularly in high-profile destinations like Yellowstone National Park. Encounters with charismatic megafauna are sought after and serve as motivators for visitors. This trend has brought increased attention to how visitor interactions impact wildlife behaviors and visitor experiences. As visitors flock to PPAs, the need to understand the effects of wildlife encounters on animal behavior and ecosystem health grows. This study draws on a 2025 roadside visitor study conducted at official and unofficial vehicle pull-offs in the Lamar Valley. We examine the perceptions and behaviors of visitors actively viewing wildlife. Findings aim to inform management strategies that support both wildlife protection and high-quality visitor experiences.

*Additional people involved in the presentation, if any*

Morgan Crump<sup>1,2</sup>, Derrick Taff<sup>2</sup>, Stephanie Freeman<sup>3</sup>, Lauren Miller<sup>4</sup>, and Peter Newman<sup>1</sup>  
<sup>1</sup> Rubenstein School of the Environment and Natural Resources, University of Vermont  
<sup>2</sup> Department of Recreation, Park, and Tourism Management, Pennsylvania State University  
<sup>3</sup> South Dakota Game, Fish, and Parks  
<sup>4</sup> U.S. Fish and Wildlife Services

Present a Paper

Chloe

Czachor

Big Sky Watershed Corps Member

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**Protecting the waters of Montana through a Pesticide Stewardship Partnership Program**

*One-sentence summary*

Attendees/audience members will gain a greater awareness of why monitoring of pesticide concentrations in surface waters is crucial in Montana.

*Abstract*

Water quality monitoring is essential for assessing ecosystem health, detecting environmental changes, and keeping Montana’s waters clean and clear for all. Pesticide pollution of surface and groundwaters from populated areas, agriculture, and other human sources is a threat to water quality and can have far reaching impacts on human and ecosystem health. However, there is very little existing baseline data on pesticide concentrations in Montana’s waters, so the magnitude of the problem is unknowable. The Montana Pesticide Stewardship Partnership Program (MT PSPP) aims to address that gap and reduce pesticide pollution through water quality monitoring, community education and engagement, and activities that improve water quality in the upper Columbia River Basin (CRB). We will share our program goals, progress and opportunities to engage.

*Additional people involved in the presentation, if any*

Dr. Rachel Malison, Assistant Research Professor, Principal Investigator for the Pesticide Stewardship Partnership Program, Flathead Lake Biological Station

Janelle Groff, Research Coordinator for the Montana Pesticide Stewardship Partnership Program, Flathead Lake Biological Station

Participate in the 3MR (Three-Minute Research Competition)

Juia

Daniell

Master's Student

University of Montana

Missoula

MT

United States

julia.daniell@umontana.edu

**Proceeding with Sound Judgment: Applied Sensory Biology and Wilderness Character**

*One-sentence summary*

Attendees will have a more holistic understanding of the impacts of outdoor recreation and visitation on ecosystems and visitor experiences.

*Abstract*

This presentation explores the impacts of recreational sound on wildlife behavior and movement. Soundscapes provide vital information for wildlife and humans alike: every known vertebrate species utilizes sound to survey its surroundings. Despite the growing number of visitors to U.S. parks and protected areas, the importance of soundscapes to wildlife and to visitors remains understudied. This thesis examines how mammals may habituate to these sounds through experimental fieldwork conducted in Bridger-Teton National Forest utilizing sound-simulated “trails” and building on the methodology of Zeller et al. (2024). The findings of this study may aid land managers in making informed decisions on trail use, area closures, and permissions for motorized travel to help maintain the integrity and safety of the ecosystems they oversee.

*Additional people involved in the presentation, if any*

Organize an Information-Sharing Session: Invited Papers

Juia

Daniell

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Wild, Bright, and Noisy: Exploring subtle "footprints" of recreation

One-sentence summary

Attendees will have a more holistic understanding of the impacts of outdoor recreation and visitation on ecosystems and visitor experiences.

Abstract

This organized session explores the less obvious impacts of outdoor recreation on ecosystems, wildlife, and visitor experiences in the U.S. parks and protected areas. Through a mixture of methodologies and disciplines this session examines the effects of sensory pollutants—such as noise and light—and spatiotemporal recreation fluctuations on humans and wildlife. Dr. Newman will provide a synthesis of twenty years of research on sensory pollution in protected areas, while Dr. Taff and Dr. Crump focus on specific park units, Great Smoky Mountains and Acadia National Parks, respectively. Both Cronin and Daniell’s work was conducted in the Greater Yellowstone Ecosystem. Together, these studies underscore the importance of developing effective strategies for balancing recreation with conservation.

Additional people involved in the presentation, if any

Julia Daniell, University of Montana. "Proceeding with Sound Judgment: Applied Sensory Biology and Wilderness Character." This study builds on previous research to examine how large mammals in Bridger-Teton National Forest may habituate to recreational sounds, offering insights for land management decisions to protect ecosystem integrity and visitor experiences.

Dr. Peter Newman, Pennsylvania State University, University of Vermont. "Sensory Pollutants in U.S. Parks and Protected Areas: A synthesis of visitor use management in relation to natural sounds and night skies." This presentation will be a review of research conducted in U.S. parks and protected areas over the last two decades with a focus on work conducted in collaboration with the National Park Service- Natural Sounds and Night Skies Division.

Morgan Crump, Pennsylvania State University, University of Vermont. "Exploring visitor support for management of artificial light and behavioral spillover in Acadia National Park and related ecological impacts." This project examines visitor perceptions, expectations, and support for natural night skies in Acadia National Park.

Dr. Derrick Taff, Pennsylvania State University. "Exploring NPS staff perceptions of artificial light in Great Smoky Mountains National Park- Functionality, Safety, and Conservation." This project focused on understanding National Park Service staff perceptions of artificial light at night in maintenance yards of Great Smoky Mountains National Park. (Presented by Morgan Crump)

Kelsey Cronin, University of Montana. "Managing Human Disturbance: Mandatory Closures and Loon Nest Success in the GYE. This presentation outlines preliminary investigation into recreational closures and loon nest success in the GYE.  
Katherine Zeller, USFS

Present a Paper

Curt

Davidson

Assistant Professor

Utah State University

Laramie

WY

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Urban Trails, Wild Spaces: A Model for Sustainable Recreation in Redmond, Oregon

One-sentence summary

Attendees/audience members will

Abstract

This paper presents findings from a mixed-methods study of the Dry Canyon Park and Trail System in Redmond, Oregon—a unique linear greenway integrating natural and urban environments. As Redmond experiences rapid growth, this trail system is critical in supporting active transportation, ecological preservation, and community well-being. Through 338 user surveys and interviews, the study identifies user preferences, safety concerns, and infrastructure needs. Results directly informed Redmond’s 2024 Parks Master Plan, demonstrating how participatory research can shape inclusive, sustainable conservation strategies for urban green spaces.

Additional people involved in the presentation, if any

Alan Ewert Ph.D. Professor Emeritus, Indiana University  
Maria Ramirez. Special Projects and Natural Resource Program Manager. City of Redmond, OR

Organize an Information-Sharing Session: Invited Papers

Shawn

Davis

Associate Professor

Slippery Rock University

Slippery Rock

PA

United States

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National Park and Wildlife Refuge Visitor Perceptions of Climate Change

One-sentence summary

Attendees/audience members will better understand national park and wildlife refuge visitors' perceptions of climate change.

Abstract

National Park and Wildlife Refuge Visitor Perceptions of Climate Change will be an information sharing session based off of four related invited paper presentations. Based on the theme of responding to climate change, each of the four papers will cover a different aspect of a comprehensive survey effort of 20 different national parks and 12 different national wildlife refuges during the spring and summer of 2025. The survey investigated visitor's perceptions of climate change for use in designing interpretive/educational programs within these protected areas. Messaging and educational strategies, along with potential changes in visitation due to climate change, will be shared at both agency and regional levels.

Additional people involved in the presentation, if any

Co-organizer: Jessica Thompson, Professor, Northern Michigan University

Paper 1: The Six Americas of National Parks and Wildlife Refuges / Shawn Davis, Associate Professor, Slippery Rock University

Paper 2: Climate Change Impacts, Adaptation, and Visitor Behavior / Rosie Mousseau, Graduate Student, Northern Michigan University

Paper 3: Climate Change Messaging Strategies for Parks and Refuges / Mackenzie Geary, Northern Michigan University

Paper 4: Visitors' Perceptions of Climate Change in National Parks & Wildlife Refuges / Sam Kearney & Carson Piette, Northern Michigan University

Present a Poster

Katie

Deuel

Senior Conservation Director

Center for Large Landscapes Conservation

Missoula

MT

kdeuel@largelandscapes.org

**A Road Runs Through It: Assessing Road Mitigation Options for Wildlife in Kafue National Park and Greater Kafue Ecosystem, Zambia**

*One-sentence summary*

Attendees/audience members will learn about an unique and effective methodology to study road impacts and the important results of the study.

*Abstract*

The M9 highway through Zambia’s Kafue National Park is an important and busy roadway for motorists but for many animals, it’s also a dangerous barrier. The Center for Large Landscape Conservation partnered with the Zambian Carnivore Programme on a road assessment to understand exactly where and how this road is putting wildlife at risk from collisions and habitat fragmentation. Our poster details the study and the results.

*Additional people involved in the presentation, if any*

Present a Paper

Mark

Douglas

Assistant Professor of Outdoor Recreation Management

Davis & Elkins College

Elkins

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United States

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**Hyper Reality in Wall-E and Modern Life: Outdoor Recreation Management Implications**

*One-sentence summary*

Attendees/audiences explore Wall-E's parallels with modern society, gaining insights to enhance outdoor recreation management and outreach strategies.

*Abstract*

This paper examines the dynamics depicted in the animated film Wall-E (Stanton, 2008) and their parallels in contemporary society, focusing on implications for outdoor recreation management. By employing existential methodology and cultural touchstones, the study cross-references these dynamics with Albert Borgmann's theories of hyper reality and the device paradigm. Additionally, the paper covers connections between escapism, efforts to colonize space, the role of AI in overriding authority, and the impact of consumerism on meaningful connections. The findings highlight the potential of outdoor recreation to counteract these negative dynamics and suggest strategies for leveraging cultural touchstones in messaging and outreach to promote outdoor activities.

*Additional people involved in the presentation, if any*

The lead author for this paper is myself, Mark L. Douglas. The second author is Winifred Mayes, Undergraduate student at Davis & Elkins College.



Present a Paper

Jazzelle

Elias

Master's Student

University of Montana

Missoula

Mo

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**Prescribed Fire Decision-Making: Implications for Parks and Protected Areas**

*One-sentence summary*

Attendees/audience members will

*Abstract*

Wildfire research in parks and protected areas has focused on negative impacts to people, recreation, and local economies. Emerging work calls for a shift from wildfire magnitude (size/intensity) to perceptions of mitigation strategies like prescribed fire. Prescribed fire is a key tool to reduce wildfire encroachment and protect lives and valued places. To understand how to increase prescribed fire use in and around protected areas, more research is needed on how decisions are made about when and where to burn. In-depth interviews with fire managers in western Montana explored what constrains and supports decision-making. Over 20 interviews were transcribed, coded, and analyzed. Findings show a desire and need for cross-boundary decision-making among organizations and agencies to increase the use and effectiveness of prescribed fire.

*Additional people involved in the presentation, if any*

Present a Paper

Mary

Engels

Assistant Professor

University of Idaho

Moscow

Idah

United States

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**The cleanup crew: valuing camp host litter interventions in Northern Idaho recreation areas**

*One-sentence summary*

Attendees/audience members will better understand the problem of litter in recreation areas, and the importance of camp hosts in managing that issue.

*Abstract*

Litter cleanup poses a financial burden for recreation management organizations. The increased demand for outdoor recreation opportunities, especially since the COVID-19 pandemic, exacerbates litter management problems. Here we present a study that characterized litter from four State Parks and one National Forest in Northern Idaho during the summer of 2021. Litter data collected with the help of volunteer camp hosts indicates that, at a minimum, >50% of all litter generated in the campgrounds is controlled by camp hosts. We estimate that across 12 of the campgrounds in our study, camp hosts saved management more than \$50,000 in litter collection costs. Since this litter is dominantly composed of plastic (>75%), controlling this litter not only improves camper experience but reduces environmental impact from this long-lived pollutant.

*Additional people involved in the presentation, if any*

Present a Paper

Hilary

Faxon

Assistant Professor of Environmental Social Science

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hilary.faxon@umontana.edu

**Global Biodiversity Data for Place-Based Conservation**

*One-sentence summary*

Attendees/audience members will better understand how social factors shape open-source biodiversity data, and the consequences for conservation.

*Abstract*

With over 2 billion species observations, the Global Biodiversity Information Facility (GBIF) increasingly influences understanding of the natural world and guides conservation planning. But the data in this repository reveal more than biodiversity distributions: they reflect the legacies of colonial collecting, the infrastructures of international development, and contemporary cultures of political freedom. This paper draws on ongoing mixed methods research, including quantitative and spatial analysis of GBIF data and interviews with staff and data publishers around the world, to highlight key findings with relevance to parks stewardship. These include the drivers and consequences of private companies as contributors of open-source biodiversity data and the challenges and opportunities of GBIF data for subnational conservation planning.

*Additional people involved in the presentation, if any*

Ande Peersen, Masters's student, University of Montana  
Kyle Barbian, Undergraduate student, University of Montana  
Melissa Chapman, Assistant Professor of Environmental Policy, ETH Zurich

Present a Poster

Paige

Fery

PhD Candidate

University of Utah

Salt Lake City

UT

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**Connections to Nature and Knowledge: An Ecofeminist Analysis of Fly-Fishing Guiding**

*One-sentence summary*

Attendees/audience members will better understand how colonial, patriarchal, and capitalistic power structures shape outdoor recreation.

*Abstract*

Nature is political. The ways in which we have conceptualized nature and outdoor recreation are rooted in systems of power such as capitalism, colonialism, and patriarchy. To explore how power structures shape outdoor recreation experiences, a feminist embodied approach to narrative inquiry was utilized to explore the subjective experiences of fly-fishing guides (n=6) and their connections with nature and knowledge. Data were analyzed through a two-phased approach including the application of thematic analysis and an a priori coding scheme developed from ecofeminism. Initial findings reveal that knowledge sharing is a critical component for how guides gain knowledge and connect with others and nature. This research provides insights into the ways in which societal power structures are mirrored in nature-society relations.

*Additional people involved in the presentation, if any*

Jeff Rose, University of Utah

Organize a Core Workshop Session: Presentations + Audience Interaction

Nicholas

Fisichelli

President & CEO

Schoodic Institute

Winter Harbor

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Adapting to rapid change – on the ground and in the water

One-sentence summary

Attendees/audience members will learn from panelists and one another on how to integrate science and management into the response to rapid change.

Abstract

Stewarding park resources in the midst of rapid change is a critical conservation challenge today. There has been a proliferation of decision support tools, frameworks, and associated best practices for responding to rapid change. Yet, empirical evidence for on-the-ground and in-the-water adaptation solutions is sorely lacking, and the pace of change in parks is outpacing the ability of managers and scientists to respond. Come hear from leading scientists and practitioners who are testing the solutions and advancing the leading edge of adaptation. Share your experiences, perspectives, and questions in this interactive session and build your network.

Additional people involved in the presentation, if any

Presenters/Panelists:

Chris Nadeau, PhD  
Senior Scientist  
Schoodic Institute

Mark J. Biel  
Natural Resources Program Manager  
National Park Service, Glacier National Park

Organize an Information-Sharing Session: Sharing Circle

Brian

Forist

Senior Lecturer-Parks, Recreation, & the Outdoors

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**LGBTQIA2S+ Stories and Experiences in Place: Creating a Virtual Community for Learning & Support**

*One-sentence summary*

LGBTQIA2S+ folks will leave knowing they are part of and a potential designer of a supportive community dedicated to ongoing learning and support.

*Abstract*

We are living through extraordinary and trying times in the U. S. and beyond. A variety of conditions pose significant challenges to LGBTQIA2S+ folks involved in place-based conservation and adjacent fields. By federal executive orders, discriminatory laws, internal policies, and actions taken by states, municipalities, non-governmental organizations, and businesses there has been a calculated and deliberate marginalization and disappearing of LGBTQIA2S+ voices and experience. To counter this, a virtual community for Queer folks in the field is proposed. Participants in this sharing circle will be asked to articulate their needs in the intersecting arenas of learning and support. Initial plans for this virtual community will be shared and thoughts on its future format, content, and individual roles in its design will be discussed by all.

*Additional people involved in the presentation, if any*

Organize an Information-Sharing Session: Sharing Circle

Miranda

Foster

Graduate Research Assistant

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Focus Group for Updates to Digital Wilderness Management Educational Resources

One-sentence summary

Attendees will learn about Wilderness Connect and its Toolboxes for wilderness management and assist on-going efforts to improve the resource.

Abstract

This sharing session will present Wilderness Connect, an interagency website and an authority for wilderness-related information. The site hosts a variety of toolboxes aimed at supporting practitioners and serves as a virtual repository for information sharing, skills, and practices related to various dimensions of wilderness management such as fire management, cultural resources, soundscapes, and partnerships. Through active audience feedback and guided discussion, this session seeks to identify any needs, limitations, and opportunities to improve the format, content, and breadth of the Wilderness Connect toolboxes. The insight gained will inform further applied research aimed to improve the existing toolboxes to best serve interagency wilderness managers and stewards amidst the evolving dynamics of federal land administration.

Additional people involved in the presentation, if any

Session Co-Organizers: Jaclyn Rushing, Heidi Blair, Andrew Larson, Miranda Foster

Participate in the 3MR (Three-Minute Research Competition)

Miranda

Foster

Graduate Research Assistant

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**Visual Semiotics in Parks: Assessing Pictorial Symbol Effectiveness in Outdoor Recreation Settings**

*One-sentence summary*

The audience will gain insight into the power and limitations of symbol-based communication in outdoor recreation settings.

*Abstract*

Interest in outdoor recreation continues to grow, bringing new and diverse recreationists to parks and protected areas. With this comes a challenge: how do we ensure the accessibility and safety of these spaces for everyone through clear, effective communication? One path for achieving this is through design. Symbol signs are meant to communicate across language barriers, but their effectiveness in outdoor recreation settings is understudied. Using mixed methodology, this research evaluated the comprehensibility and strength of design characteristics for symbol signs used in campground settings. Results informed an iterative redesign process to improve the effectiveness of symbols with evidenced low comprehension. This project aims to assist land managers in operationalizing access through evidence-based visual communication tools.

*Additional people involved in the presentation, if any*



Present a Paper

Jaclyn

Fox Rushing

Affiliate Faculty

University of Montana

Missoula

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United States

[jaclyn.rushing@umontana.edu](mailto:jaclyn.rushing@umontana.edu)

**"It's a different culture here": Fostering inclusive recreation through affinity safe spaces**

*One-sentence summary*

Attendees/audience members will better understand ways to enhance recreation relevance and inclusivity.

*Abstract*

This study explores what makes outdoor recreation feel exclusive for underserved communities, and how affinity groups—grassroots organizations created to support outdoor recreation for underserved communities—foster a more inclusive way to engage in outdoor recreation. Data were collected through semi-structured interviews with affinity group participants across the Northwestern U.S. Results indicate that participants perceive the dominant recreation culture as raced, gendered and exclusive. Through some separation from the dominant recreation culture, affinity groups act as safe spaces that support diverse and authentic ways of engaging in community-based recreation. Findings from this research have important implications for recreation providers who seek to foster inclusive spaces in the facilities and lands they manage.

*Additional people involved in the presentation, if any*

Participate in the 3MR (Three-Minute Research Competition)

Abigail

Fuesler

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**Electrifying Perspectives: Cyclist Perspectives Concerning E-Bikes on Multi-Use Singletrack**

*One-sentence summary*

Attendees/audience members will learn about perceptions held toward e-bikes in Missoula, MT.

*Abstract*

Electric mountain bikes are increasingly popular among cyclists, yet, given federal and state policy restrictions on these bikes, they are rarely permitted on singletrack trails. Recognizing this opportunity, a multi-use trail network in Missoula, MT conducted a visitor use survey to gauge e-bike sentiment and determine whether to pilot e-bike access. This presentation will contain preliminary results, recommendations to policymakers and land managers, and suggested directions for future research.

*Additional people involved in the presentation, if any*

Present a Paper

Seth

Gibbons

STEAM Director NC State Museum

NC Museums

Mt Airy

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**Building a Community of Conservation: Inviting the Public to Participate in Wildlife Research**

*One-sentence summary*

Attendees/audience members will understand the difference between citizen science and participation with wildlife research, and potential outcomes.

*Abstract*

Wildlife research may have the potential to build public engagement in wildlife science. In the Spring of 2019, a research project was conducted by a Clemson University graduate student which involved the capturing barred owls and attaching GPS transmitters in order to investigate what features facilitate their presence in developed areas. The project had a public involvement component which consisted of capturing the owls on private property and inviting landowners and other members of the community to observe and interact with the owls. In 2023 semi-structured interviews were performed with participants in the project to understand how their participation affected their feelings of connection to the owls four years later. Results indicated a continued research community operating and deep connections to the owls life.

*Additional people involved in the presentation, if any*

Elizabeth D. Baldwin, co-author, co-presenter  
Kyle Barrett, co-author  
Aby Sene-Harper, co-author  
Corliss Outlley, co-author

Present a Paper

Devin

Goodson

PhD Student

Program in Ecology, Evolution, and Conservation Biology, University of Illinois at Urbana-Champaign

Urbana

Illin

United States

devinjd3@illinois.edu

**Friend or Foe? Understanding the Spatial Distribution of Benefits and Burdens Provided by Urban Birds**

*One-sentence summary*

Attendees/audience members will better understand human-bird interactions and social-ecological strategies to foster coexistence in urban greenspaces.

*Abstract*

Managing public urban greenspaces to foster coexistence between people and birds is challenging, requiring decision-makers to understand nature’s diverse benefits and burdens. Therefore, we aimed to (1) explore the perceived qualities and impacts of urban birds, (2) evaluate the importance of bird-derived benefits and burdens for residents, and (3) identify spatially explicit places for human-bird interactions. Using focus groups and a household survey, we engaged diverse residents across twin cities in the Midwestern USA. Spatial data generated from residents were modeled with landcover, distance to public lands, and bird diversity. From our social-ecological analysis, we identified high and low-priority greenspaces to promote positive coexistence. Our findings aim to guide local management decisions based on social-ecological dynamics.

*Additional people involved in the presentation, if any*

Carena J. van Riper 1, 2  
Henry Pollock 3  
Mark E. Hauber 1,4

1 Program in Ecology, Evolution, and Conservation Biology, University of Illinois at Urbana-Champaign, Urbana, IL 61801, USA

2 Department of Natural Resources and Environmental Sciences, University of Illinois at Urbana-Champaign, Urbana, IL 61801, USA

3 Southern Plains Land Trust, Lamar, Colorado, USA

4 Advanced Science Research Center and Programs in Biology and in Psychology, Graduate Center of the City University of New York, New York, NY 10031, USA

Present a Poster

Tabitha

Graves

Research Ecologist

U.S. Geological Survey

West Glacier

MT

tgraves@usgs.gov

**Assessing pollinator communities in national parks**

*One-sentence summary*

Attendees/audience members will learn how effective multiple potential approaches are for gaining baseline and monitoring information on pollinators.

*Abstract*

Biologists struggle to achieve multiple research goals given limited time and budgets. We evaluated field and analytical tools to improve efficiency of surveys for insect community diversity and species of concern, which would allow managers to meet multiple goals with less field effort. Our team has assessed techniques including using photographs, visual-only surveys, eDNA from flowers, and a range of statistical designs to obtain robust assessments using minimally invasive approaches. Such approaches can be used to provide basic status information, inform ecological questions useful for conservation, and evaluate effects of management actions. These options provide managers with tools suited for engaging community scientists, require limited training, and simultaneously meet multiple goals efficiently.

*Additional people involved in the presentation, if any*

Eliza Stein, Contractor to the U.S. Geological Survey  
Gavin Cotterill, U.S. Geological Survey  
Will Janousek, U.S. Geological Survey  
Annie Colgan, University of Washington  
Erica Gustilo, University of Washington  
Michaela Grossklaus, U.S. Geological Survey  
Marissa Kaminski, U.S. Geological Survey  
Yer Lor, U.S. Geological Survey  
Stephen Spear, U.S. Geological Survey  
Clint Otto, U.S. Geological Survey  
Ralph Grundel, U.S. Geological Survey  
Amy Dolan, Xerces Society  
Rich Hatfield, Xerces Society  
Tara Carolin, Glacier National Park  
David Pilliod, U.S. Geological Survey

Present a Paper

Amber

Hawes

MS student (current) / PhD student (fall)

University of Idaho

Central

SC

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**Do Themes Improve Visitor Outcomes In Interpretive Programs?**

*One-sentence summary*

Attendees/audience members will be able to better enhance visitor satisfaction, appreciation, relevance, stewardship intentions, and more.

*Abstract*

Thematic interpretation is widely promoted as being integral to an effective interpretive program. Some studies have suggested it may enhance visitor outcomes; however, park visitor demographics and expectations have changed over the past decade. In this study, we systematically observed live interpretive programs at 331 National Parks across the US, monitored the extent and qualities of theme usage, and collected visitor surveys. The results suggest that programs with a clearly-communicated and well-developed theme enhance satisfaction, appreciation, personal and societal relevance, stewardship intentions, respect for others, and interpersonal relationships. These results have implications for training and how interpreters develop and deliver interpretive programs to maximize visitor outcomes in natural and cultural interpretive spaces.

*Additional people involved in the presentation, if any*

Robert B. Powell, Ph.D. (Clemson University) - author, but not attending  
Marc Stern, Ph.D. (Virginia Tech) - author, but not attending  
Kelley Anderson, Ph.D. (Virginia Tech) - author, but not attending

Present a Poster

Tom

Heinlein

Bureau of Land Management

Grand Junction

CO

United States

Multiple Use and Sustained Yield and the BLM’s National Landscape Conservation System

One-sentence summary

Attendees will understand core facts, purpose, scope and scale of BLM’s National Landscape Conservation System during its 25th anniversary year.

Abstract

The Bureau of Land Management's multiple use and sustained yield mission, as defined in the Federal Land Policy and Management Act, was an important consideration when the National Landscape Conservation System was established. These BLM conservation areas that are designated by Congress or the President, allow for a wide range of uses—including recreation, grazing, scientific research, active habitat restoration, and other activities associated with working lands—to continue so long as they are consistent with the specific uses found in the legislation or proclamation establishing the unit. For ranchers, recreationists, and others, the NLCS offers a reimagined approach to collaborative conservation. This poster will highlight examples of how the Bureau melds conservation designations with its multiple use and sustained yield mission.

Additional people involved in the presentation, if any

- Fritz Klasner
- Suzanne Copping
- James Sippel
- Britta Nelson
- Matt Magaletti
- Peter Keller

Present a Paper

Paul

Heintzman

Professor

University of Ottawa

Ottawa

Ont

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pheintzm@uottawa.ca

**An Updated Model of Park Experience and Spiritual Outcomes**

*One-sentence summary*

Attendees will learn about the spiritual outcomes of park experience, the factors that contribute to them, and the implications for park management.

*Abstract*

In recent years there has been increasing research on the spiritual outcomes of park experience. This presentation updates a decade-old model that summarizes and synthesizes extant empirical research on these outcomes. Antecedent conditions (personal history, current circumstances, attitude, motivation, socio-demographic characteristics, spiritual tradition), setting components (being in nature, being away to a different environment, place processes such as place attachment and place meanings) and recreation components (activity, free time, solitude, group experiences, facilitation) together lead to outcomes of spiritual experiences, spiritual well-being, and leisure spiritual coping. This up-to-date model describes the complexity of the park experience and spirituality relationship. Implications for park management are discussed.

*Additional people involved in the presentation, if any*



Present a Paper

Greta

Helfenstein

Recent graduate of Eastern Washington University and  
Historical Research Assistant to Professor Bill Youngs

Historical Projects LLC

Newman Lake

Was

United States

gretahelfenstein123@gmail.com

**Planting the Seeds: The Roots of Modern Forest Conservation in Colonial America**

*One-sentence summary*

Audience members will learn about the origins of forest preservation law in the United States and the history of the wilderness conservation ethic.

*Abstract*

The beginnings of forest conservation law in the United States are usually associated with the 19th and 20th centuries, around the founding of our first National Parks. However, there is evidence that a wilderness conservation ethic existed much earlier. Contrary to the perceptions of Colonial America as a time when people viewed resources as limitless, many colonies were concerned about protecting the resources they encountered. Plymouth Colony (1626) and Pennsylvania (1681) both wrote laws to protect their forests, preventing excessive cutting and unauthorized burning. These colonial policies set the precedent for modern forest conservation by balancing resource use and preservation.

*Additional people involved in the presentation, if any*

Organize an Information-Sharing Session: Affinity Group Meeting

Cait

Henry

Associate Researcher

Michigan State University

East Lansing

MI

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**LGBTQIA+: Fostering Community by Sharing Faced Challenges and Successes –Working Group soft launch**

*One-sentence summary*

Attendees will (re)build an inspired community between like-minded individuals who exist outside the dominant heterogeneous, cisgender identity.

*Abstract*

The LGBTQIA+ Experiences and Expertise in the Outdoors and in Conservation special issue of the Park Stewardship Forum inspired the creation of both this affinity meeting and a LGBTQIA+ working group within the George Meléndez Wright Society, which will be softly launched at this affinity meeting. There is a growing need for safe spaces for queer folks who are passionate about public lands conservation that is not directly tied to federal institutions. Although the LGBT Outdoor Summit has witnessed five successful events, multiple participants have expressed interest in continued community connections that also offer a wider scope of networking. This is especially critical in a time under the current U.S. administration. The vision for this Affinity Meeting is that it would become a longstanding component within future GWS ParkForums.

*Additional people involved in the presentation, if any*

Dr. Brian Forist of Indiana University is the co-lead of the GWS LGBTQIA2S+ working group

Present a Poster

Cait

Henry

Associate Researcher

Michigan State University

East Lansing

MI

Henryca8@msu.edu

**Loved to Death: Evaluating degraded areas along the Manistee River Trail**

*One-sentence summary*

Highly used and degraded areas require high levels of management action to ensure sustainable trail systems for current and future generations.

*Abstract*

The purpose of this poster is to share findings of the onsite recreation ecology impacts to the Manistee River Trail within the Huron-Manistee National Forest Trail System. Findings include myriad areas of high degradation like informal campsites and trails, eroded trail sections, and other general problem areas. This project is in its final stages of technical report writing and will provide an outside audience with site-specific insights that can be applied to other highly degraded trail sections.

*Additional people involved in the presentation, if any*

Drs. Dan McCole and Elizabeth Perry, Michigan State University

Madison Jones, University of Tennessee (M.S.)

Present a Paper

Cait

Henry

Associate Researcher

Michigan State University

East Lansing

MI

United States

Henryca8@msu.edu

**Repetitive Compulsions of Trauma: Perpetuating White Masculinity at U.S. Civil War Battlefields**

*One-sentence summary*

The audience members will better understand why traditional battlefield interpretation in the United States needs to be reevaluated for ethical use.

*Abstract*

This work aims to critically analyze the confluence between the cultural authority of the NPS and collective memories of the U.S. Civil War through Manassas National Battlefield Park (MANA) interpretation. Operationalizing trauma as repeated violent acts within public spaces, we posit that the normalization of violence partially stems from the glorification of heroic white masculinity at Civil War battlefield sites—especially those which celebrate the Confederacy. International battlefields are utilized as examples for expanding interpretation at MANA to foster narratives of empathy and responsibility within an increasingly contentious political landscape. Visitors do not leave MANA with answers about the social and moral implications of the U. S. Civil War, but the tools for championing their own (predominantly white) heroic masculinity.

*Additional people involved in the presentation, if any*

Sarah Jackson at Kansas State University is the co-author of this paper presentation.

Present a Paper

Cait M.

Henry

Associate Researcher

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**Companion displacement as a novel social dimension of recreation adaptation coping mechanisms**

*One-sentence summary*

Attendees/audience members will explore a social component to displacement and its implications for protected area relevance and stewardship.

*Abstract*

Encountering undesirable site conditions may impede a recreationist’s ability to attain desired outcomes, leading to coping behaviors including displacement. Displacement has been studied in relation to influential site social conditions yet in notably asocial terms: spatial, temporal, activity, and total displacement. We present evidence across multiple, diverse protected areas studies for a fifth type of displacement speaking to social adaptations: companion displacement or changing group composition in response to site conditions. There is opportunity to examine how group composition may change or otherwise influence displacement types and correspondingly influence decisions about providing site information, understanding displacement characteristics (who, where, when, what, and with whom), and considering shifts in recreation demand.

*Additional people involved in the presentation, if any*

Elizabeth Perry, Michigan State University

Organize a Core Workshop Session: Presentations + Audience Interaction

Fred

Herling

Retired; currently on the GWS Board (and serving as GWS President)

George Wright Society

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Strengthening the partnership between GWS and students/young professionals in 2025 and beyond

One-sentence summary

Session outcome: develop priority actions to advance GWS improvements that support students/young professionals involved in conservation.

Abstract

The George Wright Society is re-evaluating its programs aimed at students and people at the beginning of their careers. This listening and discussion session will play an important role in the meaningful refocusing of how the GWS can best support students and young professionals. Developing and taking action on strategies is especially important in light of the many unprecedented, harmful actions of the current US federal administration. GWS and session participants can play a leadership role in this conversation and in developing solutions with a wide range of partners.

Additional people involved in the presentation, if any

Session Leaders:  
Fred Herling, GWS  
Caitlin Henry, GWS Board Member and Michigan State University  
Evelyn Peat, MS Student, Kansas State University

Participate in the 3MR (Three-Minute Research Competition)

Elizabeth

Himschoot

PhD Candidate

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**Caring for Those Who Care for Parks: Exploring Mental Health Resource availability across the NPS**

*One-sentence summary*

Attendees/audience members will better understand the importance of access to mental health resources and how that varies across NPS roles.

*Abstract*

There are not enough park rangers to meet global conservation goals and most existing rangers are underappreciated and under-equipped. In the United States we have seen increasing rates of crime and suicide in National Parks, among rangers, as they are continually asked to “do more with less”. This study looks at access and awareness of mental health resources across park ranger roles in comparison with stigma. Surveys of current and retired rangers allow for an exploration of trends and will be connected to the implementation of national and park specific program development. Improving the mental health of National Park rangers comes from looking beyond what is provided to examine the level of awareness and perceived accessibility of these resources and how that varies across roles and experience.

*Additional people involved in the presentation, if any*

Present a Poster

Elizabeth

Himschoot

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**Conservation Behind the Scenes: Stress, Interpersonal Relationships, and Job Satisfaction in the NPS**

*One-sentence summary*

Attendees/audience members will better understand how stress and interpersonal relationships influence job satisfaction across different NPS roles.

*Abstract*

National Park Rangers have a variety of different roles and responsibilities. Research into the working conditions and stress experienced by rangers has increased significantly over the last five years. Internationally rangers face precarious working conditions, including “income inadequacy” and “lack of rights and protection.” Calls have been made to help better understand mental health, well-being, and working conditions for rangers. This survey examines how workplace culture, defined by interpersonal relationships with supervisors and co-workers, influences stress levels, access to mental health resources, and job satisfaction across different roles in the National Park Service. The results of this study can be used to evaluate the health and well-being of individuals responsible for preserving natural and cultural resources.

*Additional people involved in the presentation, if any*



Present a Paper

Vivian

Hulugh

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**Assessment of Conservation Planning in South Dakota: Challenges and Opportunities**

*One-sentence summary*

Attendees/audience members will understand the challenges and oportunities in conservation planning.

*Abstract*

Natural resource managers are expected to make sound management decisions and balance competing social-ecological interests. However, they face challenges related to effective collaboration, representation in public participation, and the application of climate information. We used an inductive, qualitative research approach, including 35 expert interviews and content analysis of 53 conservation plans. Our study identified the absence of complementary goals between federal, state, and nonprofit organizations; inadequate public engagement methods often resulting in low engagement; and limited understanding and application of climate data. Conservation outcomes can be more sustainable when collaborative efforts are complementary, public perspectives are incorporated, and clear guidance exists for using climate data.

*Additional people involved in the presentation, if any*

1. Jennifer Zavaleta-Cheek  
Assistant Professor, South Dakota State University
2. Lauren Redmore  
Research Social Scientist, Aldo Leopold Wilderness Research Institute

Present a Paper

William

Janousek

Biologist

U.S. Geological Survey

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**Climate-driven factors and mountain goat declines in Glacier National Park**

*One-sentence summary*

Attendees/audience members will leave with a better understanding of the ecology of mountain goats, population trends, and what the future holds.

*Abstract*

Mountain goats are an iconic species of Glacier National Park’s rich wildlife community and a cherished memory of the millions of visitors to the park each year. However, a shifting climate threatens alpine-adapted species like mountain goats. We used a 12-year citizen science dataset to estimate population trend of mountain goats in Glacier National Park. Median goats per site declined by 45% (95% CRI = 32%, 57%) from 77.8 (95% CRI = 64.4, 95.1) in 2008 to 42.3 (95% CRI = 34.3, 52.2) in 2019, exceeding IUCN criteria for classifying a population as vulnerable (>30% declines over only 2 generations). We will discuss the mechanisms of declines and ongoing research to estimate population size and genetic structure - crucial knowledge for conserving this species at the southern edge of its native range in North America.

*Additional people involved in the presentation, if any*

Co-authors

Tabitha A. Graves - U.S. Geological Survey, Northern Rocky Mountain Science Center, Glacier Field Station, West Glacier, Montana, 59936.

Michael J. Yarnall, Montana Fish, Wildlife, and Parks, Livingston, MT, 59047

Jami Belt - National Park Service, Glacier National Park, West Glacier, Montana 59936.

Present a Poster

Natalia

Jaramillo

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**Harnessing Remote Sensing Technologies to Monitor Tourism Impacts in the Antarctic Peninsula**

*One-sentence summary*

Attendees will understand how remote sensing enhances monitoring of tourism impacts on Antarctic ecosystems and informs environmental management.

*Abstract*

The rapid expansion of tourism in the Antarctic Peninsula raises environmental concerns, yet current monitoring strategies remain insufficient. This research explores the application of remote sensing technologies to evaluate tourism-related changes in the Antarctic landscape. Using drones equipped with hyperspectral and multispectral sensors, it aims to develop a methodology for detecting changes in vegetation health, distribution, and composition in key tourism "hotspots." Remote sensing offers a non-invasive, scalable approach to studying sparse Antarctic vegetation and broader landscape dynamics. By analyzing vegetation indices like NDVI, this study will assess the feasibility of using high-resolution spectral data to track environmental changes linked to seasonal human activity, informing long-term conservation strategies.

*Additional people involved in the presentation, if any*

Paul Gessler, PhD, Professor of Remote Sensing, GeoEcology, and Environmental Science  
College of Natural Resources, University of Idaho.

Chris Zajchowski, PhD, Assistant Professor; Parks, Tourism, and Recreation Ecology  
College of Natural Resources, University of Idaho.

Present a Paper

Jeffrey

Jenkins

Associate Professor

University of California, Merced

Mariposa

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**Assessing the efficacy of reservation systems and effects of climate extremes on recreational access**

*One-sentence summary*

Attendees/audience members will better understand the different effects that reservation systems and climate extremes have on visitation trends.

*Abstract*

Reservations systems can have varying effects on day and overnight patterns as visitors become displaced and adjust their trip planning. Climate change extremes and associated hazards limit and enable access in different ways. Managerial and climatic systems exhibit different influences on visitor access, however few studies have attempted to compare the effects among a population of visitors. In 2023, the combination of no day-use reservation system in place at Yosemite with record wet conditions and road closures preventing access to higher elevations, led to higher use, but spatially constrained mobility, resulting in more crowded conditions and traffic congestion. We compare 2023 with other years to assess the influence of managed access status and climate conditions on park visitation, overnight use types, and vehicle counts.

*Additional people involved in the presentation, if any*

Managed access/reservation systems as additional theme

Participate in the 3MR (Three-Minute Research Competition)

Hayley

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Research Assistant

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**Pathways to Camping Access in the Rural American West: An Application of Access Theory**

*One-sentence summary*

Attendees will understand the pathways to public camping access and key distinctions between traditional leisure constraints theory and access theory.

*Abstract*

On public lands, everyone has equal rights to participate and enjoy the benefits of recreational activities like camping. Access to camping in North America, however, has historically been preferential to those who are White and relatively wealthy. Through a unique approach, this study applied access theory rather than traditional leisure constraints theory to further examine who has access to camping and how campers gain access to camping in rural the American West. Results identified technology, social relations, social identity, capital, knowledge, and rights-based access as six important pathways to accessing camping. In light of social and environmental justice, this study is key for public land managers striving serve the greatest good by facilitating inclusive and equitable access to camping among the American public.

*Additional people involved in the presentation, if any*

Organize an Information-Sharing Session: Invited Papers

Hayley

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Research Assistant

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Taking Stock During a Watershed Moment in Recreation Allocation

One-sentence summary

Attendees will better understand the nuances and impacts of recreation allocation design and planning.

Abstract

This session will include four complementary paper presentations focused on recreation allocation. The first assesses the influence of managed access and climate conditions on overall Yosemite NP visitation, overnight use types, and vehicle counts in 2023. The second assesses the effects of allocation mechanisms and use types on racial and income diversity using 2022 RIDB reservation records and U.S. census data. The third focuses on a 2024 study that examined access to front-country camping in rural western US and compares enabling pathways of camping access across campsite allocation methods. The final focuses on a study to be undertaken in 2025 in two urban-proximate national forests to understand visitor allocation system preferences towards fees, permit distributions, and communication strategies.

Additional people involved in the presentation, if any

Session co-organizers: Hayley A. Johnson, William L. Rice, Abigail Fuesler

1. Assessing the efficacy of reservation systems and effects of climate extremes on recreational access presented by Jeffrey Jenkins, University of California, Merced; Adrienne Marshall, CO School of Mines; Sheri Shiflett & Rachel Mattos, National Park Service; Isaac Sanchez, University of California, Merced; Nicole Athearn, National Park Service
2. Diversity in the rationing outcomes of U.S. recreation resources: A decision tree analysis presented by Yaqi Gong, Pennsylvania State University; Haiyan Wang, Hainan Normal University; Bing Pan, Pennsylvania State University; William L. Rice, University of Montana
3. Investigating recreation rationing and camping access through the lens of access theory: A case study in the rural American West presented by Hayley A. Johnson, William L. Rice, Hilary O. Faxon, & Ethan S. Walker, University of Montana
4. Visitor preferences regarding allocation of day-use wilderness permits in two national forests presented by Abigail Fuesler, William L. Rice, & Kelsey E. Phillips, University of Montana; Christopher A. Armatas, Aldo Leopold Wilderness Research Institute

Organize an Information-Sharing Session: Sharing Circle

Shawn

Johnson

Director

UM Center for Natural Resources and Environmental Policy

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Connecting People and Place

One-sentence summary

Attendees will share insights, build connections, and explore strategies for inclusive, meaningful community engagement.

Abstract

Public engagement is vital for conservation, climate resilience, and the success of parks and protected areas. Yet, implementing meaningful initiatives can feel daunting. How do you build trust, foster long-term relationships, and overcome participation barriers? How do you welcome conflict and ensure community input shapes complex decisions? This sharing circle is for those actively engaging the public or seeking to connect with others who are. Through participatory discussion, we'll explore experiences, challenges, and best practices for impactful, inclusive engagement. Attendees are encouraged to bring their own experiences, questions, and ideas.

Additional people involved in the presentation, if any

- \* Travis Anklam - co-organizer - UM Center for Natural Resources and Environmental Policy
- \* Richard Forbes - co-organizer - UM Center for Natural Resources and Environmental Policy
- \* Alexis Gibson - co-organizer - UM Center for Natural Resources and Environmental Policy
- \* Nick Maya - co-organizer - UM Center for Natural Resources and Environmental Policy
- \* Heather Stokes - co-organizer - UM Center for Natural Resources and Environmental Policy

Organize a Core Workshop Session: Presentations + Audience Interaction

Shawn

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Engagement Best Practices for Place-Based Conservation, Adaptation, and Inclusion

One-sentence summary

Attendees will gain tools to enhance inclusive engagement, overcome barriers to participation, and co-develop effective conservation solutions.

Abstract

Effective engagement is key to conservation success, especially in addressing climate change, stewarding heritage, fostering economic development, and integrating diverse perspectives into management decisions. This interactive workshop will equip participants with best practices for weaving cultural, economic, and ecological viewpoints into engagement strategies that enhance resilience, equity, and connection to place. Case studies at local, regional, and national scales will showcase approaches for fostering inclusive, informed dialogue. Participants will then explore strategies for engaging diverse stakeholders in co-developing conservation solutions and leave with practical tools to overcome barriers and build more inclusive initiatives.

Additional people involved in the presentation, if any

- \* Travis Anklam, Collaborative Learning Program Director, UM Center for Natural Resources and Environmental Policy - co-organizer/co-presenter
- \* Heather Stokes, Director of Practice, UM Center for Natural Resources and Environmental Policy, co-organizer/co-presenter
- \* Jennifer Thomsen, Program Director, UM Parks, Tourism, and Recreation Management - co-presenter
- \* Alexis Gibson, Sr. Project Manager, UM Center for Natural Resources and Environmental Policy - co-organizer



Present a Paper

Glenys

Jones

Specialist (Evaluation), Tasmania Parks & Wildlife Service (Australia)

n/a

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**Demonstrated success stories in protected area and conservation management from Tasmania (Australia)**

*One-sentence summary*

Attendees/audience members will see demonstrated case studies of effective protected area and conservation management from Tasmania Australia.

*Abstract*

This paper showcases selected case studies of effective protected area and conservation management from Tasmania (Australia). The case studies are [to be] featured in an open-access online training resource [currently being produced and expected to be completed by May 2025] that will serve as model and inspiration to protected area managers, practitioners, stewards, educators, students and everyone with an interest and/or responsibility in effective protected areas management.

*Additional people involved in the presentation, if any*

Title: "Case studies in effective parks management from Tasmania Australia"  
This proposal is for a paper/presentation describing a collaborative project undertaken under the banner of the Protected Areas Collaboration. Partners in the project are the Tasmanian Land Conservancy, University of Tasmania, Parks and Wildlife Service Tasmania, and Conservation Management.  
I represent PWS on the project team; however I would be attending and presenting at the Parks Forum in my personal capacity.

Present a Paper

Kate

Jones

Research Scholar

North Carolina State University

Cary

Nort

United States

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**Geospatial tools for collaborative climate adaptation planning at NPS mid-Atlantic battlefield parks**

*One-sentence summary*

Attendees will better understand how the National Park Service is assessing cultural landscape vulnerabilities to climate change.

*Abstract*

We are developing a cultural landscape climate change vulnerability assessment (CCVA) with a team composed of NPS Climate Response Program staff, resource managers from NPS park units, the Olmsted Center for Landscape Preservation, and a multidisciplinary team from North Carolina State University. Together we are 1) compiling geospatial databases that address data gaps and inform cultural landscape conditions, and 2) developing a geospatial interface that allows the CCVA to be assessed under multiple climate change scenarios and guide place-based adaptation strategies. The geospatial tools and the CCVA framework are designed to be scalable to parks across the region. Our paper presentation connects with the "Responding to Climate Change" and "Integrating Natural and Cultural Heritage Conservation" themes.

*Additional people involved in the presentation, if any*

Kate Jones, Jelena Vukomanovic, Rachel Layko, Kofi Boone, John Millhauser, Erin Seekamp, Garrett Silliman, Kate Dean-McKinney

Present a Paper

Seth

Kannarr

PhD Candidate

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**What's In a Name? Reimagining the Geography of Naming Designations in the U.S. N.P.S. System**

*One-sentence summary*

Attendees will learn about the critical importance of place naming and naming designations to parks/protected areas as part of my dissertation work.

*Abstract*

The U.S. National Park Service (NPS) manages 433 units across 19 naming designations, including the well-known and highly visited ‘National Parks’. The criteria for these naming designations are vague at best, and many NPS units have naming designations that do not align with their characteristics. This disconnect provides many visitors with unfulfilled expectations that diminish their experiences. As part of my dissertation work, I intend to address this issue by collaborating with key stakeholders to create a new set of descriptive, objective-oriented criteria to better classify these NPS sites. This work will carry out a systematic reclassification of all 433 NPS units with the new criteria, explore the geographic context of each potentially redesignated site, and provide a critical opportunity for policy intervention.

*Additional people involved in the presentation, if any*

Participate in the 3MR (Three-Minute Research Competition)

Seth

Kannarr

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University of Tennessee

Knoxville

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United States

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**What's In a Name? Reimagining the Geography of Naming Designations in the U.S. N.P.S. System**

*One-sentence summary*

Attendees/audience members will learn about my dissertation research into the geography of place naming and naming designations within the NPS system.

*Abstract*

The U.S. National Park Service (NPS) manages 433 units across 19 various naming designations. The criteria provided by the NPS for these naming designations are vague at best, and many NPS units across the system have naming designations that do not align with their characteristics. In my dissertation research, I have begun to unpack the complex history that has led to the current state of NPS system and the importance of naming designations to place naming scholarship. To critically address this systemic issue, I am collaborating with experts/stakeholders to create a new set of descriptive, objective-oriented criteria that integrates geographic parameters, uses legacy NPS terminology, and is aligned with international standards to better classify these NPS sites.

*Additional people involved in the presentation, if any*

Participate in the 3MR (Three-Minute Research Competition)

Emma

Keinath-Lopez

Research Assistant

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Missoula

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Motivations behind social trail usage at Delta Lake in Grand Teton National Park

One-sentence summary

Attendees/audience members will understand social trail usage in relation to sustainable tourism in National Parks.

Abstract

With increased visitation to National Parks combined with digital exposure, social trail usage has increased, leading to the “destination social trail.” Social trails have been found to have environmental and safety concerns, while also highlighting a unique way in which visitors interact with parks. This study aims to understand the “why” behind social trail usage to help park management understand visitor needs, ensure safety, preserve and protect park resources, and adapt their management strategies. Through a qualitative approach of digital media discourse analysis, interviews with social trail users and informed park staff, and supplemental participant observation - data will be collected and analyzed to help park management gain insight into understanding their visitors, which offers significant advances for sustainable tourism.

Additional people involved in the presentation, if any

N/A

Present a Paper

Sam

Kellogg

Postdoctoral Fellow

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**Fear of a Digital Planet: Wireless Politics in U.S. National Parks**

*One-sentence summary*

Attendees/audience members will understand with greater nuance recent conflicts around cellular connectivity and digital media in U.S. National Parks.

*Abstract*

Recent years have seen a rash of controversies surrounding digital network expansion in protected public lands, particularly in U.S. National Parks. Digital connectivity is experienced by some as intrusive and polluting —a digital blight eroding wilderness character or disquieting nature’s solitude— while others argue in favor of expanding coverage as an element of safety, a driver of rural economic growth, a solution to labor shortages and budget cuts, or as a method to improve accessibility. This presentation maps the contours of these debates, identifies some of the political, economic, and ideological stakes which underpin them, and assesses the ways that battles over digital infrastructures both reflect and complicate long-standing land management strategies and forms of environmental relation.

*Additional people involved in the presentation, if any*

Present a Paper

Lydia

Kiewra

PhD Candidate & Graduate Research Assistant

Michigan State University

East Lansing

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United States

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**Scaling up and scaling out: engaging wildlife managers in system-wide visitor use thinking**

*One-sentence summary*

Attendees will feel empowered to apply collaborative approaches for selecting sites for visitor use management studies.

*Abstract*

Across the U.S., public land managers must balance natural resource protection with visitor experiences. This challenge necessitates the use of recreation frameworks and collaboration to uphold agency goals. However, frameworks require prior site knowledge and are often applied to individual or similar sites. Increasingly, managers must assess entire public land systems, a complex task given agency constraints. Social scientists can help by analyzing visitor patterns across systems. Our research enhances site selection for visitor studies, highlighting a Michigan case where wildlife managers and social scientists used the Delphi method and Integrated Recreation Amenities Framework to select 10 sites representing a 200+ site wildlife area system.

*Additional people involved in the presentation, if any*

Other authors: Elizabeth E. Perry (Department of Community Sustainability, Michigan State University, East Lansing, USA), Emily F. Pomeranz (Department of Fisheries and Wildlife, Michigan State University, East Lansing, USA), and Melissa J. Nichols (Michigan Department of Natural Resources, Fisheries Division, Lansing, USA)

Present a Poster

Min Kook

Kim

Assistant Professor

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Galloway

NJ

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**Lessons from the Summits: Evaluating Vegetation Management Effectiveness Using Remote Sensing**

*One-sentence summary*

Attendees will gain insights into the effectiveness of management strategies for promoting vegetation recovery using remote sensing technology.

*Abstract*

Effective management strategies to mitigate visitor impacts on vegetation are crucial for long-term conservation in recreational areas. This study evaluates management approaches at Cadillac, Penobscot, and Sargent Mountain Summits in Acadia National Park, utilizing remote sensing data from 2010-2018 and 2001-2021 to assess changes in vegetation cover. Findings show that intensive management, such as physical barriers and ecological restoration at Cadillac, improved vegetation cover, whereas less intensive strategies at Penobscot and Sargent led to declines in vegetation. The study highlights the importance of effective management in promoting vegetation health and demonstrates how remote sensing can inform sustainable decision-making in recreation ecology.

*Additional people involved in the presentation, if any*

John Daigle, co-author



Present a Paper

Min Kook

Kim

Assistant Professor

Stockton University

Galloway

NJ

United States

mkkim2@gmail.com

**Lessons from the Summits: Evaluating Vegetation Management Effectiveness Using Remote Sensing**

*One-sentence summary*

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*Abstract*

Effective management strategies to mitigate visitor impacts on vegetation are crucial for long-term conservation in recreational areas. This study evaluates management approaches at Cadillac, Penobscot, and Sargent Mountain Summits in Acadia National Park, utilizing remote sensing data from 2010-2018 and 2001-2021 to assess changes in vegetation cover. Findings show that intensive management, such as physical barriers and ecological restoration at Cadillac, improved vegetation cover, whereas less intensive strategies at Penobscot and Sargent led to declines in vegetation. The study highlights the importance of effective management in promoting vegetation health and demonstrates how remote sensing can inform sustainable decision-making in recreation ecology.

*Additional people involved in the presentation, if any*

John Daigle, co-author

Present a Poster

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**Optimizing Vegetation Indices for Enhanced Management of Parks and Protected Areas**

*One-sentence summary*

Attendees will learn how different vegetation indices can improve vegetation monitoring and management strategies in parks and protected areas.

*Abstract*

This study compares top-of-atmosphere radiance (TOAR) and atmospherically corrected surface reflectance (SR) data for detecting vegetation cover changes in Acadia National Park. SR data typically requires more preprocessing and atmospheric correction, which can lead to over-correction and loss of key information. Using PlanetScope data, we applied pre-classification change detection with NDVI and ARVI indices to assess vegetation dynamics. Results show that modified ARVI indices from SR data, with controlled red or blue bands, achieved the highest accuracy (87.58% and 89.44%) compared to other combinations. These findings suggest SR data could offer better insights for monitoring vegetation changes, enhancing management strategies and improving monitoring techniques with new indices.

*Additional people involved in the presentation, if any*

John Daigle, co-author, University of Maine

Present a Poster

Isabelle

Kostelnick

Master's Student

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**Having Reservations? The Impact of Recreation.Gov on Visitor Experiences at Acadia National Park**

*One-sentence summary*

Attendees/audience members will understand key factors influencing visitor perceptions of Recreation.gov at Acadia National Park.

*Abstract*

Recreation.gov is an essential tool for National Park Service visitor use management, but visitor impressions to the platform are mixed. This study examined perceptions of Recreation.gov at Acadia National Park, focusing on how attitudes toward the platform relate to place attachment, trip intentions, and broader use limit preferences. Surveys were distributed via QR codes at reservation-required sites (Blackwoods Campground and Cadillac Mountain). Findings suggest visitors were generally neutral to somewhat favorable of the platform, with trends indicating that increased implementation was desired in certain areas of the park. Generally, stronger place attachment was linked to greater platform support. Results provide key insights aiding in efforts to improve Recreation.gov for both park managers and visitor stakeholders.

*Additional people involved in the presentation, if any*

Dr. Jessica Leahy, Professor in School of Forest Resources, University of Maine

Present a Poster

Sarah

Krzemien

Master’s Student

Michigan State University

Waterford

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**Recreating Together: Displacement Types and How they Vary in Multigenerational Households**

*One-sentence summary*

Attendees/audience members will better understand that multigenerational households are a meaningful and independent factor and could be studied more

*Abstract*

Displacement is a coping mechanism or adjustment people can make when they encounter barriers to engagement, where they choose alternative experience conditions to still attain the outcomes they seek from their recreation pursuit. Displacement can occur spatially (site) and temporally (time), but it may also differ across demographics. Little is known about displacement across social identities based in race/ethnicity, household composition, and recency of family structure in the U.S. This research examines causes and types of displacement and how these may vary based on social identity. We surveyed Southern California residents who visited four national forests, on their visitor use patterns and displacement. Results imply that multigenerational households are more likely to have experienced and be impacted by displacement drivers.

*Additional people involved in the presentation, if any*

Erin Budzyn, Michigan State University  
Elizabeth Perry, Michigan State University  
Alyssa Thomas, U.S. Forest Service  
José J. Sánchez, U.S. Forest Service  
Brian A. Peterson, Kansas State University

Organize an Information-Sharing Session: Presentations + Audience Interaction

Seamus

Land

Adjunct Professor

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Homelessness and nature across landscapes and disciplines

One-sentence summary

Attendees will better understand the interconnected social-ecological dynamics of unsheltered homelessness in parks and protected area management.

Abstract

The social-ecological dynamics of homelessness in parks and protected areas have become increasingly apparent to land managers, conservationists, social workers, scholars, and members of many communities across the US. To help connect a fragmented dialogue across the academic literature, we present findings from a literature review we conducted across a broad range of disciplines. We observed an increasing focus on understanding homelessness drivers, impacts, and solutions through a coupled social-ecological systems lens. To help mobilize around needs and opportunities, we propose the development of a research agenda to identify priorities for better attending to the complex and contested challenges of homelessness across landscapes, and we invite audience insights on how to ensure social and environmental justice in this endeavor.

Additional people involved in the presentation, if any

Monika Derrien, PhD - Pacific Northwest Research Station, USDA

Organize a Core Workshop Session: Presentations + Audience Interaction

Benita

Law-Diao

Commissioner

Adirondack Park Agency

Latham

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cheinee@aol.com

Accessibility for All on Forest Preserve Lands?

One-sentence summary

Attendees/audience members will learn about the issues associated with granting people with disabilities access to Adirondack Park's forever preserve.

Abstract

The NYS Adirondack Park Agency (APA) develops long-range land use plans for both public and private lands, within the boundary of the Adirondack Park. We are currently working on updating the NY State Land Master Plan (SLMP). The APA and NYS Department of Environmental Conservation (DEC) have a policy limiting the number of roads in the park's wild forest lands. The policy states that there should be no "material increase" in the number of miles of roads in the wild forest land. People with disabilities are pushing for accessibility to our forest preserve lands, while environmental groups are voicing concerns about wilderness preservation. Stakeholders concerned about "unprecedented changes" proposed to policies governing forest preserve lands will cause great harm.

Additional people involved in the presentation, if any

Not applicable

Present a Paper

Benita

Law-Diao

Board Member, Board Member and Trustee

John Brown Lives!, Adirondack Park Agency and the Adirondack Experience Museum

Latham

Ne

United States

cheinee@aol.com

**Adirondacks: We Were Here, We Are Here, We Have Every Right to Be Here**

*One-sentence summary*

Attendees/audience members will understand that the Adirondacks is a major carbon sink that everyone has a right to access and protect.

*Abstract*

Black and Latino people often associate the Adirondack (ADK) State Park region with prisons, white people, wild animals, cold snowy weather, and harassment and injustice. They have been made to feel that they have no right to be in the Adirondacks, and they believe that no BIPOC exists there, other than in prisons. Black people have lived in the ADK since the 1800s, live and work there now, and have every right to live and recreate there. In order to protect and preserve the ADKs, everyone needs to understand the value the park and have access to this important 6.1+ million acre carbon sink, which is larger than 5 national parks (Yellowstone, Yosemite, Grand Canyon, Everglades, and Great Smoky National Parks combined).

*Additional people involved in the presentation, if any*

Not applicable

Present a Paper

Rachel

Layko

PhD Student

North Carolina State University

Raleigh

Nort

United States

rblayko@ncsu.edu

**Drivers of Residential Development around U.S. Protected Areas**

*One-sentence summary*

Attendees will better understand 1) the drivers of residential development around public lands in the U.S. and 2) how these drivers vary spatially.

*Abstract*

Increasing low-density residential development around parks and protected areas poses threats to ecosystem function within park boundaries. While rates and impacts of development around parks have been studied, the drivers of development and their spatial variation are not well understood. Therefore, this study 1) identifies drivers of near-park development in the U.S. (2000-2020) and 2) determines how drivers differ at regional and national scales. We examine the relationship between development (quantified as change in housing density and impervious surface) and a suite of economic, social, and biophysical drivers within census block groups. Our paper contributes to the theme, “Integrating Natural and Cultural Heritage Conservation” by taking a social-ecological systems approach to investigating land use change around parks.

*Additional people involved in the presentation, if any*

Co-authors: Rachel Layko (PhD Student, North Carolina State University), Jelena Vukomanovic (Associate Professor, North Carolina State University Center for Geospatial Analytics), John Vogler (Research Scholar, North Carolina State University Center for Geospatial Analytics), Alexander Yoshizumi (PhD Candidate, North Carolina State University), Ross Meentemeyer (Director, North Carolina State University Center for Geospatial Analytics)



Present a Paper

Nari

Lee

Master's Student

University of Montana

Missoula

Mo

United States

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**Gendered Barriers to Working in Conservation: A Comparative Case Study in South Korea and Mongolia**

*One-sentence summary*

Attendees will gain insight into gender inequity in conservation and strategies for fostering inclusive leadership and policies in Mongolia and Korea.

*Abstract*

This research examines how gender inequity in conservation leadership in Mongolia and South Korea limits effectiveness and inclusivity. Patriarchal norms create systemic barriers, sidelining women from decision-making roles. Using mixed ethnographic methods, including interviews and photovoice, this study explores both personal experiences and structural challenges. Findings will inform policy and organizational strategies to promote gender equity, aligning with the Social and Environmental Justice theme. By addressing these barriers, the research contributes to more inclusive conservation efforts, ensuring diverse leadership for sustainable environmental solutions.

*Additional people involved in the presentation, if any*

Present a Poster

Kyle

Lima

Data Analyst

Schoodic Institute at Acadia National Park

Stillwater

ME

klima@schoodicinstitute.org

**A citizen science approach to early detection and monitoring**

*One-sentence summary*

Attendees/audience members will come away with a better understanding of how citizen science data can be leveraged for management and early detection.

*Abstract*

This poster aims to convey 2 years of work in developing a citizen science approach to augment monitoring in National Parks. We've developed a program that pulls recent observations submitted to two of the most popular citizen science platforms: iNaturalist and eBird. Working with park managers and natural resource staff, we compile lists of species of management interest (i.e., rare species in decline or thought to be locally extirpated, invasive plants, forest insect pests, species on the state and federal threatened and endangered lists). Each week, park staff and partners receive an email communicating the observations of species of interest. Staff can then take appropriate action if necessary (e.g., a new observation of an invasive plant that needs immediate control), or continue collecting data on species they're monitoring.

*Additional people involved in the presentation, if any*

Chris Nadeau, Schoodic Institute  
Abraham Miller-Rushing, National Park Service  
Jesse Wheeler, National Park Service  
Nicholas Fisichelli, Schoodic Institute

Present a Paper

Jeremy

Linden

Consultant

Linden Preservation Services, Inc.

Brockport

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United States

jeremy@lindenpreservation.com

**Environmental Assessments and Strategic Sustainability Planning for Historic Sites**

*One-sentence summary*

This environmental assessment case study will present non-mechanical strategies for preservation management in response to climate change.

*Abstract*

In 2024, Linden Preservation Services completed work with the Richmond National Battlefield Park on a holistic Environmental Assessment, focused on analyzing existing building infrastructure and performance at Shelton House at Rural Plains. A key concern was whether the house, only capable of winter heating, required further mechanical intervention to create an appropriate preservation environment. This paper presents the study results, which recommended against increased mechanization and provided strategic guidance for responding to climate change through non-mechanical strategies for environmental management, including groundwater control, light control and interior heat gain reduction, and changes in programmatic usage based on outdoor conditions, allowing for continued interpretation and preservation without added energy consumption.

*Additional people involved in the presentation, if any*

Present a Paper

Brianna

Lipp

Master's Student

University of Montana

Missoula

MT

United States

brianna1.lipp@umontana.edu

**A systematic scoping literature review of social identity in wildlife research**

*One-sentence summary*

Attendees/audience members will gain insights into the past and future utility of social identity theory to understand human-wildlife relationships.

*Abstract*

Social identity theory explores how individuals form identities based on group membership, influencing their cognitions, emotions, and behavior. Existing scholarship in human dimensions of wildlife has predominately focused on attitude differences among static identity groups. However, social identity effects are multifaceted and dynamic, distorting perceptions, influencing preferences, and fostering in-group favoritism, out-group derogation, and intergroup conflict or cooperation. Here, we present a systematic scoping review across ~260 refereed articles to examine how social identity has been used to understand human relationships with wildlife. We also draw inspiration from social psychological research in other fields to suggest new approaches to integrate social identity perspectives into wildlife related research.

*Additional people involved in the presentation, if any*

Dr. Alexander L. Metcalf (Human Dimensions Lab, College of Forestry and Conservation, University of Montana)

Present a Poster 1

Rebecca

Lowry

Director

Joshua Tree Creative Lab

Joshua Tree

CA

United States

r.lowry@jtlab.info

JTLab and Parks Modern

One-sentence summary

Attendees will learn about the creative resources that are available to public lands+culture stewards as they pursue their organization's mission.

Abstract

We propose presenting a set of four posters that introduce the work of Joshua Tree Creative Laboratory (JTLab) and its Parks Modern (PMod) archive. We anticipate offering takeaway flyers for attendees, to be presented with the poster set. The posters will be visually engaging, saying as much as possible with images, using words to supplement and clarify. JTLab is a 501c3 nonprofit whose purpose is to be a creative resource for national parks and affiliate organizations nationwide. The Lab provides creative services; bridges the gap between the public lands+culture and creative communities; and, through Parks Modern, protects NPS's own significant design legacy with context. The Posters will describe the work of the Lab and the Archive, and will present specific projects and collections items as examples of their work.

Additional people involved in the presentation, if any

Present a Poster 2

Rebecca

Lowry

Director

Joshua Tree Creative Lab

Joshua Tree

CA

United States

r.lowry@jtlab.info

JTLab and Parks Modern

One-sentence summary

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Additional people involved in the presentation, if any

Present a Poster 3

Rebecca

Lowry

Director

Joshua Tree Creative Lab

Joshua Tree

CA

United States

r.lowry@jtlab.info

JTLab and Parks Modern

One-sentence summary

Attendees will learn about the creative resources that are available to public lands+culture stewards as they pursue their organization's mission.

Abstract

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Additional people involved in the presentation, if any

Present a Poster 4

Rebecca

Lowry

Director

Joshua Tree Creative Lab

Joshua Tree

CA

United States

r.lowry@jtlab.info

**JTLab and Parks Modern**

*One-sentence summary*

Attendees will learn about the creative resources that are available to public lands+culture stewards as they pursue their organization's mission.

*Abstract*

We propose presenting a set of four posters that introduce the work of Joshua Tree Creative Laboratory (JTLab) and its Parks Modern (PMod) archive. We anticipate offering takeaway flyers for attendees, to be presented with the poster set. The posters will be visually engaging, saying as much as possible with images, using words to supplement and clarify. JTLab is a 501c3 nonprofit whose purpose is to be a creative resource for national parks and affiliate organizations nationwide. The Lab provides creative services; bridges the gap between the public lands+culture and creative communities; and, through Parks Modern, protects NPS's own significant design legacy with context. The Posters will describe the work of the Lab and the Archive, and will present specific projects and collections items as examples of their work.

*Additional people involved in the presentation, if any*



Present a Poster

Kole

Lundstrom

Master's Student

University of Alberta

Edmonton

AB

Canada

klundstr@ualberta.ca

**The Role of Educational Programming in Indigenous Peoples' Experiences in Protected Areas**

*One-sentence summary*

Attendees/audience members will understand how Indigenous peoples feel about Indigenous interpretation programming.

*Abstract*

Protected area management agencies are faced with the challenge of addressing Indigenous peoples' histories and relationships with land that is now under park management. Interpretation programs are one of the ways park agencies are attempting to include Indigenous perspectives and histories in park spaces. However, little to no research has attempted to understand how Indigenous individuals' experiences in protected areas are influenced by interpretation programs. This research will include interviews with Indigenous park visitors to ask how their experiences in parks are influenced by interpretation programming. Indigenous methods and methodologies will be used to uphold social and environmental justice by enhancing Indigenous peoples' experiences and visibility, and contribute to overall reconciliation in outdoor spaces.

*Additional people involved in the presentation, if any*

Present a Poster

Sean

MacDougall

Bureau of Land Management

United States

**The National Landscape Conservation System: An Overview**

*One-sentence summary*

Attendees will better understand the purpose, scope and scale of BLM’s National Conservation Lands during its 25th anniversary year.

*Abstract*

The National Landscape Conservation System, also referred to as National Conservation Lands or NLCS, was established by administrative order under the Bureau of Land Management in 2000 and codified by Congress in 2009. The NLCS conserves, protects, and restores nationally significant landscapes that have outstanding cultural, ecological, and scientific values for the benefit of current and future generations. It includes national monuments, national conservation areas, wilderness areas, wilderness study areas, national scenic trails or national historic trails, wild and scenic rivers, and any area designated by Congress to be administered for conservation purposes in the BLM. As the system celebrates 25 years since its creation, this poster provides an overview of the system, the values it stewards, and the types of uses allowed.

*Additional people involved in the presentation, if any*

- Suzanne Copping & Fritz Klasner
- James Sippel
- Barb Keleher
- Robin Lewis
- Karla Rogers

Organize an Information-Sharing Session: Sharing Circle

Sarah

Marks

Doctoral Student

Rutgers University - Newark, School of Criminal Justice

Chatsworth

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Crime and Public Safety on Public Lands

One-sentence summary

Attendees will expand their understanding of crime on public lands, the impact of these crimes, & interventions to reduce crime on public lands.

Abstract

Crime and safety on public lands is a long-standing yet evolving concern among stakeholders. Crimes occurring on public lands are unique as they impact the environment, wildlife, cultural heritage, property, and people. This information-sharing session will probe 1) what types of crimes are occurring on public lands; 2) the impacts of crime on public lands, including social and environmental justice, economic value, and perceptions of safety; and 3) successful strategies and ideas for reducing crime and increasing public safety. The session is particularly salient in the context of federal land management agencies experiencing mass firings and hiring freezes amid record levels of visitors in recent years. Moreover, federal shifts in policy and funding will undoubtedly have ripple effects among state and local land management agencies.

Additional people involved in the presentation, if any

Present a Paper

Shelby

Marocco

Graduate Research Assistant, Master's Student

Michigan State University

East Lansing

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United States

maroccos@msu.edu

**A Tale of Two Rivers: A decadal comparison of visitor use at Sleeping Bear Dunes National Lakeshore**

*One-sentence summary*

Attendees/audience members will understand how visitor use has shifted at the Crystal and Platte rivers from 2014 to 2024 at SLBE.

*Abstract*

Sleeping Bear Dunes National Lakeshore in Michigan attracts over 1.5 million visitors annually, generating more than \$200 million in tourism revenue (Moore, 2024). A 2014 study with the National Park Service examined visitor patterns and attitudes at the Platte and Crystal Rivers, surveying 1,044 people from May to September 2013. In 2024, a follow-up study was conducted at five locations, including the Platte and Crystal Rivers, over 12 weeks (May to August), with 1,360 surveys collected, over 40% of which were from the Crystal and Platte Rivers. A decadal comparison of visitor use, motivations, and intended use of these rivers, along with a statistical analysis and annual revenue data, was also conducted. Understanding these patterns helps managers support conservation, sustainability, and visitor satisfaction at SLBE.

*Additional people involved in the presentation, if any*

Dr. Robert Dvorak (Central Michigan University)  
Dr. Elizabeth Perry (Michigan State University)

Present a Paper

Joseph

Mbaiwa

University of Botswana, Okavango Research  
Institute

Maun North West

Botswana

JMbaiwa@ub.ac.bw

**Trophy Hunting and Ecological Colonialism in Botswana**

*One-sentence summary*

*Abstract*

The concept of ecological colonialism is used to analyse trophy hunting and wildlife conservation and associated tensions between the Global North and Global South in Botswana. The analysis is drawn from experiences of rural communities. Rural communities in Botswana prefer both trophy hunting and photographic tourism while citizens in the Global North especially Animal rights group reject trophy hunting citing decreased wildlife populations, increased poaching, illegal wildlife trade and the loose of biodiversity. Agro-pastoralists describe the Global North approach as a form ecological colonialism. This paper argues that photographic tourism and trophy hunting are sustainable land use options that are complementary hence should be undertaken to achieve wildlife conservation and improved rural livelihoods in Botswana.

*Additional people involved in the presentation, if any*

Organize an Information-Sharing Session: Panel Discussion

Rebecca

McCaffery

Research Biologist

US Geological Survey

Port Angeles

WA

United States

rmccaffery@usgs.gov

Examining drivers and impacts of subalpine meadow change on wildlife species in three national parks

One-sentence summary

Attendees will learn about research on mountain meadow change and impacts to sensitive wildlife in an engaging and interactive format.

Abstract

Our understanding of how mountain meadows are changing, how temperature and precipitation relate to those changes, and how this will impact sensitive wildlife species in park landscapes is limited. We examined these questions at Olympic, Mount Rainier, and Glacier National Parks. We used remote-sensing and statistical models to quantify loss and change in subalpine meadows and how water and climate relate to those changes. We are linking results of these models to distribution and dynamics of vulnerable wildlife species such as the Olympic marmot and several bumblebee species. We will present and discuss the results, uses, and implications of our interdisciplinary research, and how to apply this approach in other systems. This work can help parks prioritize conservation and management actions in the face of climate change.

Additional people involved in the presentation, if any

Panelists in a Panel Discussion information-sharing session:

Dr. Tabitha Graves (research ecologist, USGS)  
Dr. T. Roy Sando (research physical scientist, USGS)

Organize a Core Workshop Session: Presentations + Audience Interaction

Perri

Meldon

National Coordinator

NPS Mellon Humanities Postdoctoral Fellowship Program

Waynesboro

Virgi

United States

pmeldon@usaconservation.org

Humanities as a Bridge: Lessons from the NPS Mellon Program

One-sentence summary

Attendees will leave this session with creative, cost-effective methods for telling fuller, place-based stories rooted in public lands history.

Abstract

The National Park Service Mellon Humanities Postdoctoral Fellowship Program places recent PhDs with NPS sites and programs across the agency. Over the course of two-year fellowships, Mellon Fellows work with NPS mentors, scholars, and community partners to conduct original research and develop new interpretive and educational products and programming. In this session, NPS Mellon participants share their experiences bridging enduring yet illusionary divisions between natural and cultural heritage. The presenters will underscore the importance of Tribal and community engagement as they explore interpretive approaches to showcase their research. After brief presentations, Mellon participants will lead attendees in an activity to enrich place-based interpretation that addresses social, cultural, and ecological complexity.

Additional people involved in the presentation, if any

Dr. Helen LaCroix, Communications Consultant, NPS Mellon Program;  
Dr. Stephen Hausmann, Mellon Fellow, Mount Rushmore National Memorial;  
Rylan Sprague, Integrated Resources Program Manager, Mount Rushmore National Memorial;  
Dr. Rosie Sprague, Professor, Black Hills State University;  
Dr. Meagan Harden, Mellon Fellow, Maritime Washington National Heritage Area  
Perri Meldon, National Coordinator, NPS Mellon Program;  
Dr. Frank Schmitz, Mellon Fellow, NPS Midwest Regions Rivers Program;  
Ione Quigley, Tribal Historic Preservation Officer, Rosebud Sioux Tribe

Present a Paper

Alexander

Metcalf

Associate Professor

University of Montana Human Dimensions Lab

Missoula

MT

United States

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**Social identity activation contributes to unnecessary polarization of attitudes toward wolves**

*One-sentence summary*

Attendees/audience members will better appreciate how social identity activation can unnecessarily deepen polarization on conservation issues.

*Abstract*

Polarization between groups can undermine durable conservation outcomes. Social identity activation can exacerbate conflict, especially when people hold inaccurate assumptions of others. The dynamic influence of social identity has been underexplored in conservation contexts. Across two randomly controlled experiments (total  $n = 2,296$ ), we show how social identity activation and inaccurate metaperceptions distort attitudes toward gray wolves (*Canis lupus*) and unnecessarily deepen polarization. We provide evidence of a unique in-group metaperception mechanism for this effect and, promisingly, find a simple in-group metaperception correction can attenuate it. We discuss the pernicious consequences of activating identities people incorrectly assume are polarized and recommend practical guidance for avoiding these tragically ironic outcomes.

*Additional people involved in the presentation, if any*

Justin W. Angle



Present a Paper

Nate

Moody

Instructor

Natural Resources and Society Department,  
University of Idaho

Moscow

Idah

United States

nmoodu@uidaho.edu

**Outfitter perceptions of workforce development on the Middle Fork of the Salmon River**

*One-sentence summary*

Attendees/audience members will better understand workforce development needs for wilderness river outfitting.

*Abstract*

Commercial outfitting relies on inter-relations between owners/outfitters, clientele, and guides. Currently, limited research exists exploring challenges present in preparing a professional guiding workforce. This qualitative study explores outfitters' perceived challenges and proposed necessities in development of a quality guiding workforce for the Middle Fork of the Salmon River in Idaho. Findings suggest that alongside structured technical skill development, cultural and historical interpretation skills are requisite professional skills contributing to the economic valuation of outfitted services. These findings support potential skill development protocols for guide training within the Salmon River Basin, as well as transferable multi-day river contexts where guided recreational activities occur.

*Additional people involved in the presentation, if any*

Chris Zajchowski, Assistant Professor, Natural Resources and Society Department, University of Idaho

Present a Poster

Wayde

Morse

Professor

Auburn University

Auburn

AL

morsewc@auburn.edu

**Identifying recreation participation patterns and trends using the ORAPS**

*One-sentence summary*

Attendees/audience members will better understand how the ORAPS can fulfill state and national recreation participation data needs.

*Abstract*

To effectively plan for visitation to parks and protected areas, we need a system to identify participation patterns and trends and develop forecasts. The Outdoor Recreation Access and Participation Survey (ORAPS) project presents a rigorous standardized national system for collecting and disseminating information on outdoor recreation. It fulfills Statewide Comprehensive Outdoor Recreation Plan requirements with data on recreation access and near and away-from-home participation levels for eighty activities. It's a general public survey that identifies participation constraints and facilitators (programmatic and structural) that moderate participation levels. This data provides a template to forecast demand, broaden participation, address constraints, enhance facilitators, and enable group comparisons critical for long-term planning.

*Additional people involved in the presentation, if any*

Lee Cerveny, PNW, USDA Forest Service lee.cerveny@usda.gov  
Randy Rosenberger, Professor, Oregon State University r.rosenberger@oregonstate.edu  
Lydia Gorrell, Faculty Research Assistant, Oregon State University, lydia.gorrell@oregonstate.edu

Participate in the 3MR (Three-Minute Research Competition)

Adyasha

Nayak

PhD Candidate

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Missoula

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adyasha.nayak@umontana.edu

**Impacts of Aquaculture Policy and Adaptive Capacity in Social-Ecological System of Chilika Lagoon**

*One-sentence summary*

Attendees/audience members will better understand governance in small-scale fisheries.

*Abstract*

The growing demand for seafood in the global North has driven the shift from capture fisheries to aquaculture. While this has benefited livelihoods, it has negatively impacted small-scale fisheries, as seen in Chilika Lagoon, India. Since the 1980s, aquaculture encroachment and commercial fishing have eroded traditional fishing areas and livelihoods. The 2023 Aquaculture Authority Act amendment decriminalizes aquaculture, potentially destabilizing traditional livelihoods and local institutions. This study uses the adaptive capacity framework to explore the response of Primary Fishermen Cooperative Societies (PFCS) to changing policies, offering insights for more equitable, context-based decision-making in coastal systems.

*Additional people involved in the presentation, if any*

Present a Paper

Adyasha

Nayak

PhD Candidate

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Missoula

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United States

adyasha.nayak@umontana.edu

**Impacts of Coastal Aquaculture Act and Adaptive Capacity in Chilika's Social-Ecological System**

*One-sentence summary*

Attendees/audience members will walk away with understanding of adaptive capacity in localized contexts.

*Abstract*

The growing demand for seafood in the global North has driven the shift from capture fisheries to aquaculture. While this has benefited livelihoods, it has negatively impacted small-scale fisheries, as seen in Chilika Lagoon, India. Since the 1980s, aquaculture encroachment and commercial fishing have eroded traditional fishing areas and livelihoods. The 2023 Aquaculture Authority Act amendment deregulates aquaculture, potentially destabilizing traditional livelihoods and local institutions. This study uses the adaptive capacity framework to explore the response of Primary Fishermen Cooperative Societies (PFCS) to changing policies, offering insights for more equitable, context-based decision-making in coastal systems.

*Additional people involved in the presentation, if any*

Present a Paper

Brian

O'Riley

Recent Master's in History graduate from Eastern Washington University and research assistant to

Historical Projects LLC

Spokane

WA

United States

brian\_oriley@yahoo.com

**Profit and Pollution: Evaluating Cap-and-Trade’s Impact on Global Warming and the Environment**

*One-sentence summary*

Attendees/audience members will gain better knowledge of Cap-and-trade's impact on the environment, global warming, and disadvantaged communities.

*Abstract*

In efforts to mitigate concerns surrounding global warming, the United States began administering cap and trade policies to reduce air pollution as well as greenhouse gas emissions. It has been roughly thirty years since the implementation of Cap-and-trade, and the results have often been unclear, and contentious. Many argue that Cap-and-trade has negatively impacted conservation efforts while contributing to increased environmental injustice for disadvantaged communities. The unfair policy practices, lack of oversight, outright fraud and abuse, and sluggish gains in carbon reduction - all associated with Cap-and-trade policies - call for a revaluation of its impact on the environment and its efficacy in reducing global warming.

*Additional people involved in the presentation, if any*

N/A

Present a Poster

Ruby

Olsson

PhD Candidate

Australian National University

Reid

ACT

Australia

ruby.olsson@anu.edu.au

**Responding to ecological transformation: Comparing protected areas in the US and Australia**

*One-sentence summary*

Audience members will better understand RAD and futures thinking as a tool to respond to ecological transformation in protected areas.

*Abstract*

Natural resource managers and researchers are grappling with climate change driven transformation of protected areas globally. The Resist-Accept-Direct (RAD) framework emerged from the United States as a tool to assist responses to this transformation and has gained momentum in Australia. My research examines the role of futures thinking and RAD in responding to ecological transformation using a comparative case study of whitebark pine in US protected areas and snow gum decline in Australian Alps protected areas. I present initial findings from semi-structured interviews with 22 managers and researchers from the United States, and two multi-day workshops with approximately 40 Australian managers and researchers. Key findings examine how participants envisage the future, and the strengths and challenges of using RAD in these two contexts.

*Additional people involved in the presentation, if any*

Organize a Core Workshop Session: Presentations + Audience Interaction

Gabriel

Oppler

International Policy & Partnerships Specialist

Center for Large Landscape Conservation

Missoula

MT

United States

gabe@largelandscapes.org

Transboundary Connectivity Conservation: Experiences in North America and Around the World

One-sentence summary

Attendees/audience members will learn how ecological connectivity can be safeguarded between neighboring countries despite barriers.

Abstract

Ecological connectivity – including connected habitats, species movement and flow of natural processes – underpins ecosystems everywhere. Sustaining well-connected landscapes is a foremost adaptation strategy for biodiversity in a changing climate. Ecological connectivity conservation often requires working at large scales, transcending political borders. Transboundary initiatives require collaboration between institutions and individuals who sit on opposite sides of the border or speak different languages, but have common values and concern for the ecosystems they share. Hear about experiences and lessons learned from advancing connectivity conservation in North America and around the world. Presentations will be followed by discussion on long-standing and newly emerging challenges and opportunities in transboundary cooperation.

Additional people involved in the presentation, if any

Katie Deuel, Senior Conservation Director, CLLC  
Aaron Laur, International Connectivity Program Manager, CLLC

TBD among:  
Deb Davidson, Chief Strategy Officer, CLLC  
Phil Huffman, Senior Vice President, Quebec-Labrador Foundation  
Mikael Cejtin, Staying Connected Initiative Coordinator, TNC

Present a Poster

Ashley

Padvaiskas

Recent Graduate Student

c/o Paul Heintzman, University of Ottawa

Ottawa

Ont

Canada

pheintzm@uottawa.ca

**Alternative Parking Management Strategies: Implications for Visitor Use Management in Gatineau Park**

*One-sentence summary*

Attendees will better understand how parking management options and sustainable transportation alternatives can be applied to a park destination.

*Abstract*

This presentation reviews existing literature and case studies, to identify parking management options and sustainable transportation alternatives that could be implemented in the Meech Lake sector of Gatineau Park to address parking shortages during the busy summer season. Five alternative parking and transportation strategies are considered: variable rate parking fees; time-managed entry reservation systems; active modes of transportation; alternative access routes; and the exploration of a shuttle bus service expansion. Each approach is examined based on its advantages, limitations and public perceptions. The study informs park management of the most efficient means of managing visitor use with minimal pushback from the public to sustain current recreational activities and provide a safe and high-quality visitor experience.

*Additional people involved in the presentation, if any*

Paul Heintzman, Professor, University of Ottawa



Organize an Information-Sharing Session: Panel Discussion

Bing

Pan

Professor

Penn State University

State College

PA

United States

bingpan@psu.edu

Disaster Preparedness and Emergency Evacuation for National and State Parks

One-sentence summary

The session will allow participants learn integrating modeling and participatory study into emergency planning to enhance safety and communication.

Abstract

Climate change increases natural disasters, posing risks to national and state parks in the increasingly populated Wildland-Urban Interface. Our workshop synthesizes research on emergency evacuation and disaster preparedness from Rocky Mountain National Park (RMNP), Wrangell-St. Elias National Park and Preserve (WRST), and South Beach State Park (SBSP). We explore how agent-based modeling and participatory research improve disaster preparedness and evacuation. RMNP used microsimulations to analyze evacuation times and traffic conditions to identify prominent bottlenecks. WRST assessed risks and evacuation challenges along McCarthy Road to identify unique disaster response processes in a remote tourism destination. SBSP conducted tsunami evacuation drills to validate models and test efficacy of signage.

Additional people involved in the presentation, if any

Haizhong Wang, Ph.D. and Professor, Glenn Department of Civil Engineering, Clemson University  
Colby Parkinson, Doctoral Candidate, Department Recreation, Park and Tourism Management, Penn State University

Present a Paper

Taylor

Parker

Forestry Program Director

Sierra Nevada Alliance

Clemson

SC

United States

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**Haints: Ruptures of normativity in conservation stories of a forest in the United States’ South**

*One-sentence summary*

Audience members will better understand examining ruptures of normativity and outliers, as well as what we learned from them in our research site.

*Abstract*

People adjacent to or historically tied to a landscape can often lose the ability to have a meaningful voice in management decision making but often engage with areas nonetheless. When these non-dominant voices and concerns are revealed and/or named, it can create a ‘rupture of normativity that can have a destabilizing effect on how we understand a system. Typically, these ruptures are deemed outliers. In this investigation we call them ‘haints’ to anchor this work in the vernacular of the south. From 2018 to 2021, the authors set out to understand the management of a 18,400-acre New Deal forest, owned and operated by Clemson University (CU), a public land grant university in upstate South Carolina. This research is an examination of unexpected incidents or “outliers” in the dominant story of a place, yet integral to the story.

*Additional people involved in the presentation, if any*

Elizabeth Baldwin, co -author and co-presenter  
Drew Lanham, co-author

Organize a Core Workshop Session: Presentations + Audience Interaction

Colby

Parkinson

Ph.D. Candidate

Penn State University

University Park

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Applying Cyclist Behavior and Backgrounds to Inform e-Bike Policy on Public Lands

One-sentence summary

Audience members will understand perceptions, behaviors, and backgrounds of e-bikers and gain insight into cyclist science, policy, and planning.

Abstract

Cycling is one of the most popular outdoor activities in the U.S. Yet, the emergence of e-bike technology has instigated conflict among e-bikers and other park visitors, in part since e-bikers behave differently and have more diverse backgrounds than analog cyclists. This session will present data focused on perceptions, behaviors, and backgrounds of e-bikers to inform recreation planning. Considering the nascent and limited guidance for managing e-bikes on public lands, presenters will then facilitate breakout sessions to discuss presented research, federal guidance, and opportunities to address social and environmental issues relating to cycling.

Additional people involved in the presentation, if any

Co Organizers: Colby Parkinson & Abigail Fuesler

Paper Presenters:

Colby Parkinson - Recreation Specialization's Influence on Cyclists' Spatial Behaviors in the Age of e-Bikes in Grand Teton National Park

Abigail Fuesler - Identity and Attitudes in Public Comments Regarding e-Bikes on Federal Land

Cait M. Henry - Trail Pulse: Trail users' perceptions of recreational E-bike use in Michigan

Paper presentations followed by audience interactions in the form of breakout groups and a panel composed of all paper presenters and at least one practitioner.

Participate in the 3MR (Three-Minute Research Competition)

Colby

Parkinson

PhD Candidate

Penn State University

University Park

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**Insights on Managing Residents and Tourists during a Disaster in a Nature-Based Tourism Destination**

*One-sentence summary*

Attendees will learn about disaster response processes in nature-based tourism destinations, with insights for managing tourists and nearby residents.

*Abstract*

Disasters are increasing and presenting risks for people residing near and visiting wildland areas. However, disaster response processes in remote nature-based tourism destinations are understudied. This presentations details results from a case study using a participatory, mixed methods research design to explore intertwined disaster response processes among land managers, commercial operators, local responders, residents, and tourists along McCarthy Road in Alaska, which runs alongside and within Wrangell St. Elias National Park and Preserve. The study site is a microcosm of the complexities of emergency planning (e.g., multi-jurisdiction governance, limited infrastructure, environmental vulnerability, residents' self-reliance culture) for nature-based tourism communities with insights for disaster response in parks and protected areas.

*Additional people involved in the presentation, if any*

Dr. Bing Pan - Penn State University Recreation, Park, and Tourism Management Department  
Dr. Brian Staes - Oregon State University College of Engineering  
Dr. Haizhong Wang- Oregon State University College of Engineering  
Dr. Derrick Taff - Penn State University Recreation, Park, and Tourism Management Department  
Dr. Peter Newman - University of Vermont Rubenstein School of the Environment and Natural Resources

Participate in the 3MR (Three-Minute Research Competition)

Ande

Peersen

Master's Student

University of Montana

Livingston

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ande1.peersen@umconnect.umt.edu

**Land and the American Dream**

*One-sentence summary*

Attendees/audience members will better understand how Montanans from across the state are responding to changes in land access and tenure.

*Abstract*

The western US is conceptualized in our national imagination as a place of abundant land, where owning and accessing nature is integral and expected. Yet land is increasingly being consolidated across the west, limiting many people’s ability to buy property as well as access public lands. This project investigates how both newcomers and old-timers in three communities across Montana are responding to these changes, both materially and affectively. It utilizes a mixed-methods approach, employing both interviews and spatial analyses to document landscape changes and associated responses. Acknowledging that property ownership and access are intertwined with politics, economics, and power, and that conservation can only happen sustainably through equity and empowerment, this project is rooted in questions of social justice.

*Additional people involved in the presentation, if any*

Present a Poster

Susan

Pierce

Founder, Director

Hotspot Patrons

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**Addressing the Funding Gap in Private Lands Conservation in Global Biodiversity Hotspots**

*One-sentence summary*

Attendees/audience members will be introduced to an innovative method to support private lands conservation in global biodiversity hotspots.

*Abstract*

Our initiative provides a solution to address a critical gap in conservation financing - that of private lands conservation. Because between 70-90 % of the Earth's remaining native species exist on private lands it is imperative to find more ways to support existing private reserves and incentivize their creation. A group of 51 private reserves surrounding an UNESCO World Heritage Site National Park in what should be a buffer zone, are participating in HotSpot Patrons needs-assessment in the Cerrado, with another group of reserves participating in the Atlantic Forest- both biodiversity hotspot biomes in Brazil. Research results will be presented along with a portfolio of funding opportunities on both a reserve level, and a community level. Combining areas of sustainable products marketing with strict nature reserves will be encouraged.

*Additional people involved in the presentation, if any*

None

Present a Paper

Michael

Pretes

Professor of Geography

United States Air Force Academy/University of North Alabama

Florence

AL

United States

mjpretes@una.edu

**National Parks and “Mission Essential”: Teaching About Protected Areas at the U.S. Air Force Academy**

*One-sentence summary*

Teaching about national parks contributes to the training of future military officers by helping them understand what they are "fighting for."

*Abstract*

Many universities across the United States offer a course in national parks. A newcomer to this list is the U.S. Air Force Academy, where cadets are trained to become Air Force officers as well as receiving an undergraduate degree in their chosen major. Despite its location in Colorado within a short drive of several national parks, it was not until Spring 2025 that the Air Force Academy offered its first course on National Parks and Public Lands, taught by the two authors of this paper. In this presentation we reflect on the particular circumstances of teaching this course at a military academy, how a course on parks fits into the “mission essential” component of military preparedness, and how a course on national parks fits into the larger discourse on creating leaders of character and what it means to be an American.

*Additional people involved in the presentation, if any*

This paper is co-authored with Jason Lackey, U.S. Air Force Academy.

This paper is part of an Information Sharing Session - Invited Papers, organized by Randall Wilson and Michael Pretes. Other participants in this session are Yolonda Youngs, Leisl Carr-Childers, Michael Childers, Terence Young, and Randall Wilson.

Present a Poster

Ashelee

Rasmussen

Biological Illustrator

NRCC Research Associate

Pocatello

ID

United States

asheleerasmussen@isu.edu

**Roles of Art in Science Communication and Outreach**

*One-sentence summary*

Attendees/audience members will gain a greater understanding of how art can support science communication and enhance outreach efforts.

*Abstract*

A consideration of natural science research is the increasingly important role that the public plays in the support of conservation. Researchers need to make serious attempts to reach beyond the scientific community and describe the broader benefits of conservation to raise awareness, educate, and gain public support. Art is a tool that bolsters communication. Biological focused artwork supports outreach by bringing conservation topics into the visual realm to be more accessible to a wide audience. As researchers enlist artists in outreach efforts, art acts as a gateway to engage the public by focusing attention and telling visual stories exploring relationships or events. Biological artworks can be informative outreach elements that evoke curiosity and emotions that leave lasting impressions and inspire support for conservation.

*Additional people involved in the presentation, if any*

Andrew Ray, National Park Service, North Coast and Cascades I&M Network Program Manager



Organize an Information-Sharing Session: Panel Discussion

Lauren

Redmore

Research social scientist

ALWRI

Missoula

MT

United States

lauren.redmore@usda.gov

The Wild Next Door: Between City Limits and Sacred Lands

One-sentence summary

Attendees/audience members will hear from a range of voices one management challenges of urban proximate wilderness & engage with the storytellers.

Abstract

This session proposes to show a 45-min film (currently in edit) followed by a Q&A with movie directors, producers, and experts. The film is about the Alpine Lakes Wilderness (ALW) located outside of Seattle, WA. As recreational use increases, the Forest Service grapples with declining budgets to ensure wilderness character is preserved, though much on-the-ground work gets picked up by NGO partners who can be more creative in their project approaches. Tribal rightsholders grapple with the impacts of recreational use and the growing need to work with diverse NGO partners to influence visitor behavior. This film addresses questions of: what is wilderness, what is the ALW, what are the challenges facing urban proximate wilderness, and what are potential solutions.

Additional people involved in the presentation, if any

Mitchell Clark, Society for Wilderness Stewardship Fellow, filmmaker and CEO of Destroy Collective  
Chris Armatas, ALWRI Research Social Scientist  
Olga Helmy, ALWRI science communications specialist

Present a Poster

Michelle

Reilly

Biologist- Wilderness SME

Arthur Carhart National Wilderness Training Center

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Michelle\_Reilly@fws.gov

**Beyond Secretaries, Hostesses, and Cooks: The Women Who Battled to Save Wilderness**

*One-sentence summary*

Attendees/audience members will recognize a few of the important women in our wilderness history.

*Abstract*

In 1964, the 88th Congress passed The Wilderness Act. Many stories are told about the men leading the charge for wilderness preservation. These stories usually include three figures: Aldo Leopold, the well-known wildlife biologist, author, and ecologist; Robert Marshall, the philanthropist, forester, and cofounder and financier of The Wilderness Society; and Howard Zahniser, longtime president of The Wilderness Society and primary author of the Wilderness Act. But there are other figures whose stories are seldom told in wilderness history. Society viewed women as homemakers and housewives. It is no surprise then, that stories of women’s role in our wilderness history are seldom told. These stories have a critical place and need to be heard.

*Additional people involved in the presentation, if any*

Present a Poster

Michelle

Reilly

Wilderness Liaison to NWRS

USFWS- Arthur Carhart National Wilderness  
Training Center

Hamilton

MT

United States

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**Misinterpretations of Wilderness in the US Public Lands System**

*One-sentence summary*

Attendees will understand that 'wilderness' from stories about manifest destiny is not the same as "Wilderness" designated by the 1964 Wilderness Act.

*Abstract*

Since 1964, roughly 125 pieces of wilderness legislation added over 100 mill. acres of federal lands to the NWPS. But the history of the Act is not without struggle and despite the growth of the system, criticisms have persisted for decades, arguing that the Act is “dualistic, ethnocentric, and static.” One critic states the definition of wilderness offered in the Wilderness Act of 1964, “assumes, indeed it enshrines, a bifurcation of man and nature. This session investigates two criticisms: that the Wilderness Act perpetuate a dichotomy between man and nature and that Wilderness intimates a purity of the land and people. I will search for answers to questions such as: Where do these criticism stem from and are they warranted?

*Additional people involved in the presentation, if any*

Present a Paper

Michelle

Reilly

Biologist-Wilderness Subject Matter Expert

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Training Center

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**The Monsters We Create: A Discussion about Misinterpretations of Wilderness**

*One-sentence summary*

Attendees/audience members will understand where criticism of wilderness originated.

*Abstract*

Since 1964, roughly 125 pieces of wilderness legislation added over 100 mill. acres of federal lands to the NWPS. But the history of the Act is not without struggle and despite the growth of the system, criticisms have persisted for decades, arguing that the Act is “dualistic, ethnocentric, and static.” One critic states the definition of wilderness offered in the Wilderness Act of 1964, “assumes, indeed it enshrines, a bifurcation of man and nature. This session investigates two criticisms: that the Wilderness Act perpetuate a dichotomy between man and nature and that Wilderness intimates a purity of the land and people. I will search for answers to questions such as: Where do these criticism stem from and are they warranted?

*Additional people involved in the presentation, if any*

Organize an Information-Sharing Session: Presentation + Audience Interaction

Michelle

Reilly

Wilderness Liaison

USFWS- Arthur Carhart National Wilderness Training Center

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The Monsters We Create: Misconceptions about Wilderness in the US

One-sentence summary

Attendees will review historical documents and gain understanding about the misconceptions of designated wilderness in the US.

Abstract

The history of the Wilderness Act is not without struggle and despite the growth of the system, criticisms have persisted for decades, arguing that the Act is “dualistic, ethnocentric, and static.” One critic states the definition of wilderness offered in the Wilderness Act of 1964, “assumes, indeed it enshrines, a bifurcation of man and nature. This session investigates two criticisms: that the Wilderness Act perpetuate a dichotomy between man and nature and that Wilderness intimates a purity of the land and people. Where do these criticism stem from and are they warranted? Throughout the session, participants can interact via questions in a gaming platform on their phones (BravoZone) and 2 short video/audios will be played and asked for comment.

Additional people involved in the presentation, if any

Attendees will be able to use their phone to engage in interactive short questions by scanning a QR code that will be displayed on the projected screen. If possible, audio will be needed to play a historical recording. Please let me know if that's not possible so that I can rework that part of the presentation.

Present a Poster

Michelle

Reilly

Wilderness Specialist

Arthur Carhart National Wilderness Training Center

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**What is the interagency Arthur Carhart National Wilderness Training Center?**

*One-sentence summary*

Attendees/audience members will learn about the Center and be introduced to rewarding and challenging aspects of inter-dept training.

*Abstract*

There is one National Wilderness Preservation System in the United States. But, where is it? And who manages it? That's where things get interesting! The Wilderness Act of 1964 created one NWPS comprised of congressionally-designated wilderness on public lands managed by two different departments (Department of Interior and Department of Agriculture) and FOUR different agencies! Although the agencies have their own mission, they must manage designated wilderness under the same mandate, to preserve wilderness character. The interagency Center was created in 1993 and staffed by the four management agencies to provide consistency and collaboration in managing wilderness. This poster will provide participants with a brief history of the Center and aspects of interagency collaboration that can be both rewarding and at times challenging.

*Additional people involved in the presentation, if any*

Jimmy Gaudry- ACNWTC Director;  
Rob Burrows - ACNWTC -NPS;  
James Sippel - ACNWTC- BLM.

Present a Poster

David

Reynolds

Steering Committee Member

U.S. Biosphere Network

Medford

NJ

dreynolds@georgewright.org

U.S. Biosphere Network

One-sentence summary

Attendees/audience members will discover how science and stewardship can be applied across large landscapes and beyond parks and protected areas.

Abstract

Twenty-eight biosphere regions in the United States and 761 worldwide connect Parks and protected areas with landscapes where people live and work. These sites are internationally recognized by UNESCO with geographies uniquely designed to achieve conservation and sustainable development through collaboration.

Additional people involved in the presentation, if any

Meredith King, USBN-University of Michigan Graduate Communications Intern

Present a Poster

Will

Rice

Associate Professor

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**Data-driven design for more effective Wilderness trailhead signage**

*One-sentence summary*

Attendees/audience members will be able to gain a sense of how participatory design can make more effective signage.

*Abstract*

This poster presents findings from a study conducted at the Mount Massive Wilderness trailheads in Colorado. Visitors were invited to assemble their ideal trailhead sign using "puzzle pieces" that featured different graphic treatments and categories of information—such as Leave No Trace principles, wilderness regulations, trail condition reports, and maps. We analyzed visitor preferences to inform the design of more engaging, informative, and behaviorally effective trailhead signage. Conference attendees will have the opportunity to participate in the same hands-on activity and compare their preferences with those of wilderness visitors. Our goal is to spark discussion about how participatory design can help improve wilderness communication.

*Additional people involved in the presentation, if any*

Jeremy Shellhorn, University of Kansas  
Adalyn Vergara, University of Montana



Participate in the 3MR (Three-Minute Research Competition)

Trevor

Ross

Undergraduate Research Assistant

University of Montana, Wilderness and Recreation Management Lab

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**Measuring angler intra-site place attachment based on survey responses and GPS tracking.**

*One-sentence summary*

Attendees/audience members will better understand how the specific species targeted by anglers affects their location tendencies along a reservoir.

*Abstract*

How does the species targeted affect where along the reservoir these anglers travel? What could explain the variance in location tendencies between the range of species targeted? Using ArcGIS Pro, I measured qualitative survey data in combination with quantitative GPS data to track location tendencies within Blue Mesa reservoir based on what specific fish species anglers were targeting. I employed the use of analysis tools such as Kernel Density paired with a Quantile Distribution Method of Symbology (of measured point density) to show variance between the five different survey question responses for target species (kokanee, mackinaw, perch, trout, and other species).

*Additional people involved in the presentation, if any*

Present a Poster

Trevor

Ross

Research Assistant / Undergrad

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**The Blue Mesa Timeline: A Data Dashboard**

*One-sentence summary*

Attendees/audience members will better understand how GIS tools can be leveraged to analyze recreational behavior.

*Abstract*

The Blue Mesa Timeline is a data dashboard developed using three ArcGIS Online Applications (Experience Builder, Web Map, StoryMap) along with ArcGIS Pro to visualize recreationist behavior from quantitative GPS data paired with qualitative recreation survey data collected during the 2024 Summer season on Blue Mesa reservoir in Curecanti National Recreation Area. The dashboard allows end users to visualize a "day" or "summer" on the reservoir, with enhanced levels of interaction, zooming, panning, and variable enabling/disabling to view anglers targeting specific fish species, non-anglers, crowding sensitive users, regular and first-time visitors, solos and groups, and many other variables.

*Additional people involved in the presentation, if any*

Participate in the 3MR (Three-Minute Research Competition)

Audrey

Roy

Master's Student (M.Sc. in Environmental Sustainability)

University of Ottawa

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**A Shared Responsibility: The Environmental Political Economy of a Zero-Waste Banff National Park**

*One-sentence summary*

Attendees will understand the challenges of national park waste management and the benefits of zero waste practices.

*Abstract*

How can national parks achieve zero waste within their unique political, economic, and social contexts? Using an environmental political economy approach, my research examines waste management in Banff National Park – Canada’s most visited national park – and explores pathways for greater sustainability. As symbols of ecological integrity, national parks present an opportunity to lead by example. Improving sustainability in these highly protected areas could help drive broader adoption of sustainable practices across Canada. Ultimately, reducing waste in national parks can contribute to lowering Canada’s waste-related greenhouse gas emissions, which account for 17% of the nation’s annual methane emissions.

*Additional people involved in the presentation, if any*

Present a Poster

Audrey

Roy

Master's Student

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**Whose Parks? How to Meaningfully Consult Interest Holders in Managing National Parks**

*One-sentence summary*

Learn how to meaningfully consult interest holders in park mgmt, explore best practices, current gaps in Canada, and recommendations for improvement.

*Abstract*

This poster compares internationally recognized best practices for public consultation in park management with Park Canada's (PCA's) current consultation processes. It is based on a critical review of 29 PCA public and Indigenous consultation documents, identifying both their successes and shortcomings. While PCA aligns with global standards in areas like feedback, education, knowledge sharing, and transparency, significant challenges remain around low engagement, limited empowerment of local leadership, and ineffective Indigenous consultation. These gaps are concerning as national parks face growing visitor-capacity conflicts, reduced funding, and climate change impacts. Experts consistently emphasize the need for meaningful collaboration with interest holders and Indigenous communities to address these complex issues sustainably.

*Additional people involved in the presentation, if any*

Paul Heintzman (reviewer/supervisor)

Participate in the 3MR (Three-Minute Research Competition)

Isaac

Sanchez

PhD Student

University of California

Sonora

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United States

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**California's Delta in Motion: the state of the recreation economy and community wellbeing**

*One-sentence summary*

Attendees/audience members will be able to better understand few of the many issues affecting California's only National Heritage Area.

*Abstract*

This presentation is part of a study, which examines the economic and social dimensions of recreation and tourism in California’s Sacramento–San Joaquin Delta. Drawing from government and private-sector data, this work analyses employment, wages, infrastructure investment, and participation tied to the outdoor recreation economy. A mixed-methods approach integrates quantitative economic metrics with qualitative assessments of community wellbeing—centered on income, job stability, and climate vulnerability. Drainage from the Sacramento and San Joaquin rivers along with the Palmer Drought Severity Index are used to link economic conditions to drought and salinity stresses. Findings shown reveal how deeply the Delta’s recreation economy is intertwined to the lived experiences of people who live, work and visit the Delta region.

*Additional people involved in the presentation, if any*

Present a Paper

Wesley

Sarmiento

PhD Student

University of Montana

Missoula

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United States

wesley.sarmiento@umontana.edu

**Human visitation limits the utility of protected areas as ecological baselines**

*One-sentence summary*

Protected areas offer public enjoyment, but redistribution of wildlife signifies that additional care will be needed in what we perceive as pristine.

*Abstract*

A key goal of protected areas is the conservation of biodiversity. Increasing visitation, however, can compromise ecological integrity. A fundamental conundrum is that if parks are to serve as our most pristine places, then we must understand how human presence alters biological interactions. Species that redistribute themselves closer to people is of growing management concern because of 1) human safety, 2) animal health, and 3) ecological consequences. We examine redistribution patterns of an iconic species in Glacier National Park. Specifically, we focused on predator-avoidance and resource enhancement to test whether mountain goats mediate their distribution by increasing spatial overlap with humans. Our findings re-enforce the increasing complexities of natural area management because visitation is altering ecological interactions.

*Additional people involved in the presentation, if any*

Joel Berger, Colorado State University & Wildlife Conservation Society

Present a Paper

David

Sauchyn

Director / Professor

Prairie Adaptation Research Collaborative,  
University of Regina

Regina

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Canada

sauchyn@uregina.ca

**Co-creating Climate Adaptation Strategies for Indigenous Communities in Western Canada**

*One-sentence summary*

Co-created climate adaptation strategies address social justice, conservation of treaty and ancestral lands and vulnerabilities of Indigenous Peoples.

*Abstract*

This presentation addresses the Core Workshop Sessions related to climate change and social justice. It describes a partnership among our climate adaptation institutes and various Indigenous communities in western Canada. These communities are vulnerable to climate change stemming from socio-economic constraints on their adaptive capacity and climate impacts on their Treaty and ancestral lands. By co-creating community-relevant communication tools and climate services and weaving local knowledge with scientific expertise, we aim to bridge a significant gap in knowledge and capacity, resulting from a colonial system built on western science, void of Indigenous ways of knowing. These partnerships support culturally aligned economic vitality and exemplify strategies that address social justice and reconciliation with Indigenous Peoples.

*Additional people involved in the presentation, if any*

Jeff Baker, Tina Elliot and Laura Lynes  
The Resilience Institute, Canmore, Alberta

Organize an Information-Sharing Session: Sharing Circle

Erin

Seekamp

Professor and Executive Director, Climate and Sustainability Academy

NC State University

Raleigh

NC

United States

elseekam@ncsu.edu

Striving for meaningful engagement in climate adaptation planning of ancestral heritage sites

One-sentence summary

Attendees/audience members will learn and share guidance for meaningful engagement in climate adaptation planning efforts.

Abstract

Hear about our journey toward meaningful engagement and share your stories of setbacks and success. Our journey emerged from a pilot project with members of the Kootenai and Séliš-Qlispé Culture Committees about climate adaptation planning of traditional use areas stewarded located within Glacier National Park (theme 1). We will also share lessons we learned along the way, such as co-creating shared terminology. For example, we selected the term “traditional use areas” (vs archeological sites) to clearly articulate the association to living people and the spirits of human and non-human ancestors within landscapes (theme 2). The disassociation of people and ancestors from these places can harm those invited to engagement activities by perpetuating historical traumas associated with settler colonialism and forced displacement (theme 3).

Additional people involved in the presentation, if any

Michael Durglo, Jr., Session co-organizer and co-presenter  
Climate Change Coordinator, Confederated Salish and Kootenai Tribes



Organize an Information-Sharing Session: Sharing Circle

Craig

Shafer

NPS ecologist as of 2009

National Park Service (retired)

Arlington

Virgi

United States

cshafer@gmu.edu

**Publishing for Beginners**

*One-sentence summary*

Give the journal what they want in terms of subject, structure, and length while also fitting one of their article categories.

*Abstract*

Trying to publish an article in an outside venue for the first few times can be an intimidating experience unless you have an experienced co-author or graduate advisor to help you along. Many questions arise. What is the topic? What type of article should I write: original research, review, case study, or essay in a peer-reviewed journal, a book chapter if the opportunity arises, a law article, or a magazine article? Which journal or other venue should I submit to? How to deal with journal gatekeepers (the ones who determine if your submission is good enough to send on to the editor). How to encourage editor's interest so he /she wants to send your article out for review. Dealing with reviewer comments and possible rejection. And so on. There are books on this topic that cover more ground and I plan on recommending one of them.

*Additional people involved in the presentation, if any*

I plan to invite a few others besides myself to help introduce certain aspects of this subject and address questions that the group may have. In order to facilitate open discussion, the information sharing format may be the best choice for this event. For example, a bunch of soft couches or chairs arranged in a circle may be a good approach. I am no pro at publishing by any means, but I have learned a lot based on personal experience. If the group is mostly land managers, there are some special challenges they may face and overcome.

Christine Schonewald

Present a Paper

Ryan

Sharp

Associate Professor

University of Tennessee

Knoxville

TN

United States

rsharp19@utk.edu

**Exploring Economic Impacts of the Lewis and Clark National Historic Trail**

*One-sentence summary*

Attendees will understand the importance and methods for conducting economic impacts of long-distance trails.

*Abstract*

Understanding the economic impact of long distance trails such as the Lewis and Clark National Historic Trail (LECL) is a difficult endeavor. The distance of the trail is a challenge, but the diversity of sites along the trail provides an additional obstacle. This was the first attempt to understand the economic impact of LECL. The researchers included different museums, parks, and historical sites. On-site surveys were collected at 5 test locations in 2024, with 425 visitors completing the survey. Visitors at the 5 selected sites generated \$14.5 million in annual expenditures. Visitor expenditures supported an estimated 195 jobs in the Midwest and generated \$7.49 million in labor income for Midwestern families. This study established and demonstrated a methodology for conducting the economic impact of the entire LECL.

*Additional people involved in the presentation, if any*

Dr. James Maples - Co-PI - NOAA  
Taylor Bogucki - Graduate Student - University of Tennessee

Organize a Core Workshop Session: Hands-on Activity

Jeremy

Shellhorn

Professor of Visual Communication Design

University of Kansas / CC Co-lab

Lawrence

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**The Art and Science of Signage: Two examples and a design charrette**

*One-sentence summary*

Attendees/Audience members will leave with actionable design strategies, and prototype for their new sign!

*Abstract*

This session will introduce a new way of thinking about how we design effective signs in parks and protected areas. We'll begin with two presentations, which will serve to demonstrate a data-driven approach to signage design and testing. The first presentation will share findings from a signage experiment conducted on a beach in Lake Tahoe in summer 2025, in collaboration with the League to Save Lake Tahoe. The second presentation will share findings from a two-part study conducted in 2024 and 2025 on the effectiveness of universal symbol signs used in campgrounds, and proposes a set of redesigned symbols for improved communication. The latter half of the session will consist of a design charette, wherein participants will team up to apply the findings of these studies to applied park signage challenges, including redesigning universal symbols. Participants are encouraged (but by no means required!) to bring a sign or signage communication challenge of their own to the

*Additional people involved in the presentation, if any*

Co-Presenters: Dr. Will Rice, University of Montana  
Miranda Foster, University of Montana  
Adalyn Vergara, University of Montana  
Marilee Movius, The League to Save Lake Tahoe

Present a Paper

B. Derrick

Taff

Assistant Dean, College of Health and Human Development; Associate Professor, Recreation, Park and

Penn State University

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bdt3@psu.edu

**Informing human waste management strategies in parks & protected areas: Lessons learned**

*One-sentence summary*

Understand visitor behavioral patterns, perceptions regarding burial & bagging approaches, as well as current best practices for managing human waste

*Abstract*

Human waste disposal by outdoor recreationists is a significant global environmental issue. Despite the extent of this growing issue for human and environmental well-being, the sensitive nature of the topic has resulted in a lack of empirical research to inform management. To-date, this issue has largely been addressed through “Leave No Trace”-based education strategies involving either burying waste onsite, or carrying waste out of the area for later disposal. This presentation will combine findings from recent human waste-focused research from Rocky Mountain, Grand Teton, and Abel Tasman (New Zealand) National Parks and other U.S. Forest Service areas in an effort to inform current management strategies and future research.

*Additional people involved in the presentation, if any*

I'll be the only presenter, but my co-authors include:

Shari Edelson<sup>1</sup>, Jeff Dalley<sup>2</sup>, Chris North<sup>3</sup>, Lynette McLeod<sup>3</sup>, Toni Torepe<sup>3</sup>

<sup>1</sup> Department of Recreation, Park and Tourism Management Department Pennsylvania State University

<sup>2</sup> Department of Conservation, New Zealand

<sup>3</sup> University of Canterbury, New Zealand

Present a Paper

Levi

Tenen

Assistant Professor of Philosophy

Virginia Wesleyan University

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**Visit with Respect: An Indigenous, and distinctively American, Outdoor Recreation Ethic**

*One-sentence summary*

Attendees/audience members will learn about the Visit with Respect ethic, critique Leave No Trace, and think about a new outdoor ethic.

*Abstract*

“Leave no Trace” has been the dominant outdoor recreation ethic for decades. However, a new ethic is taking shape: “Visit with Respect” is being developed by the Bears Ears Education Center (BEEC), which works with federal agencies and tribes in the Bears Ears region. How does Visit with Respect differ from Leave No Trace? Should one be adopted over the other? I draw from my experience taking part in the BEEC's Visit with Respect training program to answer these questions. I argue that Visit with Respect is more inclusive of different traditions than Leave No Trace, but is limited in its current form. So, I synthesize the two and develop an Indigenous-inspired, distinctively-American, outdoor recreation ethic. The result is a general framework for encouraging visitors to reflect on how someone like them can visit an area with respect.

*Additional people involved in the presentation, if any*

None

Present a Poster

Levi

Tenen

Assistant Professor of Philosophy

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**Who should own public lands — Individual states, the Feds, or Tribes?**

*One-sentence summary*

Attendees will explore similarities between conservative and liberal criticisms of federal lands and see a consistent defense of public lands.

*Abstract*

Critics of federal lands can be found across the political spectrum. Some Republicans argue that federal ownership undermines state sovereignty, while some left-leaning thinkers argue that it undermine tribal sovereignty. These sovereignty-based concerns have not received much discussion, so I consider them. I first defend federal ownership from the Republican challengers by showing public lands promote unique values without unfairly limiting states' sovereignty or destroying their distinctive cultures. However, tribes did suffer serious historical injustices and federal ownership does undermine their cultures. So, I argue that tribes and the federal government ought to co-own today's federal lands. If done well, this would help restore tribal sovereignty while still providing the unique values of federal ownership.

*Additional people involved in the presentation, if any*

This poster draws from the work I am doing writing my first monograph, titled Public Lands: Who Should Own Them, and How Should They Be Managed? Presenting at the GWS is a great opportunity to test my ideas out with a diverse group of specialists. I am also presenting on the main program a separate project about Visit with Respect, an outdoor recreation ethic.

Present a Paper

Jennifer

Thomsen

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**Co-Creating an Integrated Climate Impact Assessment in the Little Rocky Mountains**

*One-sentence summary*

Attendees/audience members will learn about different methods that can contribute to a holistic approach to climate change response and planning.

*Abstract*

In partnership with the Fort Belknap Indian Community, we are adopting a holistic approach to climate change impact assessment in the Little Rocky Mountains that integrates traditional ecological knowledge with climate models. This range is home to numerous food and medicinal species of cultural importance. It is critical to understand how climate change has affected and will affect availability of these species and the cultural implications for the tribe. Adopting a holistic approach to climate change assessment will contribute to understanding the interconnected issues of protecting significant species and culture in their full complexity. Scenarios of future climate change impacts on the plant species and different scenarios for the community will be explored to inform planning and management decisions.

*Additional people involved in the presentation, if any*

Austin Afterbuffalo  
Dennis Longknife  
Michael Blackwolf  
Dave Sauchyn

Organize a Core Workshop Session: Presentations + Audience Interaction

Jocelyn

Torres

Chief Conservation Officer

Conservation Lands Foundation

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National Conservation Lands: Past, present, and future of lands beyond and between National Parks

One-sentence summary

Attendees will explore how NCLs management may evolve and innovate in concert with increasing development, climate and recreation pressures.

Abstract

Beyond and between National Parks lies another conservation jewel: Bureau of Land Management’s National Conservation Lands. For 25 years, National Conservation Lands have conserved, protected, and restored nationally significant lands and waters that have outstanding cultural, ecological, and scientific values. This panel brings together retired agency staff, Tribal and conservation leaders, and economic development experts to explore the past, present, and future of this unique and ever-evolving conservation lands system. From Indigenous co-stewardship to rural economic revitalization, the panelists will provide insights as to how National Conservation Lands provide proven solutions for balancing conservation, sustainable recreation, traditional uses, and energy production while delivering local economic value.

Additional people involved in the presentation, if any

Tentative Panelists:  
Bob Ratcliffe, BLM and NPS (retired)  
Carrie Hamblen, CEO/President, Las Cruces Green Chamber of Commerce  
John Leshy, DOI Solicitor (retired) for the BLM and NPS  
Hillary Hoffman and/or Charissa Mijjessepe-Wilson, Bears Ears Inter-Tribal Coalition  
John Todd, Wild Montana  
Chris Hill – CEO, Conservation Lands Foundation (facilitating)



Organize an Information-Sharing Session: Invited Papers

Isaiah

Tuolienuo

Research Assistant

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Protected Areas and Environmental Justice

One-sentence summary

Audience will explore various manifestations of environmental in(justice) in protected area management and emerging strategies to address them

Abstract

This session’s presentations explore the intersection of protected areas and environmental justice and ways to promote social and environmental justice. The first three presentations examine local communities’ rights over their natural resources, emphasizing the importance of socio-ecological justice, collaborative environmental governance, community agency, ecotourism, and alternative visions as successful strategies for achieving environmental justice. The fourth explores collaborative landscape stewardship and ways to foster inclusion and a sense of belonging among stakeholders. The final presentation provides a synthesis of case studies to illustrate the intricate relationship between protected areas, ecotourism, and environmental justice, and shares lessons for integrating these elements to promote just conservation outcomes

Additional people involved in the presentation, if any

Session co-organizers: Isaiah Tuolienuo and Keith Bosak

1. The Complementary Role of Justice and Social Capital in Influencing Just Outcomes in Resource Conflicts: The Case of the Atewa Range Forest Reserve, Ghana. Presented by Isaiah Tuolienuo, PhD Candidate, W.A. Franke College of Forestry & Conservation, University of Montana
2. Social-Ecological Justice Approach to Ecotourism: Examples from Cockpit Country, Jamaica. Presented by Boo Curry, MS Graduate, International Conservation & Development, W.A Franke College of Forestry & Conservation, University of Montana
3. Drivers and Dynamics of Collaborative Environmental Governance in Chilean Patagonia. Presented by Zac Hummel, MS Graduate, International Conservation & Development, W.A Franke College of Forestry & Conservation, University of Montana
4. Exploring Ways to Foster Belonging and Connection for Collaborative Landscape Stewardship and Environmental Justice. Presented by Shawn Johnson, Director, Center for Natural Resources and Environmental Policy, University of Montana
5. Exploring the Protected Areas, Ecotourism and Environmental Justice Nexus: An Overview and Synthesis of Case Studies. Presented by Keith Bosak, Professor & Chair, Department of Society and Conservation, W.A Franke College of Forestry & Conservation, University of Montana

Present a Paper

Carena

Van Riper

Associate Professor

University of Illinois Urbana-Champaign

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**Inclusive conservation in the Denali region of Alaska**

*One-sentence summary*

*Abstract*

The success of conservation initiatives often depends on the inclusion of diverse voices in planning and management. However, residents that live around protected areas have not been consistently prioritized in US protected area research and tend to hold relationships with landscapes that differ from tourists and resource managers. This project therefore sought to understand the viewpoints of residents from 10 communities surrounding Denali National Park and Preserve and Denali State Park through a five-year mixed methods project. Our presentation will synthesize results from multiple phases of research including an in-depth discussion forum that revealed multiple values ascribed to Denali landscapes and a longitudinal experiment that documented shifts in preferences for the future as a result of social learning across interest groups.

*Additional people involved in the presentation, if any*

William Stewart, Emeritus Professor  
Department of Recreation, Sport and Tourism, University of Illinois Urbana-Champaign

Devin Goodson, PhD Candidate  
Department of Natural Resources and Environmental Sciences  
University of Illinois Urbana-Champaign

Riley Andrade, Researcher  
US Fish and Wildlife Service

Dana Johnson, PhD Candidate  
Institute for Resources, Environment and Sustainability, University British Columbia

Evan Salcido, Postdoctoral Researcher  
School of Forest Resources, University of Maine

Rose Keller, Researcher  
Norwegian Institute for Nature Research

Participate in the 3MR (Three-Minute Research Competition)

Adalyn

Vergara

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**Beyond the Average Visitor: Refining Photo Norms for Crowding Perception on the Water**

*One-sentence summary*

Attendees/audience members will better understand the use of photo-norm evaluations to monitor and adapt to changing climate and visitor use.

*Abstract*

The rising number of visitors to parks and protected areas poses challenges for management in balancing the delivery of high-quality visitor experiences with the preservation of the natural environment. Photo norm evaluations are widely used in outdoor recreation research to assess thresholds and visitor acceptability of experience conditions, yet they often overlook setting-specific and individual characteristics. At Blue Mesa Reservoir in Curecanti National Recreation Area, managers need guidance to adapt to changing visitation and climate. This study refines photo norm models beyond density and the “average” visitor by incorporating 1) setting-specific factors, such as boat amount dispersion, and 2) visitor characteristics that influence perceptions of boater crowding and congestion using a mixed-linear model.

*Additional people involved in the presentation, if any*

Present a Paper

Adalyn

Vergara

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**Getting fishy: Using animal-movement theory to predict angler movement on a reservoir**

*One-sentence summary*

Attendees/audience members will further understand how shifting visitor use and climate conditions impact recreationist decision-making.

*Abstract*

Recreation dynamics in reservoir-based protected areas are growing more complex, requiring adaptive management. While surveys provide insight into visitor experiences, integrating GPS data reveals site-specific patterns, informing strategies for crowding and experience issues during a shifting climate. At Blue Mesa Reservoir in Curecanti National Recreation Area, this study uses surveys, GPS tracks, and animal-movement theory to examine visitor experiences focusing on 1) crowding and congestion, 2) visitor conflicts, and 3) fishery-related impacts. In summer 2024, 308 pre-surveys with GPS-tracked boating routes and 290 post-surveys were collected. Early findings show that commercial use, target species, and angler skill levels shape spatial behavior. Results will further visitor use knowledge to aid data-driven planning for managers.

*Additional people involved in the presentation, if any*

Adalyn R. Vergara<sup>1</sup>, William L. Rice<sup>1</sup>, Trevor Ross<sup>1</sup>, Jennifer M. Thomsen<sup>1</sup>, Hayley Johnson<sup>1</sup>, Adyasha Nayak<sup>1</sup>, Ashley D’Antonio<sup>2</sup>, Cindy Leary<sup>3</sup>, and Christopher A. Armatas<sup>4</sup>

<sup>1</sup>The University of Montana Department of Parks, Tourism, and Recreation Management

<sup>2</sup>The Oregon State University Department of Forest Ecosystems and Society

<sup>3</sup> The University of Montana School of Public and Community Health Sciences

<sup>4</sup>The Aldo Leopold Wilderness Research Institute

Present a Poster

Lauren

Wenzel

MPA Advisor

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**North American Marine Protected Areas Network**

*One-sentence summary*

Attendees/audience members will understand that there is a network of managers across North America to foster effective management of marine parks.

*Abstract*

NAMPAN is a network of resource agencies, Marine Protected Area (MPA) managers, and other relevant experts from Canada, Mexico and the United States. This network aims to strengthen the conservation of biodiversity in critical marine habitats throughout the region and to facilitate transboundary cooperation and information exchange among MPA experts and managers. NAMPAN is coordinated by the Commission for Environmental Cooperation.

*Additional people involved in the presentation, if any*

NAMPAN Steering Committee members: Jason Boire and Chantal Vis, Parks Canada; Jaime Gonzales Barrera, CONANP; Marisol Hernandez, CONANP; Gonzalo Cid, NOAA; Catherine Boyd Michaud and Lucie Robidoux, CEC

Present a Poster

Brey

Weygandt

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## A Rapid Review of Participatory GIS Scholarship Centering Tribal Sovereignty

### *One-sentence summary*

Attendees/audience members will gain a deeper understanding of PGIS methodologies that support tribal data sovereignty.

### *Abstract*

Participation Geographic Information Systems (PGIS) offer robust tools for accessing and describing local knowledge with spatial representation. Indigenous perspectives in PGIS are often inconsistently or inadequately represented or entirely absent. We examined literature on Indigenous involvement in PGIS. Included articles (n = 8) highlight data sovereignty protocols, inclusive spatial representation, and the integration of traditional ecological knowledge (TEK) into GIS. Findings suggest Indigenous participation requires methodologies that include oral histories, non-cartographic spatial knowledge, and reciprocal—not extractive—research practices. These insights contribute to a broader understanding of how GIS can identify directions for future scholarship that advance PGIS, research partnerships, and center tribal data sovereignty.

### *Additional people involved in the presentation, if any*

Chris Zajchowski; University of Idaho, Assistant Professor, College of Natural Resources  
Nathan Moody; University of Idaho, Instructor, College of Natural Resources  
Christopher Armatas; USDA Forest Service, Aldo Leopold Wilderness Research Institute, Social Scientist  
Monika Derrien; USDA Forest Service, Pacific Northwest Research Station, Research Social Scientist  
Shanny Spang Gion; University of Idaho, Visiting Tribal Scholar, College of Natural Resources

Organize a Core Workshop Session: Presentations + Audience Interaction

Bob

Wick

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**The Essential Role of Photographs in Building Support for Conservation: National Conservation Lands Case Study and How-To Discussion**

*One-sentence summary*

Attendees will learn photo techniques and how public perspectives on the rewilding of impacted areas have evolved BLM’s mission.

*Abstract*

A recent Backpacker Magazine article sums up the importance of images in building recognition of the once underappreciated lands managed by our nation’s largest public land steward, the Bureau of Land Management. While the article profiled me — I served for decades as BLM’s unofficial photographer — what I primarily want to share with workshop attendees are my experiences in documenting these special places and some techniques anyone can use to take better photos of their special places. First, I will share background on the emergence and growth of the BLM’s National Conservation Lands with examples of the integral role of image use in the protection and management of these special places. I will then share tips and techniques for making a good image (including post processing) and making them available & easy for media use. This will be a discussion where participants can bring questions and share their own ideas.

*Additional people involved in the presentation, if any*

Present a Paper

Clemens

Wilson

Masters Student, Research Assistant

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**Recreational Value and Park Attributes: A Non-Market Valuation Approach**

*One-sentence summary*

Attendees/audience members will better understand which park attributes have high community value and how that value is estimated.

*Abstract*

Parks provide numerous benefits to visitors, they can be a valuable input for local community health and recreation. The difficulty is that parks of different varieties and with different attributes provide varying levels of community value. This study aims to understand this dynamic between park attributes and value. Using non-market valuation techniques and big mobility data, this study will quantify which attributes or combination of attributes, namely sports facilities and walking paths/trails, are most valuable to localized communities. Limited park investment resources mean that managers need to identify and expand the park attributes that are most beneficial to park visitors, which might increase visitation and further justify the park's continued existence.

*Additional people involved in the presentation, if any*



Present a Paper

Randall

Wilson

Professor of Environmental Studies

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**Frameworks and Ladders - National Parks and Protected Areas in the College Classroom**

*One-sentence summary*

Attendees will better understand how to educate students and the general public about the importance of public lands

*Abstract*

At first glance, national parks can seem a rather simple and attractive subject of study for students. They associate parks with beautiful landscapes, recreation or family vacations that render fond memories. But the study of parks can quickly devolve into encyclopedic accounts filled with a litany of facts that quickly overwhelm students (and the general public). This paper articulates an approach using historical and theoretical frameworks to provide context and continuity in class discussions, coupled with “laddering” devices aimed at bringing these rather abstract ideas “to the surface” as relatable individual experiences. These pedagogical strategies help students to gain a better understanding of the importance of public lands as well as the challenges faced by managers related to environmental justice and climate change.

*Additional people involved in the presentation, if any*

I will be submitting a session proposal with invited papers (forthcoming) and this paper will be one of the invited papers in that proposed session. I am co-organizing that session with Dr. Michael Pretes.

Organize an Information-Sharing Session: Invited Papers

Randall

Wilson

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Teaching About National Parks: National and International Experiences

One-sentence summary

Attendees/audience members will gain a better understanding of how to educate students and the general public about the importance of public lands

Abstract

This session centers on strategies for teaching about national parks and protected areas in both the undergraduate classroom and to the public writ large. How we educate future generations and general audiences about parks and protected areas is critical to ensuring their continued viability in the decades to come. With this in mind, we explore how educators present and explain the role of parks in responding to the impacts of climate change, addressing issues of social and environmental injustice, and conserving both natural and cultural heritage. In this session leading public lands scholars will share their most effective pedagogical strategies and engage with audience members in a robust discussion of how these ideas may be applied to public education and understanding.

Additional people involved in the presentation, if any

Session Co-Organizer is Professor Michael Pretes

Invited Paper Presenters:

1. Prof. Michael Pretes and Lt. Jason Lackey - (not sure of title yet)
2. Prof. Michael Childers - What is the Purpose of the National Parks
3. Prof. Terry Young - Teaching Conservation in Africa
4. Prof. Yolonda Youngs - (not sure of title yet)
5. Prof. Randall Wilson - Frameworks and Ladders

Participate in the 3MR (Three-Minute Research Competition)

Ava

Worbets

Graduate Assistant

Institute for Tourism and Recreation Research  
(University of Montana)

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**Shifting Landscapes: How Recreation-Based Economies Redefine Sense of Place in Trail Communities**

*One-sentence summary*

Attendees/audience members will better understand the social impacts of recreation development on rural communities.

*Abstract*

This research examines the impact of economic transition on sense of place in five rural Montana communities along the Continental Divide Trail (CDT) that have experienced the decline of traditional industries. The study focuses on how the shift to amenity-based economies influences community identity, stakeholder attachment, and perceptions of tourism and recreation among locals. Using qualitative methods and Erfani's framework of sense of place, the research explores the interplay between individuals, communities, and place. The study aims to contribute to literature on sense of place theory, rural economic transition, and impacts of long-distance trails. It seeks to provide insights for developing strategies that align with community values, promote economic diversification, and preserve local culture in transitioning rural areas.

*Additional people involved in the presentation, if any*

Present a Paper

Shi

Xue

phd student

University of Illinois Urbana Champaign

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**Values and ecosystem services shape environmental concern in Alaska, USA**

*One-sentence summary*

Attendees will gain insights into how values and environmental indicators shape public responses to climate change, guiding conservation strategies.

*Abstract*

Our research explores how residents in Alaska respond to shifts in climate patterns and the associated changes in three ecosystem services: water yield, carbon sequestration, and sediment retention from 2005 to 2020. By integrating social and ecological data, we aim to understand the factors influencing public perception of global environmental change. We found that biospheric and altruistic values are positively correlated with environmental concern, while eudaimonic values show less sensitivity. Our findings highlight the importance of combining psychological constructs with contextual environmental indicators to better understand the public's response to climate change and inform future conservation efforts. This approach offers insights into sustainable solutions for addressing environmental change.

*Additional people involved in the presentation, if any*

Organize a Core Workshop Session: Presentations + Audience Interaction

Yonit

Yogev

retired seasonal national park ranger/unaffiliated researcher

n/a

Olympia

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DEI in Environmental Stewardship: Past and Present Challenges

One-sentence summary

Attendees/audience members will have a chance to discuss future pathways to DEI in a supportive, informal sharing session.

Abstract

Join an informal open discussion on the evolving challenges facing those who want to promote diversity, equity, and inclusion as essential elements of environmental stewardship. My DEI journey began in 2013 when I began researching the National Park Service’s history of addressing DEI, its dark history, and slowness to mitigate the systemic racism within the service. As we all are aware, today there is a full-on backlash against DEI. Come share your experiences and insights as we talk about ways we can move forward together.

Additional people involved in the presentation, if any

unknown at this time

Present a Paper

Terence

Young

Professor Emeritus of Geography

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**Teaching Protected-Area Conservation to "Africa's Potential Leaders"**

*One-sentence summary*

Attendees/audience members will learn that Interior's various protected areas were used to teach utilitarian conservation to students in the 1960s.

*Abstract*

Students today can enroll in classroom and field courses about protected areas (PAs), but such opportunities are not new. In 1961, the Interior Department launched the African Student Program to “introduce” African students studying at US universities “to the conservation of natural resources.” Initiated by Secretary Stewart Udall, the program offered a curriculum to men deemed “Africa’s potential leaders.” But, while a conservation student today might expect a course to emphasize biogeochemical cycles, biotic communities, and sustainability, when the environmental movement was emerging, Interior’s 5 land-management agencies used PAs to teach utilitarian courses about conserving the natural resources “needed to sustain the American economy and way of life.” My presentation analyzes the ASP’s curriculum, methods and consequences.

*Additional people involved in the presentation, if any*

Session Co-organizers - Randall Wilson, Gettysburg College & Michael Pretes, University of Northern Alabama.

Present a Paper

Bill

Youngs

Professor of History

Eastern Washington University

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**Making a Difference: Nathaniel Langford and George Wright- National Park Creation and Transformation**

*One-sentence summary*

Attendees/audience members will have a deeper understanding of the work of Langford and Wright, and learn lessons on influencing conservation.

*Abstract*

Many advances in preserving our natural environment came about because of work by far-sighted individuals. In the case of National Parks, preservation exists partly because of the efforts of such visionaries. I propose to describe the work of two such individuals and highlight features of their work that provide guidelines for modern conservation advances. Nathaniel P. Langford was the foremost publicist for Yellowstone National Park (1872). Today, we might call him an “influencer.” George Melendez Wright created (and financed) a new branch of the National Park Service focusing on park biology, most notably bird protection. Through his writings and by his example, he, too, was an influencer, helping make biological awareness a permanent feature of park management. I will explore the question, what can we learn from them today?

*Additional people involved in the presentation, if any*

Present a Poster

Bill

Youngs

Professor of History

Eastern Washington University

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WA

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**National Park Studies at Eastern Washington University**

*One-sentence summary*

Attendees and audience members will learn how one regional university is fostering sustainability and educating their students in park studies.

*Abstract*

Eastern Washington University is engaged in National Park and sustainability projects at many levels. For example, we have a major new endowment to support National Park studies, a survey history course and research seminar on National Parks, and related courses in many other departments including biology, geology, and literature. The university is engaged in a "Prairie Restoration Project," designed to plant native grasses on a large tract of university-owned Palouse land adjacent to the university. We also have a web site called [nationalparkhistory.com](http://nationalparkhistory.com).

*Additional people involved in the presentation, if any*



Present a Paper

Yolonda

Youngs

Professor of Environmental Studies & Geography

California State University, San Bernardino

San Bernardino

Calif

United States

yyoungs@csusb.edu

Teaching Experiential Learning and Field Data Collection in U.S. National Parks and UNESCO Sites

One-sentence summary

Attendees/audience members will learn about field based courses and experiential learning approaches in national parks and protected areas.

Abstract

Tracing the impacts of climate change on national park and UNESCO landscapes is of utmost concern in the Anthropocene. Long term environmental monitoring (LTEM) research aims to monitor and document national parks and protected area landscapes for the effects of climate change over time. This paper presents case studies from a national parks course in an environmental studies and geography program that leverages field sites in Grand Teton National Park Wyoming and Channel Islands National Park and UNESCO Biosphere Reserve in California to provide experiential learning opportunities for undergraduate and graduate students. Students engage in an active faculty-led research project, learn field methods, work collaboratively with state and federal land agency researchers and managers, and create public engagement products and events.

Additional people involved in the presentation, if any

I am presenting a paper in an Invited Papers Information Sharing Session titled "Teaching About National Parks" organized by Randall Wilson and Mike Pretes.

Organize a Core Workshop Session: Presentations + Audience Interaction

Alice

Yue

National Science Advisor, Manager Climate and Conservation Science

Parks Canada

Montreal

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Protected Areas: Everything Including the Carbon Sink

One-sentence summary

Attendees/audience members will better understand effective ecosystem carbon accounting approaches in protected areas.

Abstract

Carbon accounting is foundational to developing front-line strategies to protect carbon sinks and enhance carbon sequestration for climate change mitigation in protected areas. While progress has been achieved to reduce emissions from operations (e.g. infrastructure assets and transportation), there remains a knowledge gap on effective approaches and activities for ecosystem carbon. This session will share Parks Canada's ecosystem carbon accounting approaches; policies and directions for conservation and enhancement of carbon sinks and sequestration; and examples of the integration of approaches in park through management planning and restoration activities. Outcomes from the session will help to inform the development of coherent and effective approaches for protected area practitioners.

Additional people involved in the presentation, if any

Trevor Shiomi, Sustainability Manager, Parks Canada

Present a Paper

Chris

Zajchowski

Assistant Professor

University of Idaho & Idaho Department of Parks and Recreation

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Assessing the Impact of Idaho House Bill 93 on Idaho State Parks

One-sentence summary

Attendees/audience members will weigh the revenue benefits with potential impacts to access and campground utilization.

Abstract

We examine the impacts of Idaho House Bill 93 (HB93), a differential pricing policy introduced in 2021 in response to record Idaho State Park visitation during the COVID-19 pandemic. HB93 prioritized access for Idaho residents by increasing use fees for nonresidents at select state parks. Using visitation data from five demonstration parks, we compared resident and nonresident visitation, duration of stay, and revenue generation before and after implementation. Our analysis reveals a i) 15.3% increase in Idaho resident reservations and a reduction in non-resident reservations, ii) modest increase in duration of visitor stay, and iii) 31.9% increase in revenue generation. However, parks experienced a reduction in total reservations, in one case by 27.1%, raising further questions about demand and substitution effects.

Additional people involved in the presentation, if any

Rebecca Honsinger, Idaho Department of Parks and Recreation  
Katherine Lee, University of Idaho  
Chelsea Pennick, University of Idaho

Present a Paper

Chris

Zajchowski

Assistant Professor

University of Idaho & Idaho Department of Parks and Recreation

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**Balancing Prairie Stewardship and Recreation Access**

*One-sentence summary*

Attendees/audience members will evaluate the application of the IVUMF in conservation and visitor use planning in a State Park context.

*Abstract*

The Palouse Prairie is one of the most threatened ecoregions in North America. We detail the initial two years of conservation and visitor use planning and management efforts at McCroskey State Park, a site with intact prairie remnants. We highlight iterative data collection and experiential learning activities for undergraduate and graduate students guided by the Interagency Visitor Use Management Framework. Activities include interviewing stakeholders, mapping trails, developing interpretative media, planning restoration and travel management alternatives. Park staff, conservation groups, Friends' groups, and others assisted with building the foundation, defining visitor use management direction, and identifying management strategies for balancing prairie preservation and outdoor recreation access.

*Additional people involved in the presentation, if any*

Mary Engels, Assistant Professor, University of Idaho  
Nathan Blackburn, Park Manager, McCroskey State Park  
Keith Jones, Natural Resource Manager, Idaho Department of Parks and Recreation

Present a Paper

Sharon

Zou

Assistant Professor

University Of Illinois At Urbana-Champaign -

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**Recreation Fees in Parks and Protected Area**

*One-sentence summary*

Attendees will understand how recreation fees impact access and equity, and explore strategies to support both conservation and visitor needs.

*Abstract*

As parks and protected areas face increasing visitation and funding constraints, effective financial strategies are essential to ensure their long-term sustainability. Drawing on the current literature, we examine the role of recreation fees in managing and sustaining funding for parks and protected areas. This literature review will explore the rationale and debate behind implementing recreation fees and their impacts on accessibility and visitor behaviors. It will also address potential challenges, including equity concerns and public perceptions of fees, as well as providing potential strategies (e.g., messaging, fee structure design) to address these challenges, offering a balanced perspective on how recreation fees can support both conservation efforts and visitor experiences.

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