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double feature

Journal of Wilderness

December 2023 | Volume 29, Number 2 | ijw.org

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International Journal of Wilderness

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—Chad P. Dawson, IJW Editor-in-Chief Emeritus



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International Journal of Wilderness (IJW) publishes three issues per year (April, August, and December). IJW is a not-for-profit publication.

MANUSCRIPTS TO: Robert Dvorak, Dept. of Recreation, Parks and Leisure Services, Central Michigan University, Room 108 Finch Hall, Mount Pleasant, MI 48859; Telephone: (989) 774-7269. E-mail: dvora1rg@cmich.edu.

BUSINESS MANAGEMENT AND SUBSCRIPTIONS: The WILD Foundation, 717 Poplar Ave., Boulder, CO 80304, USA. Telephone: (303) 442-8811. E-mail: info@wild.org.

SUBSCRIPTION RATES (PER VOLUME CALENDAR YEAR): Subscription costs are in U.S. dollars only -- Online subscriptions for individual subscribers \$30; group online subscriptions for 50 people or less \$100; group online subscription for 100 people or less \$200; for agency-wide subscriptions or group rates of 100 people or more, contact adam@wild.org. No print journals will be available in 2020. No refunds.

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Running through the trees. **Photo credit:** Jed Villejo on Unsplash

Reflections on Wilderness 60 Years after the Civil Rights and Wilderness Acts

by **LAUREN REDMORE** and **ABY SÈNE-HARPER**, SPECIAL ISSUE GUEST EDITORS

The American Wilderness Myth?

America's dominant narrative of the origin of a beloved wilderness often centers Aldo Leopold in a heroic fight at the turn of the century against rapid industrialization that occurred at the expense of nature. Wild spaces, so the story goes, needed preservation from and for the people, so that future generations would know what it means to be self-reliant in pristine nature far away from civilization (Nash 2014). These future generations could experience a re-creation of the ancient human connection to nature. In this story, wilderness is at once a safeguard for the environment and wild beings, and an escape for modern humans from the ills of industrial society (Rashkow 2014; Cronon 1996).

Yet wilderness is more than an ideology and more than a practice of conservation and environmentalism. Throughout the history of the United States, wilderness has been entangled with both oppressive forces and spaces of resistance (e.g., LaPier 2021; Davis 2019). In this way, wilderness is complex in that each individual and group has their own (often conflicting) value, meanings, and experiences with wilderness. It is also dynamic as individuals and groups are



Lauren Redmore



Aby Sène-Harper

malleable and influenced by internal and external forces. To boil wilderness down to a singular thing, meaning, or experience can perpetuate ideologies that erase the experiences, cultures, and values of oppressed groups. Wilderness has never been and will never be a singular idea, story, value, or experience to all people.

Contested Ideas of Wilderness, Past and Present

Ideas of wilderness are grounded in starkly oppositional values pertaining to the landscapes and human–nature relations. For example, wild spaces have long embodied contestations between the White settler colonial regime and Black and Indigenous people (Sène-Harper, Mowatt, and Floyd 2022). Eurocentric ideals of wilderness situated wild lands as pristine sanctuaries unaltered by civilization (Nash 2014), though, as William Cronon pointed out, “Far from being the one place on earth that stands apart from humanity, it is quite profoundly a human creation...wilderness hides its unnaturalness behind a mask that is all the more beguiling because it seems so natural” (Cronon 1996, p. 7).

But long before Western scholars began to challenge assumptions about the naturalness of wilderness, Indigenous land and water protectors contested the wilderness ideology as they mounted resistance against their dispossession for the establishment of our national parks (The Wilderness Society 2022; Spence 1999). Through acts of resistance in wilderness, Black and Indigenous people reassert their belonging in spaces, preserve Indigenous ways of life, and maintain relationship with each other, the land, and their more-than-human kin (e.g., Estes 2019; Gilio-Whitaker 2019; Mar 2010).

Wilderness is inherent to colonial imaginaries about “taming the wilderness” that are central to the populist “frontier ideology” and legitimized the genocidal settler conquest by White nationalist interests (Dunbar-Ortiz 2018 p. 208). Today, media representations of America’s parks and protected areas continue to come with claims about these “more than scenic places” that “tell our story and show who we are” (National Geographic 2015). Yet these representations do not represent a unified truth given that Indigenous anticolonial fighters and Black liberationists and abolitionists rejected the nationalist landscape mythos that wilderness represented and the idea of a unified nation imposed upon them by White settlers (Opperman 2020; Sène-Harper, Mowatt, and Floyd 2022; Dunbar-Ortiz 2021). Instead, many long-underserved and oppressed Americans advance alternate visions of wilderness through “counter-geographies” or landscape imaginaries to define spaces for themselves and destabilize dominant and exclusionary representations (e.g., Madera 2015; Schmidt 2021).

Alternative Visions of Wilderness

While many counter-geographies of wilderness exist, we highlight two. In particular, Indigenous activists have long shared their own visions of wilderness that are as diverse as the languages spoken across Turtle Island prior to European arrival. For example, Chief Luther Standing Bear, chief of the Oglala Sioux in 1905, who later became an actor, shared that:

We [the Sioux] did not think of the great open plains, the beautiful rolling hills, and winding streams with tangled growth as “wild.” Only to the white man was nature a “wilderness” and only to him was the land “infested” with “wild” animals and “savage” people. To us it was tame. Earth was bountiful and we were surrounded with the blessings of the Great Mystery (Standing Bear 2006, p. 62).

Wilderness as a place free from people, in other words, did not exist because nature is inseparable from people. Yet as Europeans began to settle the Americas, they "discovered" a vast wilderness inhabited by a diversity of Indigenous peoples, both of which they believed were at once dangerous and also could be tamed for the growth of their wealth and empire (Nash 2014). Alongside enslavement of Indigenous Americans to begin the settlement project, Africans were captured and forced to endure grueling passage across the Atlantic toward generations of enslavement. Poor Europeans, too, desperate for a new life with opportunity signed away their rights in exchange for passage to the New World where they would serve for years as indentured servants (Morris 2022). All were seen as expendable bodies capable of transforming natural capital to wealth. Yet many indentured and enslaved people sought freedom in the impenetrable wildernesses, often in the lowland swamps across the East Coast. Historian J. Brent Morris described how escaped enslaved peoples of all races sought freedom from tyranny of plantation capitalism in the safety of the Great Dismal Swamp:

The wild Dismal Swamp was, put simply and literally, out of control. It was a physical reminder that for all the symmetry and precise angles of the world exterior to the swamp, the ideal ordered world of the Tidewater could never be fully achieved.... It was also becoming dangerous for the sanctuary it offered the equally untamed "dregs" of society who were, it seemed, settling together in the Dismal. White, Red, Black, and "tawny," the swamp beckoned to them as an outlaw's haven.... What made the marronage of these outcasts even more vexing to white elites was the notion that they had actively rejected "civilization," embraced the wildness of the swamp, and regressed into barbarism, an animal state of nature (Morris 2022, p.45).

What if instead of romantic Anglosaxon ideals of wilderness as escape from civilization through recreation of "primitive" human conditions in pristine nature, we celebrated a Lakota vision of wilderness as inseparable from humanity? What if instead of the origin of wilderness as an antidote to industrialization, we heralded wilderness as places where diverse and oppressed peoples created collaborative spaces as an act of rebellion and freedom from tyranny? We might learn that wilderness is compatible with diverse cultures, perspectives, and legacies, and we might locate values within wilderness that connect us all on the path toward a freer and more just society.


Wilderness for a Diverse America on the Eve of the 60th Anniversary of Passage of the Wilderness Act and Landmark Civil Rights Laws

In choosing the theme of this special issue, Wilderness for a Diverse America, we anticipated many of the challenges associated with the fact that neither wilderness nor diversity are singular: neither can be defined succinctly, measured with certainty, or valued unanimously. The 88th Congress that passed the Wilderness Act in 1964 was far from representative of the American public – most members of Congress were white, able-bodied men – yet that Congress also passed landmark civil rights laws, including the Civil Rights Act of 1964, the Equal Pay Act, and more. As Lauret Savoy wrote 10 years ago on the 50th anniversary of the Wilderness Act and the Civil Rights Act,

Ending Jim Crow segregation and protecting wild land have more to do with each other than meets the eye.... Their energies converged two remarkable months apart in 1964 with two laws that redefined relations between citizens and the American land, in terms of rights and access for all versus restraints on where and how people could live with dignity (Savoy, 2014).

The strands of conservation and civil rights are entwined not only in past landmark legislation but also in our future as a nation and a global society. Now, on the eve of the 60th anniversary of the passage of both the Wilderness Act and the Civil Rights Act, we examine what wilderness means for a country in progress, where participation in society is constantly being renegotiated, from leadership and representation to legal rights and protections to who is visible in public spaces. In other words, as more Americans can participate more fully in society, this issue examines how the very connections to, interpretations of, and ways of relating with wilderness are subject to change.

We open this issue with perspectives from Amanda Grace Santos and other emerging land management professionals on what diversity, equity, inclusion, and access in wilderness means to them, and an exclusive interview with Bryant Waupoose Jr., executive director of Medicine Fish, a nonprofit supporting Menominee youth through healing experiences on the Wild and Scenic Wolf River and beyond. Next, Brett Quin and Erin Drake share their work advancing wilderness accessibility for people with disabilities, and Kimm Fox-Middleton shares a creative solution toward getting early career land management professionals excited about sharing with and learning from a retiring wilderness workforce. Adrienne Lindholm shares the work of the National Park Service to reimagine a more inclusive wilderness concept using a case study of Glacier Bay National Park, Alaska, and Lauren Redmore and coauthors led an effort to understand what wilderness management professionals would like to see from an interagency toolbox for diversity, equity, and inclusion. Kelsey Phillips and Will Rice share findings from a scoping review to understand what the literature says about fairness and equity in US river recreation allocation systems, while Elena Thomas and coauthors share results from a study to examine underserved community member perspectives on wilderness character in Everglades National Park. This issue wraps up with two international contributions, including an exploration by Ezekiel Adesawe of what wilderness means in Yorùbá Culture, specifically in the Osun-Osogbo Sacred Grove. Rayna Benzeev, Diego Melo, and Devon Reynolds conclude this special issue with a movie review of National Geographic's film *The Territory*, which shows how one Indigenous community, the Uru-eu-wau-wau, defend their claim to land through advanced technologies and asks us what role the Brazilian authorities should play in protecting Indigenous land rights.

The contributors to this special issue advance a wide range of ideas, findings, and efforts toward better understanding of what wilderness is and how it can be stewarded to respect and reflect diverse cultures, generations, abilities, and perspectives. Yet these contributions speak to just some of the many ways we can envision meanings and practices of Wilderness for a Diverse America. We believe that this special issue, the first of its kind for the *International Journal of Wilderness*, is a step in the right direction to locate that common ground, though more conversations and study are required to ensure wilderness is relevant and accessible to a diverse America. 

Acknowledgments

This work was supported in part by the USDA Forest Service, Rocky Mountain Research Station, Aldo Leopold Wilderness Research Institute. The perspectives in this publication are those of the authors and should not be construed to represent any official USDA or US Government determination or policy.

LAUREN REDMORE is a research social scientist with the USDA Forest Service Aldo Leopold Wilderness Research Institute where she uses her training in environmental anthropology to better understand how to improve diversity, equity, and inclusion in wilderness and wildlands; email:lauren.redmore@usda.gov

ABY SÈNE-HARPER is an environmental social science researcher at Clemson University where she also serves as an assistant professor in Parks and Conservation Area Management. Her work seeks to inform policy development for social and ecologically just approaches to managing natural and cultural resources in the US and Africa; email:abyh@clemson.edu

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Tongass National Forest. **Photo credit:** US Forest Service

Removing the Wilderness Illusion: Emerging Professionals Explore Diversity, Equity, Inclusion, and Accessibility in Wilderness

by AMANDA GRACE SANTOS, KEREN HAPPUCH-CRUM, CASSIDY MOTAHARI, MARGARET GREGORY, and KATHERINE HAVEMAN



Amanda Grace Santos



Keren Happuch-Crum



Cassidy Motahari



Margaret Gregory



Katherine Haveman

From the eyes of four emerging professionals in land management come four different wilderness stories that explore key questions about diversity, equity, inclusion, and accessibility (DEIA) in wilderness; what is considered wilderness, what is not, and whose voices have been excluded from the wilderness conversation? With each new day comes new lessons we can learn – and unlearn – to develop a more inclusive, equitable, and diverse wilderness experience.

Every day, new voices are being added to the wilderness conversation as guides, land managers, scientists, outdoor educators, and users of the outdoors, increasingly reflecting the diversity of wilderness users and experiences.

Wilderness is built on an illusion of untouched nature. This illusion of untrammelled wilderness not only erases the traditional management of land by Native communities but also proposes that any corner of the Earth, no matter how far removed from people, does not experience the effects of humans. The idea that wilderness exists for solitude and exclusivity erases diverse wilderness experiences and distances us further from the global community of nature of which we are all a part. Land managers can instead utilize diverse perspectives to legitimize a vast array of wild experiences to create spaces that encourage inclusive and positive human–nature relationships.

When we begin to see ourselves as more connected to the global community of nature, we can expand on what US federally designated wilderness, as well as other protected land designations, means to us as individuals. The following essays are written about diverse wilderness experiences where the authors explore what wilderness and wild places mean to them, revealing different wilderness experiences from those that the Wilderness Act was built upon. Santos asks who has physical and intellectual access to wilderness. Crum explores how the chaotic balance of natural spaces can transform and transport users. Gregory considers whether wilderness definitions created by those who no longer represent the diverse population of users are still relevant, and Motahari imagines a more inclusive wilderness culture. Through their stories, the authors seek to remove the wilderness illusion from their practice. In doing so, they hope to ignite authentic conversation about the many journeys toward wilderness stewardship.

Relearning Wilderness

Amanda Grace Santos

I grew up in the northeast United States immersed in the working-class Portuguese immigrant culture of Hartford County, Connecticut, where the outdoors was a place for gatherings, or festas, that often took place on the back lot of the Portuguese church. I did not experience federally designated wilderness until I was in my 20s. As a child, it was the woods behind my house that were my wilderness. To me, wilderness and the land were not disconnected from myself. Later, I came to understand this as the acute definition of kinship – the act of connecting to the circular nature of the world and our place within this system, rather than living outside of nature to exert our power over it. The former is what will move DEIA initiatives forward, while the latter embodies capitalism and the extractive propensities of settler colonialism – concepts I came to fully understand through extensive unlearning as part of my DEIA journey.

While at Boston University studying archaeology, I specialized in cultural resource policy where I became aware of the issues and injustices surrounding public lands. I struggled to understand how lawmakers considered whose history was worth saving. I became painfully aware of the constant erasure of Indigenous groups in the Northeast, and I wondered, how can we, as a society, continue to pretend that the land we live on in this dense northeast corner of the United States was never lived on before?

With this foundation, I believe we need to unlearn and subsequently relearn what we understand to be wilderness and how we can steward it. I feel the proper context and history of our public lands must be taught to avoid the

continuation of stereotypes that harm Native American communities through erasure. To me, DEIA must start with critical place-based pedagogies that cultivate common humanity.

Unlearning begins with access. Access doesn't just mean physical access – although ableism is as large a hurdle as any. It means access through education as well, a challenge given the shortage of educators in the United States and a disrespect toward the profession. Any steps toward DEIA in wilderness cannot begin until we first unlearn years of systemic oppressive thought – starting with educating our youth about the history of our land and its original stewards. Critical place-based pedagogy can also help us move toward a world where "wilderness" is understood to be a result of the tending and purpose with which groups of Indigenous and other nonsettler residents cared for and continue to care for various ecosystems in North America.

As a professional archaeologist, I find myself in a unique position to feel incensed that Indigenous populations across the world continue to struggle to gain the recognition they deserve as stewards of wild places. To truly advance DEIA in wilderness, we must interrogate our perceptions of public lands as places for recreation since people from different ethnic groups connect to place in unique ways (Martin 2004). The dialogue around public lands depends on a dominant culture, one that exudes power over the landscape. To relearn, we should also find ways to support the original caretakers of our lands, including through the return of decision-making power, now being fought for by Native communities in the LANDBACK movement that seeks the return of decision-making power back to original land stewards. LANDBACK is, in my eyes, the ultimate expression of a safe, resilient, and decolonized land system in this country. DEIA in wilderness



Figure 1 - Sangre de Cristo Mountains, Colorado. Photo by Amanda Grace Santos.

means putting those who are experts in charge, and in North America, the experts of what we call public lands, and what we call wilderness, are the Indigenous communities whose land it is.

A place-based pedagogy program on public lands can engage communities at the most intimate level. Through this relearning, we can cultivate safe spaces for all types of interactions with nature, including subsistence gathering and hunting, gathering for medicine and art, medicine walks, and other nonrigorous activities that can foster inclusion across our wilderness and wild lands. To do this there must be education and understanding by land managers on the ground to ensure that communities are welcomed with compassion. It is about compassion and embracing common humanity; it is about kinship. Only by embracing kinship will we realize an equitable and inclusive wilderness.

Reframing Wilderness

Keren Happuch-Crum

How people define and experience wilderness is subjective, a personal three-dimensional landscape of emotion, ability, and knowledge. When I was young, I had a strong desire to understand and be part of nature, but as a white, suburban Chicago kid from a working-class family my concepts of wilderness were limited by my ability to access wild places. In my childhood, the “wild” places I visited were public greenbelts around Chicagoland and the mosquito-filled RV Park near Mille Lacs Lake in Minnesota where my grandparents liked to camp. The wildlife I encountered were mainly habituated urban dwellers: deer, skunks, raccoons, squirrels, and crows, along with any fish we happened to hook from the piers of Lake Michigan. Due to my limited access, my understanding of the wild came mostly from my imagination fueled by books, folktales, and movies.

One story colored my early perception of the wilderness. My middle school art and outdoor education teacher, Mr. Paws, told us about a friend of his who could walk into the woods with nothing but a knife and come out months later fully clothed in deerskin, having survived on his knowledge, skills, and the bounty of the land. The idea that the land was a provider of sustenance and shelter, if the navigator had proper knowledge and skills, resonated with me. In my young mind, the wildlands were a magical, mystical place representing the true, unbridled potential of the Great Mother Earth—whose web of life and death connects all. Yet it wasn't until I moved to the northern California coast, home of the great coastal redwood forests, where I began to build my wilderness skills and expand my knowledge.

Walking amongst the redwoods was like being

transported to a magical land. The cool, wet, soft ground and thick, dark canopy of trees created a quiet hush that settled on my soul, like walking into a holy cathedral. When the fog descended, I felt that I was close to the realm of fairies. I half expected a pixie to be sitting upon the large spotted red amanita mushrooms or the Green Man to walk by leading a herd of elk. Being in the majestic redwoods induced many feelings, spanning awe, excitement, fear, empowerment, reverence, and a sense of both solitude and connectedness. Besides being a small part of a giant world, I understood myself as having value in this place as all living beings have value when they are where they belong.

I learned to camp, figuring out the appropriate gear, clothing, and amount and types of food and drink to bring. I practiced my orientation and map skills, learning to get lost and find my way back again. I explored my physical and mental boundaries, building my strength and stamina with every sojourn. My partner became interested in herbalism, so we began learning to identify plants, where they lived, and their medicinal properties.

I learned about the Indigenous people from the area who, unlike so many Indigenous people across our country, still had access to and tenure of a small section of their traditional homelands. I was surprised to learn from a young Native American woman that her people considered the redwoods a place of death because there is very little edible food available in those dark, damp forests. One would easily starve. Her perception of the redwood forests was so different from my own, yet was equally valid based on her own culture, stories, and experiences.

I wanted to understand the natural world better, so I pursued a degree in ecology in Santa Cruz. I learned that the interconnectedness of species

and ecosystems is much more complex, full of competition, mutualism, succession—a chaotic balancing act. The more time I spent in the wild learning about natural history and ecology, the more my perception of nature and what is “wild” evolved. Nature became less of an abstract concept of perfect balance that is separate from humans and instead turned into a messy, complex, and ever-changing reality of which humans are an integral part. We shape our environment, and it shapes us; we all belong to this world, and we should all have a say in directing our future on this planet.

In reflecting upon DEIA in the wilderness, I believe that people experience different scales of “wilderness,” ranging from urban green spaces to uninhabited mountaintops. The importance lies not in the degree of wilderness that one is in, but in the action of connecting to the natural world and all the mental, emotional, and physical benefits of those experiences. Historically, people of color and disabled people have been excluded from these spaces, due to limited accessibility, or through discrimination, fear, and harassment. Making these spaces more accessible requires a combination of building inclusive outdoor communities, reasonably investing in infrastructure to make trails more accessible to those with physical limitations (e.g., wheelchairs), and providing outdoor educational opportunities for multicultural youth and adults. Improving accessibility is key to ensuring inclusivity in wilderness and the first step to encouraging people to protect our wild spaces.

Rethinking Wilderness

Margaret Gregory

When I was six, I hiked Mt. Washburn in Yellowstone National Park. My mom outfitted my brothers and me for the trek: fanny packs full of water bottles and trail mix, neon windbreakers, the sturdiest hiking shoes available at the mall. As we climbed, our surroundings shifted from concrete parking lot to montane wildflowers – drooping columbine, violet fireweed, star-faced asters – and windswept, unobstructed views of crags and valleys. A flatlander, my breath heaved in my chest as we passed 10,000 feet. As we neared the top, the ground on each side of the trail fell away; I would need to balance precariously to summit. Could I achieve such a feat without plunging off the cliffs? Could I bravely push ahead? Or should I admit defeat and return to the car, mere feet



Figure 2 - Margaret Gregory hiking somewhere in the American West, wearing her ever-present fanny pack. Photo courtesy Lori Vinton (the author's mom).



Figure 3 - The view from Mt. Washburn, Yellowstone National Park, taken from the Margaret Gregory's childhood scrapbook. Photo courtesy Lori Vinton (the author's mom).

away from success?

I managed to summit Washburn, greeted by an interpretive center and flush toilet at the top. The "precarious" trail was wide enough to drive a car on. And overall, I only covered six miles. This trek barely graduated from a "walk" to a "hike" – but I've yearned for similarly manageable outdoor challenges ever since. Over the years, I visited national forests and parks across the western US. I summited more mountains (and wimped out on a few others), camped on public lands from my Nebraska home to California, and kayaked the wild and scenic Niobrara River while soaking beneath waterfalls cascading from bluffs.

Yet none of this counted as a wilderness experience. Federal wilderness is "an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain." Aldo Leopold, one of the pioneers of the wilderness movement, defined it as "the raw material out of which man has hammered civiliza-

tion." And popular culture suggests wilderness only exists for those with expensive backpacks and ample free time.

All the trails I've explored are certainly trammeled (and many of them paved). I've never hammered anything more than a tent stake into the ground. And despite those who argue that "man" encompasses all people, I fail to see myself represented in traditional wilderness definitions – despite being white and middle-class, the demographic who's mostly shaped the current wilderness narrative.

I grew disillusioned with wilderness as I researched and wrote this piece, and I'm not the only one who feels gate-kept by the wilderness concept. In the spring of 2022, I helped moderate a DEIA in wilderness focus group for natural resource professionals. Before each person in the group spoke, they prefaced their statements with, "Well, I've never really been in wilderness..." despite spending their workdays on our forests,

grasslands, and parks.

If the participants of my focus group feel removed from wilderness, then perhaps we need to rethink the concept. Our collective sense of “wilderness” developed before I was born by people who do not think like me and who may not have shared my values. Federally designated wilderness serves a purpose; it shelters threatened and endangered species, fosters biodiversity, and proves that humans have less dominion over the Earth than we like to think. However, the wilderness concept fails to acknowledge that these “untrammled” spaces have been tended and shaped by Indigenous people for millennia prior to European colonization and few corners of the Earth remain unaffected by humans as climate change mars our landscapes.

I do not need “wilderness” to love the outdoors. As tame as my outdoor narrative might be, it encouraged me to major in biology and survey the prairies and forests surrounding my college. It inspired me to pursue a master’s in science writing, taking courses in communicating about public lands. It inspired me to leave an uninspiring job and pursue a career in natural resources. I currently work as a technical writer-editor for a land management agency, conveying to others the value and joys of the outdoors.

To love the outdoors, I simply needed access to any of its forms. Before I visited Yellowstone, I visited the wild through walks to the park near my childhood home. Before I joined a land management agency stewarding millions of acres, I stewarded the wild while tending my dad’s one-acre garden.

I want to hear everyone’s wilderness stories – from their “Mt. Washburns” to their neighborhood walks to their backpacking adventures. What, in the words of Mary Oliver, sparked their plans for their “one wild and precious life?” And Oliver wasn’t gazing upon a mountain vista when she wrote this; she was observing a grasshopper in her hand.

Reimagining Wilderness

Cassidy Motahari

Not too long ago, I listened to someone recount a recent rock-climbing trip she took to a popular natural area not far from one of America’s most visited cities. As she and two other friends completed a short multipitch climb along the side of a desert mountain, a large group of hikers appeared below, hiking along the mountain’s base and singing together in a language that was not English. Growing annoyed at the singing, one of the three climbers turned his head toward the hikers below and, at the top of his lungs, shouted, “Can you shut up!”

I was not there. I cannot tell you if the singing was truly interfering with the climbers’ ability to communicate with each other, a legitimate and serious safety concern, or if it was simply an annoyance. I cannot tell you how many hikers there were, how loud they were singing, why they were singing, or what impacts the additional noise had in the already-crowded area. I cannot tell you if the climber’s response would have been the same if the hikers were singing in English. What I can tell is, on that beautiful fall day in the desert, the hikers had broken an unwritten rule of the wilderness elitist.

If you enjoy wild spaces and all they offer, you have likely met the wilderness elitist. The wilderness elitist believes there is a right way to experience “true” wilderness, which often involves multiday backpacking expeditions or technical alpine ascents. The core tenet of the wilderness elitist is the belief,

conscious or not, that wilderness exists primarily for the privileged, experienced, and affluent. Above all, the wilderness elitist loathes nothing more than an infringement on the "pristine" wilderness experience. This perceived infringement often comes in the form of recreators who do not fit the narrow idea of what an outdoorsy person should be: namely, white, nondisabled, outfitted in the latest gear, and flawlessly proficient in outdoor skills and etiquette. And in a wilderness culture that values the illusion of solitude and "pristine" wilderness, an increase in outdoor recreation is an assault on this experience.

The COVID-19 pandemic was a reckoning for the wilderness community as outdoor recreation exploded in popularity. While National Park Service (NPS) visitation levels have not completely rebounded to pre-pandemic levels, the NPS experienced 297 million recreation visits in 2021, or a 25.3% increase compared to 2020. Forty-four parks, including Joshua Tree, Zion, and Grand Teton, received record visits in 2021. It wasn't just national parks that experienced an influx of recreationists. A study examining data from Recreation.gov found that the average number of nights reserved at Forest Service campgrounds increased by 28% in 2020 compared to 2019 (Shartaj et al. 2022).


But was this increase in visitation experienced equally across racial, ethnic, and socioeconomic groups? There is a lack of national studies on changes to the demographics of outdoor recreationists since the emergence of COVID-19. A 2018 study that compared Forest Service National Visitor Use Monitoring to US Census data found that, while people who identified as non-Hispanic white made up 62.6% of the national population in 2010, they accounted for more than 90% of national forest visits between the years 2010 and 2014 (Flores et al., 2018). This means that people like me, a Middle Eastern/white first-generation American, though

privileged to come from a highly educated family and pursuing a graduate degree, are few and far between on the trails. Organizations such as Melanin Base Camp, Gear Fund Collective, Unlikely Hikers, and countless others are actively working to make the outdoors more accessible, yet people of color, disabled people, and other historically marginalized groups remain underserved and underrepresented in the wilderness community.

So what could a more diverse, equitable, inclusive, and accessible wilderness culture look like? I imagine a culture in which wilderness is viewed as a space for adventure, healing, and pursuing passions, regardless of background or ability. A wilderness culture that rejects the notion of an "untrammelled" wilderness and instead holds deep acknowledgment of the Indigenous communities who made their home in these places, including the painful history of their oppression and their removal from ancestral lands.

I imagine a culture of accessible information on wilderness safety and etiquette, where everyone feels empowered to protect the well-being of themselves and the wild spaces they visit; a culture where abundant opportunities exist for members of historically marginalized communities to pursue careers in all aspects of the wilderness economy, as guides, state and federal land managers, scientists, and outdoor educators; a culture that values all wilderness experiences, from the shortest of day hikes to multiday treks; a culture that encourages more people to fall in love with, and seek to protect, the endlessly beautiful wild places that remain. I could sing with the possibility of it all.

Conclusion

These short essays reveal that gateways to wild experiences are all around us. When we reduce barriers to wilderness, we can create transformative nontraditional wilderness experiences. As these authors have illustrated, the degree of remoteness or solitude of wilderness is less important than the existence of physically and emotionally accessible wilderness and wild spaces. The voices here represent only a small part of a greater community of users. Every day, new voices are being added to the wilderness conversation as guides, land managers, scientists, outdoor educators, and users of the outdoors, increasingly reflecting the diversity of wilderness users and experiences. But we must strive to bring even more voices to the conversation to ensure a sustainable future for ostensibly untrammelled spaces. Exclusivity is antiquated. Erasing the past is antiquated. People revere wilderness because it confirms we are connected; we are all of wild places. 

AMANDA GRACE SANTOS is an archaeologist for Santa Fe National Forest. Originally hailing from Connecticut, she enjoys reading, running, and traveling; email: argsantos@att.net

KEREN HAPPUCH_CRUM creates equity and environmental justice maps for the US Forest Service. She lives in Oregon where she shares her love of exploring the outdoors with her family.

CASSIDY MOTAHARI is an MA student at the University of Montana School of Journalism, where she is pursuing her dream of becoming a science and environmental storyteller.

MARGARET GREGORY works as a technical writer-editor for the USDA Forest Service Research and Development branch and runs, reads, and writes in the Nebraska National Forest; email: Margaret.gregory@usda.gov.

KATHERINE HAVEMAN has her master of science from the University of North Texas and the Centro Agronomico Tropical de Investigacion y Ensenanza (CATIE). Originally from Washington state, she now works for the US Forest Service in New Mexico as a specialist in stewardship projects and volunteerism; email: Katherine.haveman@usda.gov

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Fall on the Wolf River on the Menominee Reservation.. **Photo credit:** Brian Grignon

Medicine Fish Is Leading the Way to Heal, Build, and Inspire Menominee Youth through the Wild and Scenic Wolf River: An interview with Bryant Waupoose Jr., Founder of Medicine Fish

by **BRYANT WAUPOOSE JR.**
and **LAUREN REDMORE**

From a bird's eye view, the Menominee Reservation is a forested oasis in sharp relief from neighboring landscapes of dairy farms spanning northeastern Wisconsin. The Menominee people have cared for the land and waters for over 10,000 years, and the land and waters have given life back to the people (Menominee Indian Tribe of Wisconsin 2004). Garden beds where early Menominee people planted traditional first foods and elder plants – plants that sustained the Menominee culturally, spiritually, and physically – as the last glaciers retreated are still visible across their lands today and represent a modern marvel of integrated farming (Morales 2017). Today, the Tribe operates a successful timber company, and their management practices are widely recognized for increasing the quality of their forest (Buckley 2023). But the land represents much more than economic and environmental opportunity – it is the embodiment of self-determination for the Tribe and one that Tribal members do not take for granted.



Bryant Waupoose Jr.



Lauren Redmore



Figure 1 - The Balsam Row Dam, one of two downstream dams from the Menominee Reservation that inhibits nama'o (lake sturgeon) from reaching their original spawning grounds at Keshena Falls on the Wolf River. Photo credit: Lauren Redmore.

The Menominee originally inhabited around 10 million acres of land across the Midwest (Menominee Indian Tribe of Wisconsin (MITW) 2004). The Menominee had contact with early European settlers dating back to the 1600s but began to be significantly impacted by them starting in the early 1800s when the US government began to take seriously the project of westward expansion. In the 1820s, New York State Tribes, in particular the Oneida, Stockbridge, and Munsee Indians, were pushed from their territory, and sought to settle on Menominee land (MITW 2004). Chief Oshkosh, the leader of the Menominee at the time, agreed, recognizing their plight, and carved out a portion of his people's remaining land in goodwill (MITW). Over the following decades through 1848, the Menominee signed seven treaties with the US government when Wisconsin was organizing for statehood, ceding significant portions of their land to settlers (MITW 2004). The US Government sought to extinguish all Native American land claims in the new state of Wisconsin and told Chief Oshkosh and his cabinet that they would be given pristine land in Minnesota (MITW 2004). However, upon arriving on a scouting visit to this new land in 1850, Chief Oshkosh found that the land both offered little in terms of favorable hunting opportu-

nities and was contested by Ojibwe and Sioux Tribes. In response, he traveled to Washington, D.C., to request that the Tribe remain in Wisconsin. In 1854, the US government and Menominee Tribe signed the Wolf River Treaty, solidifying their claims to 250,000 acres of their homelands which is now the present-day reservation (MITW 2004).

This initial contact began a long and complicated relationship between the Menominee Tribe and the US government. "Since their first treaty with the United States in 1827, the Menominee and their more-than-human kin experienced catastrophic changes that threatened many of their ancestral practices" (Hitch and Grignon 2023, p. 253). This includes a wide range of sociocultural impacts, specifically the loss of their ability to move across the landscape seasonally, as well as the subsequent creation of the Menominee Indian boarding school at Keshena Falls to replace Menominee agriculture, religion, and language with Western counterparts (MITW 2004). The loss of lifeways, language, and religion intersected to cleave Menominee relationships with the land and all of creation that had sustained them for millennia (Kline, Bruch, and Binkowski 2009).

Yet even the Tribe's ability to manage their own land was up for grabs as the USDA Forest Service clear-cut significant portions of the reservation starting in the 1920s, leading to a successful lawsuit in the 1950s for environmental damages (Menominee Tribe of Indians 1950). In the 1960s, as the US waged assimilation policies, the Tribe's federal recognition was terminated, and they lost their right to self-governance, important federal funding sources, and other significant tribal treaty

rights (MITW 2004). In 1973, the Tribe regained federal recognition through a congressional act and reestablished the reservation in 1975 (MITW 2004). But in the years leading up to this, the signing of the Wild and Scenic River Act established a 24-mile segment of the Wolf River entirely within the current-day boundaries of the reservation as one of the original Wild and Scenic Rivers. Suddenly, when the Tribe regained recognition, they found themselves managers of one of the nation's most protected rivers that, until the installation of downstream dams in the early 1900s, had been critical spawning grounds for nama'o, the long-lived lake sturgeon that sustained human and more-than-human life at Keshena Falls (Kline, Bruch, and Binkowski 2009).

The impacts of this tumultuous experience are far ranging: Menominee members have lower life expectancy, higher rates of alcohol and drug abuse, lower median household incomes, and higher rates of poverty, among other social determinants, than neighboring white communities (MITW 2004). Yet through all of these challenges, the Menominee people remain resilient, striving for self-determination. Today, one group is working to reinvigorate the Menominee connection to place. Medicine Fish is a newly established nonprofit organization working to connect Menominee Tribal youth with Menominee culture and place, including nama'o and the Wild and Scenic Wolf River. Bryant Waupoose Jr. and his colleagues bring a holistic approach to healing the intergenerational trauma of kinship destruction, land dispossession, and cultural erasure through fly fishing. While many think of fly fishing as recreation, Bryant and his

team understand it is an act of creation—the connection of people and place, across time and through generations. Bryant and I spoke just after Father's Day when he took some youth in the Medicine Fish program to learn how to fish at night along the Wolf River. In this interview for the *International Journal of Wilderness*, he shares a little bit about where he came from and how he and his team came to develop the Medicine Fish approach to heal, build, and inspire youth on the Menominee Reservation.

Bryant, tell me about yourself and how Medicine Fish came to be.

Growing up inside of an Indigenous community impacted by colonization is full of many challenges, like poverty, substance abuse, alcoholism, physical and sexual abuse. European contact resulted in the loss of cultural practices and access to our first foods and medicines, which increased the rate of diseases across our communities. I grew up on the Menominee Reservation in poverty and was raised by my grandparents until my teenage years when they both were diagnosed with diabetes and their health deteriorated. As I transitioned into later teenage years and early adulthood, I started selling illegal drugs, doing drugs, and drinking alcohol—decisions that didn't help me in my life. I was able to stay alive and not be incarcerated. I had my first born son and shortly after met my wife, Deeann, and together we realized we needed to break this generational cycle. At 23 years old we were married, we started our family, and we chose to walk in this different direction. We traveled to different Indigenous communities and had many lessons of humility in reestablishing ourselves and rebuilding our life around us. But we kept that core and sense of prayer unity and resilience to break the generational cycle of trauma. We moved around these different communities, into the plains—North Dakota, South Dakota area—and were inspired by the positive Indigenous activism we saw. Then I found this calling to bring that home.

When we came home at the end of 2019, we knew we wanted to help our community, but we weren't sure how. COVID hit and neither one of us had jobs, and we brought a new baby into this world. We went through another lesson of humility trying to build again around ourselves and our family. This time we chose to do it by giving our time and effort to the young people of our community. So I took this passion of mine—which I found also is one of my keys to my own success in my wellness and connection to creation—fly fishing. Through prayer and my spiritual foundation—being out on the water and the desire to know something about the rhythm and the birds and the sound of solitude and being alone—it had tremendous effect on my emotional and spiritual well-being. I got back into our forest and tried to do my time out there, learning what I could by navigating the river systems inside of the reservation boundaries and trying to understand more places. I became very close friends with a brother of mine, Brian Grignon, and we talked about these skills that we developed outside, being underwater catching fish, how much it helps us and how much it could help the young people of our community. In 2021, we took a few kids camping, and today it is safe to say that we changed their lives forever through what we have done.

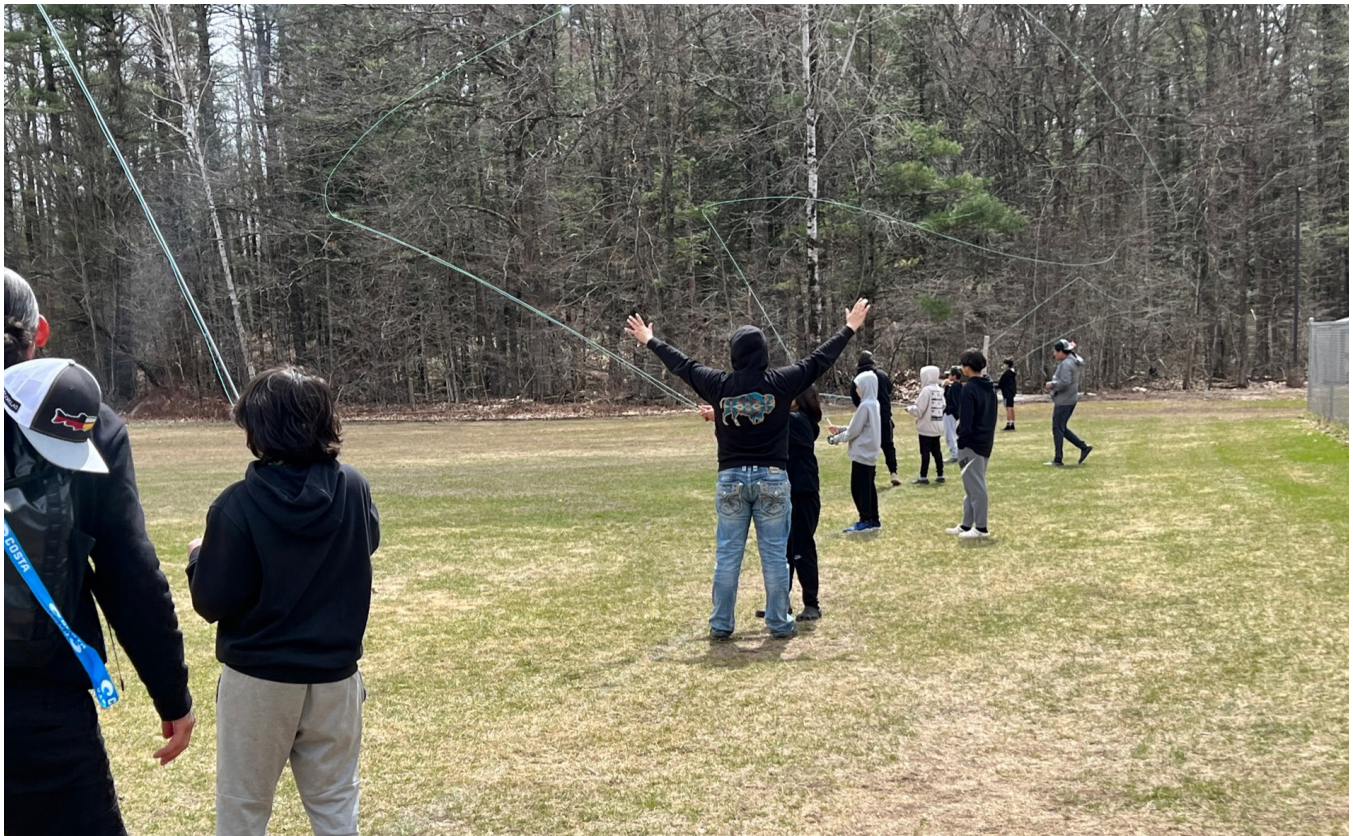


Figure 2 - Medicine Fish third year youth mentors teach new additions fly casting. Photo by Donovan Waupoose.

How does the idea of home enter into your work?

The sense of home for me is many things. That relationship I was able to build over time with the land and the water really called my spirit—from where I played in the sand to where I would swim to the smell of the scent of the air, the trees, the sounds of the birds in our area. There's so many things that I didn't notice until I left home. When my wife and I moved our four children, I realized that this song, this place, it was helping me in so many different ways, and it was actually calling my spirit back. For us to be at home today, we get to walk along on some of these trails and trees that go back so far in time with our relatives and our people. We have trees that are 200, 300 years old. To think about the things that they've seen and how long they've actually been here, and to think of my lineage! Of my grandparents and grandmothers, and how long they've been here and how far back our paths go. I have a deep relationship and I'm still learning about how connected we actually are to this area, to this forest, to these waters—that is what's really special about existing on ancestral land. Our team carries this connection to place and kin throughout our work with our community.



Figure 3 - Annual medicine journey youth are in pursuit of cutthroat in the Yellowstone Canyon in partnership with Big Sky Anglers. Photo by Bryant Waupoose Jr.

Fly fishing is not a traditional practice for the Menominee people, but this activity is central to the inspiration behind Medicine Fish. How does Medicine Fish seek to foster in Tribal youth the relationship between the Wolf River and Menominee cultural identity through fly fishing?

Menominee translates to People of Wild Rice, a name given to us by the Ojibwe because wherever we would move, the rice would follow. We spent a majority of our time on this water, and we gained all of our sustenance from the abundance of wild rice and sturgeon, which no longer freely exist. The early writers that came to articulate us as a people said that the Menominee people wouldn't survive without fish—that it was something we needed all the time. We speared and had many ways of harvesting fish. That deep relationship is something that has been forgotten and developed into more of a sport fishing practice. It is now time for us to write our own stories, and that requires reigniting our relationship with our human and more-than-human kin. My brother and I understood what fishing and this desire to be outside did to heal us. So medicine is really what it is. It helps you heal, and our Medicine Fish logo tells the story of the medicine wheel and fish together. Following Red Road teachings of Gene Thin Elk, we use concepts of healing – mental, physical, spiritual, emotional – connected through the seven directions in relationship to all living things and all of creation. This model helps us gain the understanding of our values as Indigenous people and starts to bridge the gap between our

creation, our language, our current thought processes, and how we view our relationship with the land today.

“Through our model of ‘heal-build-inspire’ we ground our understanding of our relationship to creation through water. It helps us connect to not only the Wolf River, but all the river systems that we're connected to.”

Through the Medicine Fish model, we strive to prevent the disconnect of people from water and land by revitalizing their cultural importance. Through water we are helping young people establish their identity and a positive path forward. And when you think about fish, they exist in water – the one thing that connects everything. And water has memory and fish are like caretakers of that water. Through establishing that relationship between humans and fish and remembering that this isn't just a sport thing – that there is so much more in your relationship to fish because you have to understand the water and all the living organisms that are inside of it. Especially through fly fishing! You're not throwing a plastic or a rubber artificial lure that is made out of bright colors with vibration to trigger their predatory instinct. You're trying to mimic something that is actually a part of creation. Using your artistic capabilities to do that and then learning what is in that water, it helps you realize that there's so much connected to water. Water is important to bison, to sturgeon, and our people as well since the beginning of our existence. Even today as human beings, we begin our existence in water inside of our mother's womb, and to look at all of the different ways that water is connected to life, how our people would travel by it, you realize how important it actually is. Through our model of “heal-build-inspire” we ground our understanding of our relationship to creation through water. It helps us connect to not only the Wolf River, but all the river systems that we're connected to. We are also reintroducing bison to our people, which experienced the same loss of land that we did, to help improve health disparities and reconnect our people with other traditional lifeways.



Figure 4 - Medicine Fish-Menominee Buffalo Initiative reconnects to an ancestral relative for the first time in over 250 years. Photo by Bryant Waupoose Jr.



Figure 5 - Medicine Fish begins the annual maple syrup harvest. Photo by Brian Grignon.


Through Medicine Fish, you take kids on these incredible journeys of a lifetime and show them that they have a lot of the lessons already within them, and you help them build community and build a connection to place. I'm curious what lessons you've learned from the kids in your program.

One of the greatest lessons is understanding my own role as a father and my role as a community relative dealing with complex human beings who are all unique. I really have to look and find different ways to center us all, to be able to understand purpose, and that to have anything in this life you have to give it first. So many people approach these problems like they have all the answers because they are educated in psychology, sociology, human development and treatment, methods, and approaches. But there's not a single approach that fits all of our life's challenges. That's one of my greatest learnings is knowing that you have to be willing to adjust at all times. The other great thing that I found in working with the kids in our program is to trust your intuition and that spiritual love that lives inside of you. They can really help you make decisions that sometimes blow you away because you followed something that was right and connected to some of the right people or made a decision that put the kid in a place where they were able to acquire a tremendous amount of healing or self-value. When you have those moments, that all comes from trusting what exists inside of us. That's one of the most profound and empowering experiences to have. The individual that connects to themselves in their purpose has the ability to have a tremendous impact on everyone around them –if they're open to it.

What messages do you hope to share with the Wilderness and the Wild and Scenic River communities?

On this land, written all over it, are signs that we are of the Earth. In today's world, it is important that open-minded and willing people take the time to understand the Indigenous view and our relationship with the Earth to help us all heal our mother. It's not just us as Indigenous and Tribal people, but actually all people should share this understanding and connection. It's great to see that there's people willing to learn and understand how our team at Medicine Fish works with others in this effort to protect and preserve nature. None of this work would exist if it wasn't for relationship—relationships with each other, the natural world, and our ancestors. We need to make sure that we understand the why of what we're doing and what we're leaving behind, that we understand the relationships of the original inhabitants of landscapes here in this country, and the ancestors that have gone on before. This is all connected—we are all connected. Mother Earth is a source of life and we need to remember this so that we can heal ourselves and our world together. They say that we don't own this time and space—we borrowed it from our future generations, our young people that are coming behind us. We have to leave this place in the best way so our children can have water and clean air to breathe. We need to heal our historical traumas together so we can demonstrate what it would look like to work together.

About Medicine Fish

Medicine Fish is a 501(c) 3 nonprofit organization based on the Menominee Reservation, Wisconsin. Our motto is Heal-Build-Inspire, and our vision is a world where youth and other community members are empowered to reconnect with equitable and traditional lifeways and knowledge systems, that include the restoration of land and waters through bison and sturgeon. We use a model that emphasizes our Menominee relationship with bison, land, water, and plants as persons and important beings of creation. We focus on Menominee and other Indigenous knowledge for decision-making about environmental and social well-being to secure a safe and healthy world for future generations. You can learn more at <http://medicinefish.org>. 

Acknowledgments

A special thank you from Bryant to Gene Thin Elk for helping me find my purpose and the late Robert Perez, my fly fishing elder, mentor, and friend. This work was supported in part by the USDA Forest Service, Rocky Mountain Research Station, Aldo Leopold Wilderness Research Institute. The perspectives in this publication are those of the authors and should not be construed to represent any official USDA or US Government determination or policy.

BRYANT WAUPOOSE JR. is the founder of Medicine Fish, an innovative and proven approach that uses fly fishing and Indigenous concepts to connect youth to creation and promote wellness through the model Heal, Build, and Inspire. Bryant has enhanced the quality of life for Indigenous youth through the revitalization of their cultural connection to self and Mother Earth, and he works to bridge mental health with Indigenous knowledge to create cultural coherence between worlds; email: bryant@medicinefish.org

LAUREN REDMORE is a research social scientist with the USDA Forest Service Aldo Leopold Wilderness Research Institute where she uses her training in environmental anthropology to better understand how to improve diversity, equity, and inclusion in wilderness and wildlands.

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Arches National Park, Moab, UT. **Photo credit:** Quinn Brett.

Wheelchairs in Wilderness: One User's Perspective on Ways to Improve Wilderness Accessibility for All

by **QUINN BRETT** and **ERIN DRAKE**

Lately, I've had a strong desire to return to my favorite wilderness area and attempt the area's rim-to-river trail. This route begins just a few miles down the road from the area's visitor center and traverses 7 miles to the mouth of the river. I ran it for the first time in 2016 and enjoyed the entire journey. For me, this was a quintessential wilderness experience – I experienced physical challenge, solitude, and almost overwhelming natural beauty.

As I recall, planning for this endeavor had the usual considerations. Could I get water from the stream that intersects the trail? What would the weather be like? How would my knees feel with the downhill pounding and uphill march?

Going back, these days looks quite a bit different. In 2017, I suffered a spinal cord injury and am now paralyzed from the waist down. Today, I'm drawn to wilderness for the same reasons as I was before. I still want to spend time in the outdoors, push my lungs and heart physically, challenge my mind, and experience awesome adventures. And this time, instead of running, I will be using my wheelchair.



Quinn Brett



Erin Drake



Figure 1 - Quinn Brett uses her wheelchair on a wilderness trail. Credit: Quinn Brett.

I crave big adventures, and part of the fun is the preplanning. However, the logistic preparations for any sort of trail experience as a person with a disability is often incredibly challenging. It requires even more effort. I know my own capabilities and those of my different wheelchairs. Each wheelchair has its own strengths and drawbacks on specific terrain features. The biggest crux is knowing what exactly those terrain features are. How wide is the trail on average? Are there significant pinch points? What about steep cross slopes or large steps? I have learned through past trail experiences and trail knowledge that the developed and managed use of a trail, as well as trail class, help to inform my decision. For example, if the trail is used by stock ani-

Sidebar 1:
Disabilities take many forms, from physical disabilities to blind or low vision to cognitive and other less visibly obvious disabilities.

mals, it generally has design parameters that also work well for mobility devices. The trail is often wide enough, and the lack of steps and water bars work well for both stock users and me.

I am lucky to have had eyes on this trail previously, helping to increase my confidence. Although I have had confident moments that were shattered because my eyes and memory before my injury were not clued into my needs now that are impacted by common trail barriers and other features.

Sidebar 2:

Did you know wheelchairs, a type of mobility device, are allowed in federally designated wilderness? A wheelchair is defined as: “A device designed solely for use by a mobility-impaired person for locomotion, that is suitable for use in an indoor pedestrian area” (Section 12207(c)(2) of the Americans with Disabilities Act). Wheelchairs can take different shapes and address different needs while still meeting the definition of a wheelchair.

Research for any kind of trail can be extensive. I start with the internet. First, I pull up an online map of the wilderness area. Online scouting gives an idea of where trails are located and a basic rating system of subjective difficulty. Then begins the in-depth research of scouring photos, looking for images of the parking lot(s), bathroom(s), and trail itself; photos that show the tread, the rocks, roots, gravel, width, bridges, steps. I am not looking at photos of the view or scenery; I will enjoy those aspects of the area if I get on the trail.

I'm scanning photos for indicators of accessibility. Is there an accessible parking spot marked? Accessible parking spots ensure that I have enough room to access the side of my van and load or unload my wheelchair. What is the parking lot surface type? Thick gravel versus packed gravel versus pavement make a difference, especially when maneuvering around in my wheelchair and unloading my other mobility devices.

A big disappointment is when a trail looks possible online, but then I can't actually get to the trail because there is some sort of gate. I have encountered roll-overs that are too narrow for my mobility device. There are a variety of older metal cattle or horse gates that you must step through or reach and hitch/unhitch a closing mechanism. Often these steps are too abrupt and awkward for my wheels to roll over, or it is too high for me to even attempt. And gates located on a slope of any kind make two-handed operations even more difficult. While I have good hand function, my friends with different disabilities have a hard time with just the latching function or chaining

of these gates because they have reduced grasp and dexterity.

I know we all must do varying degrees of planning for a trail experience given the vast spectrum of desired experiences, physical fitness, crowd levels, and permits required. It just seems now, as a person with a disability, the pre-trip and during-trip barriers that prevent an experience from occurring are more common and often unidentified because there is a lack of understanding of what specific information is needed.

All these thoughts and I haven't even arrived yet on the trail! Based on my research, the rim-to-river trail in this wilderness area is open to hikers and stock use and looks feasible if I use my battery power-assisted wheelchair with a hand crank (I'm in a kneeling position while using this particular wheelchair). Given the distance, the location, and it being my first time there, it feels smart to bring a friend.

When we arrive, the parking lot is crowded, so we end up using a pull-out on the side of the road. It was tight but navigable in my wheelchair. Getting on the trail is no problem with no gates to negotiate. I roll over the same roots and boulders my friend steps over. A little over a mile on the trail we encounter a foot bridge. This bridge is only about a foot wide, too narrow for my wheelchair. Luckily, because this trail allows for stock there is a wider swath of earth cleared next to the foot bridge that directs stock traffic through the stream. I do need to be mindful of time of year (e.g., water runoff levels, riverbed consistency); luckily, this day the water is low and the stream bed's surface consistency is not much different from the trail tread. A half mile or so

Sidebar 3:

Accessibility best practice: Include photos (accompanied by text descriptions) of important pre-trip and during-trip factors on your website like the trailhead/entrance, parking area, and so forth. See below for accompanying trail attributes, that when paired with images provide more holistic information for any user to consider in their trip planning process.

later, we come across a loose sandy section of trail, where I start losing traction, sort of "swimming" in the sand. When this happens, I ask my friend to give a gentle push down on my back tire, providing extra weight to gain traction and move myself forward.

Short-lived and minor trail setbacks like this are regular occurrences for me. And they can add up to be very timing consuming over the course of an entire trail. We continue, making similar time per mile as I would when I was hiking with my two feet. Our intention was to get to a junction where the trees opened up providing stellar views of the surrounding scenery. Just before the junction, fears that were instilled when I looked at photos online come to life. The trail now cuts into a steep

mountainside. The slope and subsequent erosion mean the overall trail width is now narrower. If I encounter any roots or boulders or more eroded trail sections, especially if those obstacles are on the uphill side, I can be incredibly unstable. It is physically and mentally fatiguing to manage terrain like this. And if the slope is too steep, it's impassable for my wheelchair. But for now, I find a spot where I feel comfortable resting on my own and ask my friend to hike ahead around the bend.

They scout to gauge how much longer this narrow and more side-sloped terrain lasts and

find a spot where if I need to, I can safely turn around. Upon their return, my friend tells me that just past the bend it levels out again, so we carry on. Farther up the trail, we encounter our next obstacle: a series of steps (see Figure 2a-b). Steps might be doable for some wheelchairs, but this depends on several factors. How high are the steps? What is the distance between steps? What type of wheelchair am I using? Am I by myself? How many friends do I have along to help? These steps look passable, so I start moving up them with the help of my friend.

Sidebar 4:

Accessibility best practice: Measure and describe key trail attributes online and in visitor centers/kiosks. Trail attributes include:

- **Length**
- **Surface**
- **Width**
- **Running slope**
- **Cross slope**

Don't have this information immediately available? Data collection techniques include:

- **Manual collection with basic equipment**
- **High-Efficiency Trail Assessment Process (HETAP) machine**
- **Existing research technology, such as GIS, Lidar, Drones, etc.**

Feeling overwhelmed? Communicating these attributes, alongside accompanying photos, is ideal for all trails (and the entirety of every trail). If this isn't immediately possible, pick a couple of the most popular trails, and most popular sections of these routes, to describe for now. Every little bit helps!



Figure 2a-b - Trail on the left features stairs that may be impassable for some wheelchair users. Trail on the right features pavers that are more easily traversed with a wheelchair. Credit for both photos: National Park Service.



Figure 3 - The High-Efficiency Trail Assessment Process (HETAP) machine measures trail attributes that can affect a user's ability to navigate the trail. Credit: National Park Service.

We continue to an opening in the trees, not quite yet at our intended destination. As we dig into our packs for a snack, I glance at the time. Due to the terrain being more involved in the last half, our pace has slowed. Even though the trail continues for three more miles to the banks of the river, we opt to turn around here. If I want to see the river, I'll need to plan for a longer day out

Making thoughtful, proactive information-sharing about trails and conditions more readily available is a good starting point. This information equips potential recreationists, including people with disabilities, with a foundation from which we all can assess our interest and compatibility.

on the trail next time. While I know it's the journey, not the destination, I would have appreciated more descriptive trail information and images that can help better prepare users for the trail challenges I encountered today.



Figure 4 - Quinn Brett continues on the trail toward more adventures! Credit: Quinn Brett.

Upon return from this and many other wilderness adventures, I am grateful for the physical ability and desire to still explore our natural world. I am also grateful to have access to a variety of wheelchair types that support me in experiencing wilderness. For me – and many of us – physical movement is helpful for movement of thoughts and alleviation of pain, anxiety, and so forth. Many people with disabilities have secondary health issues. The mental and physical health benefits provided by wilderness and other public lands improve those secondary complications. For instance, I deal with a great amount of daily nerve pain. When I am outside, moving and focused on my surroundings, my nerve pain is less present. People with disabilities can also encounter social stigmas and lowered expectations perpetuated by people without disabilities, where recreation opportunities are often glazed over as “not doable” so therefore “not desirable.” On the contrary, we all want to explore and bond with each other and the environment through our experiences in them.


Remember, the Wilderness Act includes a recreational public purpose. As a wilderness stewardship community, how can we support inclusive recreation for all people to experience wilderness? Making thoughtful, proactive information-sharing about trails and conditions more readily available is a good starting point. This information equips potential recreationists, including people with the disabilities, with a foundation from which we all can assess our interest and compatibility. Information-sharing also creates space for discussion about other equity-based, trip-preventing issues such as general awareness, economic costs, and

Sidebar 5:

Section 4(b) of the Wilderness Act states: “Except as otherwise provided in this Act, wilderness areas shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use.”

Sidebar 6:

To help support inclusive wilderness experiences, have discussions with coworkers, reach out to partners, and think creatively. Be sure to approach with curiosity and learn from wheelchair users rather than making assumptions. Together we can help make wilderness more accessible for our multicultural audience.

transportation (among other issues) that may limit who is able to physically experience wilderness. I have had some of my best outdoor experiences in the wilderness, and I am hopeful that more people, of all kinds, are able to experience their own meaningful connection with wilderness for years to come. 

QUINN BRETT is a world-record-holding athlete and public lands employee whose physical ability took a dramatic shift in 2017 after suffering a spinal cord injury, paralyzed from the waist down. She is an adaptive Recreation Consultant and owner of Dovetail Trail Consulting; email: dovetailtrails@gmail.com

ERIN DRAKE is the communication and outreach specialist for the National Park Service Wilderness Program. She leads internal and external communications for wilderness, collaborating with parks, regions, national programs, and partners; email: erin_drake@nps.gov





Emerging and early career professionals exposed to wilderness management experiences. **Photo credit:** Ryan Leonard.

Introducing Emerging and Early Career Land Management Professionals to the National Wilderness Preservation System: Creating Opportunities across US Federal Recruitment Programs

by **KIMM FOX-MIDDLETON**

A Retiring Workforce Opens Doors

The full title of the Wilderness Act, "To establish a National Wilderness Preservation System for the permanent good of the whole people, and for other purposes," explains our responsibilities as wilderness managers to ensure that wilderness "shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness" (Wilderness Act, Section 2a). Since 1964, the National Wilderness Preservation System has protected wild lands managed by the US Department of Interior and the US Department of Agriculture across the country, and currently is comprised of more than 111 million acres, spanning all 50 states and Puerto Rico. It can be challenging to manage wilderness given the diversity of sizes and locations, management agencies, and on-the-ground issues faced by managers. These challenges are compounded by environmental and social changes that are redefining how we manage wilderness, what we manage in wilderness, and why



Kimm Fox-Middleton

It is more important than ever to ensure continued wilderness stewardship, and a stewardship that reflects the changing demographics of our nation.

we manage wilderness; these changes also are impacting who manages wilderness.

Almost one-third of the federal workforce will soon be eligible for retirement, with many retirements happening in the coming months (Weisner 2022). This includes many wilderness managers who have decades of experience and are now, more urgently than ever, called upon to serve as coaches, mentors, and sponsors for emerging and early career professionals to ensure relevancy and sustainability of our nation's wildernesses. Not only does the present workforce have a lot of knowledge, skills, and experience to share with emerging and early career workers, but emerging and early career workers have a lot to share with more experienced workers.

As a parent of two Generation Z daughters, I understand that the opportunities they have today shape their career choices and paths into the future. I value firsthand the opportunity to learn how my daughters apply their perspectives into the workforce, and I carry this into my wilderness work. Generation Z has grown up in the "digital age" and has ready access to an exorbitant amount of information. As a result, they may be considered the best-educated generation yet (Parker and Igielnik 2020). My daughters' approach to work, like many in their generation, reflects this early exposure to knowledge. They are problem solvers, interested in collaborating across disciplines and contexts. They are also committed to causes that support a more equitable and sustainable future. These and other qualities influence how they and others in their generation enter the workforce and, in turn, the kinds of mentorship and opportunities they seek out.

Early work opportunities can shape long-term career trajectories, leading to higher recruitment and a more engaged and skilled workforce. Where funding opportunities are limited, for example in federally designated wilderness, we may struggle to recruit capable, qualified, and passionate individuals to steward our nation's public lands. Without significant funding to attract talent, creative approaches are required to achieve the same goal. This article describes an effort to create opportunities for emerging and early career land management professionals to learn about, work in, and support wilderness management.

In my role as wilderness interpretation and outreach specialist at the Arthur Carhart National Wilderness Training Center (ACNWTC), I understand firsthand some of the challenges facing recruitment of the wilderness workforce. Other sectors of public land administration have successful recruitment efforts through various internships and professional pathways programs. Yet, I learned that very few of them were gaining exposure to the National Wilderness Preservation System. I wanted to ensure that my work was speaking not just to well-seasoned wilderness managers but also connected with newer generations of wilderness managers who may bring new ideas, perspectives, and experiences to their work.

I reached out to connect with these emerging and early career land management professionals to tap into their knowledge, experience, and enthusiasm, and have since worked many times with them. This led to my interest in forming an Interagency Wilderness Network for Emerging-Early Career Professionals (hereafter referred to as "the Network"). The purpose was to develop

a network for land management emerging and early career professionals and to connect them with the work of ACNWTC and the Aldo Leopold Wilderness Research Institute (ALWRI). Today, the Network is a partnership that seeks to extend wilderness into the home unit, contribute to wilderness management, and share opportunities to learn more about diverse wilderness work (Figure 1). Specifically, the Network aims to:

- *Increase the exposure of the National Wilderness Preservation System across land management agencies*
- *Build capacity for wilderness research, education, outreach, and stewardship for participants through training opportunities*
- *Raise awareness about ACNWTC and ALWRI and their missions to new and future permanent hires*
- *Incorporate perspectives of emerging and early career professionals in the development of wilderness education, research, stewardship, and training*
- *Reach beyond the traditional pool of agency staff to expand the impact of ACNWTC and ALWRI and ensure their continued relevance in an era of expanded partnership responsibilities and increasingly diverse workforce*

Establishing the Interagency Wilderness Network for Emerging-Early Career Professionals

Starting in 2021, I worked with colleagues across agencies to identify needs in wilderness interpretation and outreach where emerging and early career professionals could add value. I first learned about the Forest Service Resource Assistant Program, many of whom were eager to gain more experience beyond their home unit and assigned work. As a result, early recruits to the Network were Forest Service Resource Assistants brought to the agency through partnership organizations such as the Hispanic Access Foundation. Recognizing this opportunity to improve the quality and reach of my work, I sought to identify similar opportunities to work with other agencies and their cohorts of emerging and early career professionals (Figure 2). I learned that many of these emerging and early career professionals were being exposed to management of federal lands but not necessarily to the management of the National Wilderness Preservation System. The goal for me was not only to learn from them and leverage their valued perspectives, knowledge, and skills but to provide them with opportunities to connect their work to wilderness management, training, and research.

Emerging and early career professionals are primarily supported by staff at the ACNWTC and ALWRI as opportunities arise. In the process of working with ACNWTC and ALWRI, they have opportunities to connect with and learn about the National Wilderness Preservation System, the multiple agencies that manage wilderness, and the organizations that advocate, volunteer for, and support wilderness stewardship more generally.

The Learning and Development Framework That Guides the Network

The Network provides emerging and early career professionals opportunities to be wilderness stewards through a learning and development framework with identified stages: exposure, awareness, exploration, and preparation. My experience working with workforce development programs and college and career-ready programs in public school systems provided a framework from which to build from. I have taken my experiences in various college and career-ready programs and combined, expanded, and redefined them within the context of emerging and early career professionals and wilderness. Regardless of whether these emerging and early career professionals stay working in wilderness, the Network offers them the opportunity to learn more about wilderness stewardship and gain professional development experience. They can carry knowledge of wilderness forward in their careers, while the wider wilderness community benefits from learning more about initiatives and experiences from different contexts and perspectives.

The learning and development framework provides emerging-early career professionals a continuum for applied learning, and they may go through one or more stages at any given time. Stages are outlined in Figure 4.

Working with collaborators from ALWRI, I used the learning and development framework to provide an opportunity to Network participants at the 2022 National Wilderness Skills Institute



Figure 1 - The Network's primary objectives include extending wilderness from ACNW/TC and ALWRI into home unit of participant, providing opportunities for participants to learn about wilderness and all aspects of wilderness work, and enabling participants to directly contribute to wilderness management.

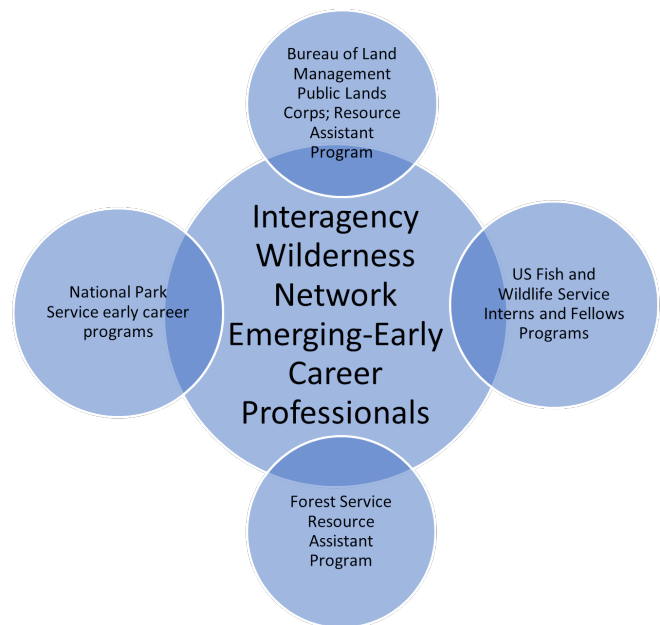


Figure 2 - The agencies and a few of their programs that currently have or have the potential to contribute to the Interagency Wilderness Network for Emerging and Early Career Professionals.

(NWSI) in "A Conversation about Unpacking Barriers to Diversity, Equity, and Inclusion (DEI) in Wilderness," a focus group session to identify opportunities to develop an interagency DEI toolbox for wilderness (see Redmore et al., this issue) (Table 1).

The learning and development framework offers a way to understand our individual and societal journey of understanding of concepts and ideas, including wilderness. It reveals that wilderness is a complex concept, in conversation with society and the managers charged with upholding laws and missions. As we address the rapidly retiring workforce, the Network offers opportunities, guided by a theory of change, to support, mentor, and include emerging and early career professionals in these conversations.

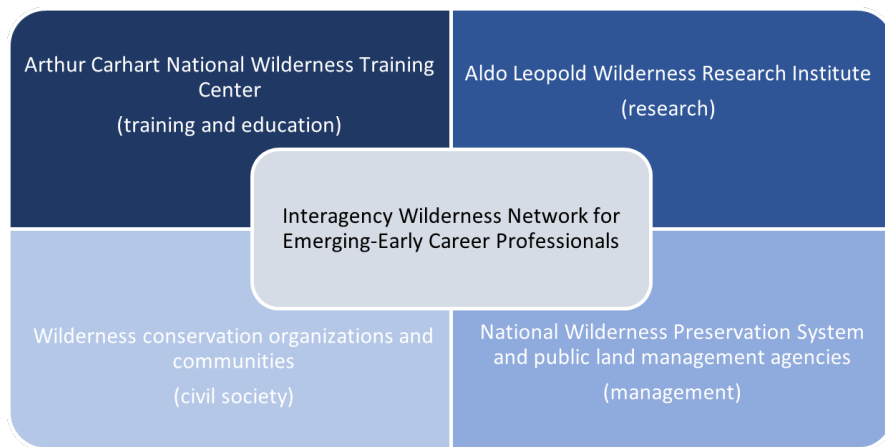


Figure 3 - The Interagency Wilderness Network for Emerging-Early Career Professionals model connects emerging and early career land management professionals with opportunities to contribute to and learn from the wilderness community at large.

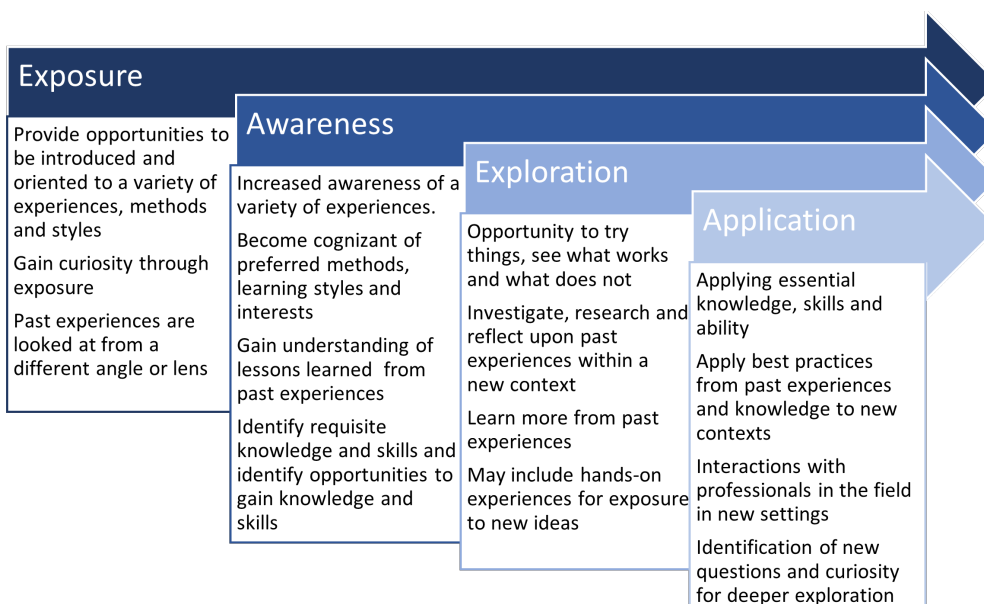


Figure 4 - The learning and development framework reflects the various stages of learning where one or more of the stages can occur simultaneously. Participants move from exposure to wilderness toward application in wilderness management contexts during the course of their involvement with the Network.

	PROCESS IN CONTEXT OF WILDERNESS	EXAMPLE IN PRACTICE
EXPOSURE	Participants are exposed to the concept of wilderness and wilderness stewardship. This may be an introduction for novices, or new information, skills, and experiences in and about wilderness, wilderness stewardship, and management for those already aware of wilderness.	<p>Action: Announcement of recruitment opportunity for focus group moderator training on for the topic of DEI in wilderness shared with agency counterparts and potential participants.</p> <p>Outcome: Touchpoints with prospective participants and basic sharing of information around topic and opportunities to engage.</p>
AWARENESS	Once exposed to the concept of wilderness, participants become more aware of what wilderness means, information about wilderness, best practices to wilderness stewardship, and management. Participants learn more about themselves and their interests, their connection to wilderness, and what opportunities are available to them.	<p>Action: Initial meetings with emerging and early career participants, sharing introductions and additional background on the project and wilderness more generally. Chance to learn about participants' interest in the project and skills they hope to apply, learn, and/or strengthen.</p> <p>Outcome: Awareness of ACNWTC, ALWRI, interagency wilderness work within the National Wilderness Preservation System, and the NWSI for continued wilderness learning.</p>
EXPLORATION	Opportunities are offered for exploration in wilderness stewardship through added knowledge, skills and wilderness learnings, research, training, mentoring, and education. Key to this stage are opportunities to learn and explore more about specific wilderness concepts.	<p>Action: 1½-hour-long virtual training that covered intro to key concepts of DEI, wilderness, and focus group moderation. Training materials on focus group moderation and DEI toolboxes were shared with participants for independent study.</p> <p>Outcome: Participation of focus group moderation training offered knowledge of DEI through the lens of wilderness and learnings of new skills in facilitating a meeting with interagency professionals.</p>
APPLICATION	Participants have the chance to practice the learnings in a real-world context, elevating their contributions to wilderness stewardship and growing their interest in wilderness management. As they encounter challenges in applying new knowledge and skills, they continue to deepen their knowledge and interest in wilderness.	<p>Action: Focus group discussion scripts were provided with an opportunity to review and personalize the script. Paired moderators and transcribers met separately to increase familiarity with each other prior to the focus group session. Focus groups were successfully moderated, and notes were shared with study leads. After analysis of focus group notes, participants were offered a chance to provide feedback around data interpretation and write-up.</p> <p>Outcome: Participants evaluated the experience, ranking it as a good opportunity, and were provided the opportunity to debrief lessons learned. Continued engagement with wilderness through write-ups and other contributions, including participation in future Network opportunities.</p>

Table 1 - The learning and development framework in action through the Network. Stages are linked with processes within the context of wilderness. An example in practice is provided to show how it guided the approach to focus group moderation training and execution during the NWSI on identifying opportunities to develop an interagency DEI toolbox for wilderness.

Network Impact To Date


Since I began this initiative in 2021, nearly 30 emerging and early career professionals across agencies (Forest Service resource assistants, Bureau of Land Management interns, US Fish and Wildlife Service advanced fellows, Virtual Student Federal Service intern) have worked on seven projects, and I continue to look for more opportunities to bring them onto short- or longer-term projects. Projects included

- *2022 Wilderness Interpretation, Education & Outreach virtual ACNWTC training course planning and implementation*
- *2022 National Wilderness Skills Institute focus group moderation on toolbox needs around diversity, equity, and inclusion in wilderness with ACNWTC and ALWRI*
- *Support toward publication of an article for the International Journal of Wilderness (See Santos et al., this issue)*
- *Review of the Interagency Wilderness Network Learning and Development framework*
- *Review of the ACNWTC's online Eppley training courses and help with the transfer of the courses to a new platform*
- *Recruitment of other emerging and early career professionals from US Fish and Wildlife Service and Bureau of Land Management emerging professionals' cadre*
- *ACNWTC's 2023 Wilderness Interpretation, Education, Outreach & Engagement: Where Do You Come In? in-person training planning, implementation, wilderness field trip leads*
- *Interagency Wilderness Messages Work Group for the regular review and update of interagency wilderness messages for agency staff*

Post-experience evaluations revealed that participants had high levels of satisfaction with the experience, with almost all reporting that they would be interested in engaging in future opportunities around wilderness specifically, and in research and training more generally. Emerging and early career professionals who participated in the 2022 NWSI focus group moderation offered important insights about DEI in wilderness, sharing, for example, that, "I learned that lack of DEI concepts are a real barrier to wellness, and further down the line, the overall positive culture and mission of the agency." Furthermore, their reflections on their experiences provide critical insights, for example, "Defining 'wilderness' is very important to begin these [focus group] sessions," a sentiment that reveals that even at wilderness-specific events, like the NWSI, wilderness is not a singular, monolithic term – something that may be taken for granted by managers who are more advanced in their careers in wilderness. Emerging and early career professionals see value in the Network, and my work has been enriched and made more impactful because of their participation.

Next Steps for the Network

As I reflect on the work to connect emerging and early career professionals with wilderness, there are many opportunities to build from lessons learned during the last two years. Specifically, efforts to reach out to agency programs managers about potential opportunities for emerging and early career professionals will continue to ensure that up-and-coming managers can engage early and often with wilderness. Furthermore, there are many opportunities to expand the Network to incorporate key partner organizations, such as Outward Bound Adventures, Southern Appalachian Wilderness Stewards, and the Society for Wilderness Stewardship, among others. These and other nonprofit organizations play a large part in connecting emerging and early career professionals to the wilderness community at large, especially given the important role of civil society.

Overall, there are significant opportunities to continue to refine the Network with the help of the emerging and early career professionals. With their input, we can shape the future of wilderness opportunities for the emerging workforce as retirements continue to accelerate. It is more important than ever to ensure continued wilderness stewardship, and a stewardship that reflects the changing demographics of our nation. The ability of our next generation of workers to steward wilderness is dependent on many collaborative efforts of the land management agencies, ACNWTC, ALWRI, and other wilderness conservation organizations. Finding and connecting emerging and early career professionals to wilderness community is key for the continued relevance of wilderness and our ability to steward wilderness for future generations. Emerging and early career professionals offer valuable perspectives, lived experiences, and professional experience that could be leveraged through partnerships, and the Interagency Wilderness Network is a choice for agencies to support and build current and future wilderness stewards. 

KIMM FOX-MIDDLETON is the wilderness interpretation and outreach specialist at the Arthur Carhart National Wilderness Training Center. She is an Environmental Professionals of Color member and former diversity, equity, and inclusion trainer for the National Park Service's Pacific West Region; email: kimm_fox-middleton@fws.gov.

Acknowledgments

Thank you to Sydney Fox-Middleton and Cecelia Fox-Middleton, who inspire and offer valuable perspectives as do all Generation Z emerging-early career professionals on what it means to be a wilderness steward "for the permanent good of the whole people." Thank you to Lauren Redmore who early on stepped in as a collaborator to help take the Interagency Wilderness Network from an idea to fruition. I am also grateful to Cassidy Bazley, Katherine Haveman, and Moniqu Rea, who were the first to experience the Interagency Wilderness Network for Emerging and Early Career Professionals as Forest Service resource assistants and now have successfully moved on to permanent positions. They continue to contribute their valuable insight and experience to the Network.

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Glacier Bay Wilderness provides outstanding opportunities for enduring connections. **Photo credit:** NPS/Kiana Young.

Reimagining the Wilderness Concept for a Diverse America: A Case Study of Inclusive Wilderness Stewardship in Glacier Bay National Park, Alaska

by **ADRIENNE LINDHOLM**



Adrienne Lindholm

Glacier Bay Wilderness

Glaciers have sculpted this landscape, from the sharp brows of its mountain peaks to the deep troughs of its fjords. Even the land itself is rising as the colossal weight of ice eases off it. Here, in what is now Glacier Bay National Park, it is as if the span of time has been condensed and unfurled across the landscape. It is a place renowned and protected for its biological diversity, constant change, and opportunity for study (National Park Service [NPS] 2023).

Since its exploration by John Muir in 1879, scientists from around the world have been attracted to Glacier Bay's living laboratory of intact ecosystems dominated by natural successional processes. Visitors continue to congregate in the warmer summer months to witness the calving of tidewater glaciers and contemplate change, resilience, and their connection to this dynamic landscape (NPS 2023).

Originally established as a national monument by presidential

“By honoring and recognizing past, current, and future connections people have to these places, and using language and images that foster a sense of belonging for all people, we will empower a new generation of stewards and will garner support for conservation.”

proclamation in 1925, the area became a national park with new land additions and designated wilderness in 1980 under the Alaska National Interest Land Conservation Act (ANILCA). Although Huna and Gunaaxoo Tlingit clans had called Glacier Bay and Dry Bay Homeland since time immemorial, little mention was made of the original inhabitants of this seemingly pristine landscape in early documents. Early park managers may have viewed Indigenous use as irrelevant to park purposes and values or may have been entirely ignorant of the enduring connection of Tlingit clans and their interconnectedness with Glacier Bay Homeland. Importantly, the dynamism of the park landscape and resulting successional processes essentially hid or erased evidence of long-term use and occupation of the land and waters of Glacier Bay by Tlingit clans.

Benefits of Wilderness

The wilderness designation offers benefits that are both complementary to, and distinct from, non-wilderness lands contained within National Park Service units (NPS 2023a). The benefits of wilderness are expanded in Alaska where, in addition to many of the benefits found in the lower 48, ANILCA protects food security for rural residents (Table 1).

Glacier Bay Wilderness, like all wilderness areas, provides myriad benefits that amplify National Park Service (NPS) unit protections, such as spaces for mental and physical health, spaces for growing connections with loved ones, tourism for local and regional economies, and protections for ecosystem services.

TYPE OF WILDERNESS BENEFIT	BENEFIT OF DESIGNATED WILDERNESS IN ALASKA
Ecosystem-scale preservation of the more-than-human world	Preserves cultural values of place, including cultural landscapes, headwaters to downstream protection of critical water supplies, class I air quality areas, and habitat protection for species with small (pika) and large (black bears) ranges.
Prioritization of human-powered access	Access by boot, wheelchair, paddle, motorboat, and airplane. Motorized access is managed in ways that are compatible with wilderness character.
Protections for areas being untrammeled (in other words, stewards strive to not manipulate or control the Earth and its community of life)	Recognizes the importance of people coexisting with the land and water, where people are thoughtful about actions they take.
Protections for solitude, primitive, and unconfined recreation	Provides opportunities for connection that are not disrupted by unwanted sights and sounds of others. Achieving this quality is deeply personal and experientially varies between people and cultures.
Food security	Protects subsistence resources vital to food security of rural residents.
Climate change resilience	Helps stabilize the climate and avoid species extinctions (Vynne, 2021). Provides refugia where the impacts of climate change are some of the most pronounced anywhere in the world (Taylor, 2023).

Table 1 - Benefits of Designated Wilderness

Criticisms of Wilderness

Given the long list of benefits of the federal wilderness designation, why, then, does there continue to be opposition to wilderness, and how can federal agencies like the NPS address it? Though there will always be those who favor motorized recreation and extractive industry over wilderness preservation, this article focuses on criticisms related to diversity, equity, inclusion, and accessibility.

US federally designated wilderness is commonly conflated with the concept of wilderness as defined by popular culture, which oftentimes perpetuates a myth that America was sparsely populated prior to 1492, and its ecosystems were virtually unmodified by human actions. This framing, especially when considering the relationship between wilderness and Indigenous lifeways, is highly problematic.

Wilderness has come under attack partly because its early champions failed to acknowledge the profound connection Indigenous People had, and continue to have, to these lands. Concerns relate to land dispossession, the fact that Indigenous People both occupied and shaped these unique landscapes, real and perceived lack of sincerity when federal agencies conduct legally required Tribal consultation, and agencies' slow embrace of co-stewardship conservation models. Wilderness has been criticized as racist, exclusive, a place with unreasonable restrictions on use, a place that erases culture and human history, and a place where only adventure enthusiasts belong.

The NPS in Alaska, and Glacier Bay National

Park specifically, have recognized the need for a more expansive wilderness stewardship model, a way to maximize the benefits of the wilderness designation for a broader range of people, and a way to perpetuate the values, uses, and connections people have had with these places since time before record.

The NPS in Alaska is reimagining wilderness and addressing some of the criticisms and misconceptions around wilderness because (1) those who manage and benefit from wilderness areas have a responsibility to acknowledge the traumatic history of establishing conservation lands in this country, (2) public land designation should serve diverse sectors of the American public, and (3) growing support for conservation is necessary for our own survival. There is a future that we are all a part of that is in trouble due to climate change, adverse impacts from resource extraction, and the hubris and indifference that epitomize the relationship that many people have toward the environment. Humankind, and virtually all nonhuman species on the planet—all of which are inherently valuable—are in peril. To garner support for conservation, we need to shift the national dialogue around wilderness, the land designation that offers the highest level of protection for the environment.

NPS Wilderness Reimagined

Sideboards for Reimagining the Wilderness Concept

The Wilderness Act of 1964, the Alaska National Interest Lands Conservation Act (ANILCA) of 1980, and NPS policy provide clear sideboards for how the agency can work to make wilderness more inclusive. While the definition of “wilderness” from the 1964 Wilderness Act and wilderness stewardship policy direction have not changed, NPS staff can use plain language to talk about wilderness character and wilderness values in ways that resonate more broadly. They can also talk about the history of wilderness in ways that honor and recognize many perspectives and points of view. They can elevate stories and experiences of underrepresented demographics and select images that are more inclusive than those that have been portrayed in the past. NPS employees can engage and partner with Tribes in meaningful ways. They can change how staff are trained and how they recruit the next generation of wilderness stewards. The NPS is not replacing Wilderness Act language or national policy but rather is broadening how they are implemented.

The Wilderness Act and ANILCA Support a More Inclusive Wilderness Concept

While some point to language in the Wilderness Act feeling offensive and exclusive, there is sufficient wording in both the Wilderness Act and ANILCA to support a more inclusive implementation of the wilderness concept.

The Wilderness Act was a direct response to widespread environmental destruction and the hubris of dominant Western culture—that humans are entitled to dominate and master our environment. Some misconstrue language in the Wilderness Act to imply that to protect the environment, the government must banish people from it. Rather than prohibiting people, the Wilderness Act prescribes a specific type of relationship that is compatible with environmental protection. The Wilderness Act interjects a necessary level of humility into the dominant perspective of how people relate to land.

Section 2(a) of the Wilderness Act states that Wilderness areas “shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness.”

Specific public purposes (or uses) of wilderness are described in the Wilderness Act, Section 4b: “Except as otherwise provided in this Act, wilderness areas shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use.” This use set uniquely positions wilderness as an interdisciplinary concept and place that spans experiential, knowledge-growing, and preservation interests.

Special provisions are included for livestock grazing, aircraft use, motorboat use, commercial services, and others. The Wilderness Act certainly envisioned people on the land; it defined the relationship between people and the land with sideboards to protect the sanctity of nonhuman life and processes. Additionally, 2006 NPS Management Policies support access for traditionally



Figure 1 – Alaska Wilderness protects subsistence resources such as salmon. Traditional knowledge passed down by generations of elders comes from a communal understanding of these ecosystems. Photo courtesy of NPS/T. Vaughn.

associated peoples and encourage cooperative conservation of resources.

In Alaska, all NPS wilderness was designated through ANILCA. ANILCA assures access to and use of traditional homelands by providing for the continuation of subsistence activities; reasonable access to subsistence resources; a preference for subsistence harvest over other consumptive uses; and for development, retention, and use of cabins and other structures to support subsistence uses (Figure 1). ANILCA also allows certain types of motorized access for nonsubsistence purposes, as well as the potential to use and maintain cabins and other structures under certain circumstances (Figure 2).

Combined, the Wilderness Act and ANILCA allow us to imagine myriad ways people might value spaces we now call wilderness. Over the last several years, NPS managers in Alaska have been working to create a cultural shift within the agency to think about wilderness not as a place devoid of people but instead as a place where people can find a diversity of meaningful connections with the land. Within Alaska, Glacier Bay has been leading the way by operationalizing the following strategies.

Present a Holistic and Honest Narrative around Wilderness

To address some of the criticisms of the Wilderness Act, Alaska parks are beginning to acknowledge the role that conservation has played in Indigenous land dispossession and are presenting factual information about the variety of ways people can connect to wilderness.



Figure 2 – ANILCA allows people to access wilderness areas by airplane and motorboat. Photo courtesy of NPS/A. Lindholm.

To help change misinformed narratives around wilderness lands, we now convey the following themes in our communications:

- *Wilderness stewardship builds upon the legacy of shared connections between people and the land.*
- *Homelands of Indigenous peoples that are now also recognized as wilderness are the culmination of thousands of years of Indigenous land stewardship.*
- *People belong in wilderness and can find many ways to use and value wilderness lands and waters.*

Changing the Wilderness Narrative at Glacier Bay National Park

In 2018, Glacier Bay National Park signaled that it was beginning to honor its uncomfortable history through the carving of the Healing Totem Pole that stands at the head of the public dock in Glacier Bay National Park. Designed by tribal elders, culture bearers, artists, and National Park Service staff, it depicts the Huna Tlingit's tragic migration from Glacier Bay Homeland, a painful period of alienation, and more recent collaborative efforts between the tribe and the NPS. The Healing Totem Pole was specifically designed not only to relate the difficult history between NPS and the Huna Tlingit but also to relay the history of people working to overcome past hurts and heal.



Figure 3 – Content from 2023 Glacier Bay National Park Backcountry and Wilderness Management Plan.

One step forward on the reconciliation journey occurred several years ago when staff at Glacier Bay National Park began collaborating with tribes to shift the culture around wilderness stewardship. The wilderness character of Glacier Bay National Park is now defined, in part, by the sustained connection between past, present, and future generations of Tlingit and the lands and waters they call Homeland. The Tlingit have sustained themselves in

Glacier Bay for centuries, and as the glaciers, rivers, and nonhuman life have advanced and receded through Homeland, so have the clans and Tlingit ancestors. Tlingit interactions with Homeland have shaped the ecology of the area for countless generations through simple acts such as harvesting berries, salmon, and gull eggs and through more complex metaphysical and spiritual processes as well. The park began to develop management plans

that recognize Homeland values, and they initiated specific projects that actively engage those values.

Glacier Bay's 2023 Backcountry and Wilderness Management Plan was informed by ongoing, informal and formal government-to-government consultation with the Hoonah Indian Association and the Yakutat Tlingit Tribe, representing the original people and stewards of Glacier Bay. The NPS collaborated with both Tribes to ensure that the plan addressed longstanding tribal priorities, advanced challenging conversations about Homeland issues, and established a clear pathway for collaboratively resolving challenging issues (access, traditional fishing and hunting, land acknowledgment protocol).

Park planning documents underscore the themes listed above. For example, the following excerpt from the plan helps change the narrative that people have never been in Wilderness and don't belong: "Tlingit ancestors whose spirits remain in Homeland, are not visitors but rather residents of the Glacier Bay Wilderness. Their presence in Homeland is recognized and honored on every trip to Homeland. For the Tlingit, a return to Homeland is an opportunity to be in the presence of those who have gone before and to engage with the landscape in the same way that ancestors engaged."

Shared Values

Alaska park managers collaborated with Indigenous and other partners to identify shared values and then built content and collaborations from there. This list of values is generally shared between traditional Indigenous beliefs and the values that underpin the Wilderness Act:

- *Clean air and clean water*
- *Humans are part of nature*
- *Sense of connection and belonging*
- *Responsibility*
- *Reciprocity*
- *Sense of restraint as opposed to limitless growth/capitalism/materialism*
- *Humility as opposed to the dominant belief that science and technology can solve all our problems*

Glacier Bay National Park discusses this overlap in web page content: "Indigenous perspectives about traditional Homeland have much in common with the aspirations of the Wilderness Act. Both embrace the interrelatedness of humans and the larger community of life; the need for humility, respect, and restraint in relating to the natural world; the need to think forward to future generations (Haa yatx'í jeeyis áyá; for our children); and the value of meaningful personal connection to place."

Honor a Variety of Worldviews and Connections

In Glacier Bay's 2023 Backcountry and Wilderness Management Plan, Tribal perspectives and cultural information are presented as substantive content. In addition to highlighting areas of overlap between Indigenous and Western worldviews, the planning process also created space for situations in which the two worldviews do not align.

This excerpt from the plan talks about how Homeland is not free from human control but rather in an intimate and balanced relationship with it (Figure 4). This is a different perspective than the worldview described in the federal Wilderness definition, which considers Wilderness as a place free from human control and manipulation. The park recognizes the fact that both worldviews can exist simultaneously.

Use Plain Language in Describing Wilderness Act Concepts

The Wilderness Act contains a definition of wilderness, which can feel confusing and exclusionary to some people. Language in Table 2, below, expounds upon phrases in the Wilderness Act to better recognize wilderness as inhabited spaces, homelands, and cultural or community places of value and connection. Plain language phrasing underscores the spirit of the act, which is about protecting special places from pollution and permanent industrial development, and that implores us to be thoughtful and mindful of our relationship with our surroundings.

These additional descriptions allow for broader interpretation of terms while remaining within the sideboards of existing law and policy. For example, "opportunities for solitude" is a quality of wilderness character. Many groups affiliated with the dominant culture associate solitude with an absence of other people. Many Indigenous groups believe everything on the land is animate, a relative, and that spirits of ancestors are always present. A person could never be "alone." What matters very much is to be able to honor the connections with nonhuman relatives and human ancestors. These two worldviews do not need to be incompatible. It is reasonable that solitude can relate to both and that the NPS can manage wilderness to provide opportunities for people to experience (1) the state of being alone and (2) feeling connected to a place without having that connection violated. These are different, and compatible, interpretations of solitude.

Similarly, the Wilderness Act phrase "untrammelled by man" is often misinterpreted to suggest that agencies will never modify or restore any component of an ecosystem, and it can give the



Wilderness Act Language (1964)	Why this phrasing can be problematic	Interagency Wilderness Policy (Keeping It Wild2, Landres et al. 2015)	Plain language	Phrasing used by Glacier Bay National Park
"untrammeled by man"	Definition of "untrammeled" is often misinterpreted to suggest that wilderness has no human impact and that agencies will never modify or restore any component of an ecosystem; often construed as suggesting that human control of the environment is always negative, which is a view generally not held by Indigenous peoples and other groups; the phrase can insinuate that humans ruin the land.	"wilderness is essentially unhindered and free from the intentional actions of modern human control or manipulation. This quality directly relates to 'symbolic meanings of humility, restraint, and interdependence that inspire human connection with nature' described in the definition of wilderness character. The Untrammeled Quality is a unique legislative requirement among all types of land management, defining wilderness in terms of how it is managed rather than what is there."	Wilderness is a place where people practice humility, respect, and restraint in relating to the natural world.	A place of hope – for the continued wisdom, restraint, and humility to preserve a sample of wild America. (NPS 2022) This is a place where one can feel a part of the community of life, of something greater where humans have not exerted their dominance over and above all other life-forms. This connection with the greater community of life is ingrained in the Tlingit worldview, as the spirits of all living and nonliving things are equally respected. (NPS 2023)
"without permanent improvements or human habitation" / "the imprint of man's work substantially unnoticeable" / "where man himself is a visitor who does not remain" / "primeval character and influence"	These phrases are often interpreted to suggest that humans don't belong, and that wilderness is a place devoid of human impact/history; suggests that evidence of human use/occupation detracts from wilderness.	"directly relates to 'personal experiences in natural environments relatively free from the encumbrances and signs of modern society' and 'symbolic meanings of humility, restraint, and interdependence that inspire human connection with nature' described in the above definition of wilderness character"	Where humans participate gently/thoughtfully/responsibly in the community of life.	A deep and enduring connection with this greater community of life is ingrained in the Tlingit worldview and respectful interaction with all beings ensures community health. (NPS 2023) This reflects our need for places to turn to for replenishing ourselves, to step away from the demands of our culture, to be present to the wind and sounds of nature. (NPS 2023b)
"opportunities for solitude"	"Solitude" as a condition of being alone doesn't make sense to many Indigenous people and other groups who believe their ancestors and nonhuman relations are omnipresent, and their connection with them is valued.	"This quality focuses on the tangible aspects of the setting that affect the opportunity for people to directly experience wilderness. It directly relates to 'personal experiences in natural environments relatively free from the encumbrances and signs of modern society' described in the definition of wilderness character."	the opportunity for connection is not disrupted (by development, machines, technology, etc.)	In this isolated corner of the continent, the ability to explore freely, challenge oneself, find solitude, or seek the company of the ancestral spirits is truly remarkable. (NPS 2023)
"primitive...recreation"	"Primitive" as it pertains to people is derogatory, and although the word modifies "recreation" in the Wilderness Act, the word can feel off-putting	"wilderness provides outstanding opportunities for recreation in an environment that is relatively free from the encumbrances of modern society, and for the experience of the benefits and inspiration derived from self-reliance, self-discovery, physical and mental challenge, and freedom from societal obligations."	traditional/conventional experiences	Visitors utilize waterways, glaciers, animal trails, and sheer audacity and perseverance to move through the wilderness. (NPS 2023) While many visitors come to Glacier Bay to witness the spectacle of a whale breaching or a glacier calving, and are understandably awed by nature's exhibitions, the Tlingit would perhaps experience the whale's breach and the crumbling ice as communication between the leviathan, the glacier, and their human clan relatives. (NPS 2023) Gathering food resources is a particularly important traditional activity, as the process of harvesting is not only a means of sustaining physical needs, but also a ritual for reconnecting and engaging with ancestral spirits. (NPS 2023)

Table 2 – Plain Language Descriptions of Wilderness Act and NPS Wilderness Policy Concepts.



Figure 5 – Wilderness areas protect entire ecosystems and give us a chance to contemplate our role in the community of life. Photo courtesy of NPS/L. Buchheit.

impression that humans ruin the land. According to national policy (Landres et al. 2015), the untrammeled quality addresses actions that managers take today (not in the past prior to wilderness designation) where the land manager had an opportunity to exercise restraint. It's a measure of how much restraint and respect we use in our stewardship. This quality of wilderness character is often touted by Western conservationists as the thing that sets wilderness apart from other land designations, and it is viewed by many as the soul of the Wilderness Act. The value of living in good relationship with the land is simultaneously paramount to most Indigenous cultures, who view themselves as interconnected and kin to the nonhuman world. The Wilderness Act injects a necessary level of humility into the

dominant perspective of how people relate to land. It moves the Western view closer to that of Indigenous peoples. Wilderness is a place where worldviews sometimes come together. Modernized plain language can help bridge that gap.

Use Inclusive Wilderness Language

To increase the likelihood that wilderness stewardship concepts will resonate with the widest demographic possible, wilderness stewards can use inclusive language when describing wilderness character qualities and elements of stewardship such as planning and monitoring.

One strategy Glacier Bay National Park employed in their 2023 Backcountry and Wilderness Management Plan was to collaborate with tribes to "Indigenize" planning language.

Tlingit language elements encourage the public to think about the park and the plan through the worldview of those who consider Glacier Bay National Park as Homeland. This exercise also transformed bureaucratic language and made it more accessible to people outside the government.

The park's tribal liaison took Western headings and phrases such as "scope of the plan" and "camper drop-off locations" and converted them into more approachable language such as "what's in this book" and "where the boat stops." She translated the phrases into Tlingit and then consulted with elders and a younger fluent speaker for assistance with orthography.

The park also avoided using descriptors such as "pristine" or "untouched" (words that do not appear in the Wilderness Act) to demonstrate that it recognizes the longstanding and ongoing role of people and their connection to lands we now manage as wilderness.

Alaska park staff have also found it helpful to use plain language when speaking about the qualities of wilderness character. Table 3 shows the definitions of the qualities of wilderness character per national policy (Landres et al 2015) alongside complementary descriptions of each quality. When agency staff use these in conjunction, they are more likely to reach a broader audience.

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Figure 6 – Excerpt from 2023 Glacier Bay National Park Backcountry and Wilderness Management Plan table of contents.

WILDERNESS CHARACTER QUALITY	NPS POLICY DESCRIPTION	NPS PLAIN LANGUAGE DESCRIPTION
Untrammeled	Wilderness is essentially unhindered and free from intentional actions of modern human control or manipulation.	This quality recognizes the importance of people coexisting with our planet, where people are thoughtful about actions they take that might interfere with the rest of the natural world.
Natural	Wilderness is substantially free from the effects of modern civilization.	This quality recognizes the importance of healthy, intact ecosystems and challenges us to limit our negative effects on the functionality of these systems.
Undeveloped	Wilderness is essentially without permanent improvement or the sights and sounds of modern human occupation.	This quality recognizes that while developments and use of motorized equipment are appropriate in many places, wilderness gives us a chance to consider more traditional ways of interacting with the rest of the natural world.
Solitude or Primitive and Unconfined Recreation	Wilderness provides outstanding opportunities for recreation in an environment that is relatively free from the encumbrances of modern society, and for the experience of the benefits and inspiration derived from self-reliance, self-discovery, physical and mental challenge, and freedom from social obligations.	This quality recognizes many activities are appropriate and compatible with wilderness, especially those that rely on human power and give us a chance to "unplug."

Table 3 – NPS Policy and Plain Language Descriptions of Wilderness Character Qualities.

Promoting Inclusion through Digital Media and Diverse Images

In addition to using inclusive language, the Alaska national parks are taking a hard look at web content and other digital media related to wilderness and are considering what messages we are conveying through the images we show.

Several years ago, the NPS Alaska Region looked through a year of social media images related to wilderness. They were primarily pretty landscapes. We were hard-pressed to find people in the images, and when we did, it was usually a young, able-bodied white person, often solitary or with a partner. That is a perfectly acceptable image to show if it is not the only type of image depicted. Since then, the agency has been co-creating social media posts with appropriate groups and promoting images of wilderness that include different people (e.g., race, gender, body type, etc.), who have different abilities, who participate in different group sizes, and who connect with these places in a variety of ways.

Alaska National Parks •
March 5, 2019 •

What is Wilderness? Wilderness is natural. Ecological systems are substantially free from the effects of modern civilization.
NPS Photo/K. Miller



328 6 comments 23 shares

Denali National Park and Preserve •
September 3, 2020 •

On this Day: The Wilderness Act of 1964 was passed by Lyndon Johnson, after over sixty drafts and eight years of work by the Wilderness Society. The Act established the National Wilderness Preservation System, a national network of more than 400 federally-designated wilderness areas. These wilderness areas are managed by the National Park Service, Bureau of Land Management, US Fish and Wildlife Service, and USDA Forest Service.

"A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain." - Howard Zahniser

This video explains more: <https://www.nps.gov/media/video/view.htm...>

While we commonly think of Denali as 6 million acres of beautiful wilderness, in reality it is only little more than 2 million acres of capital "W" Wilderness, as defined by the Act. The rest are park and preserve lands.

Learn more about Denali's Wilderness here:
<https://www.nps.gov/dena/learn/nature/wilderness.htm>



1K 11 comments 76 shares

Denali National Park and Preserve •
July 8, 2020 •

Fresh air, wide-open spaces, the chance to explore on your own two feet... There's something special about backpacking in Denali's trail-less wilderness. This summer, the process for getting an overnight backcountry permit is a little different. Learn how, where, and when: www.nps.gov/dena/planyourvisit/backcountry.htm


NPS Photo/ S. McLane
#WildernessWednesday



524 8 comments 15 shares

Glacier Bay National Park and Preserve •
September 30, 2021 •

Glacier Bay is Homeland for the Huna Tlingit, and on the final day of #NationalWildernessMonth we celebrate the enduring connection they share with this wild landscape. See and hear more on our website: <https://www.nps.gov/.../glacier-bay-wilderness-as...>



225 3 comments 65 shares

Figure 7a-d– Before/after examples of NPS Alaska social media posts. Combined, these images are likely to resonate with more people.

Educating NPS Staff with New Inclusive Wilderness Training Materials

The NPS Alaska Region recently created new wilderness training curriculum for park staff that emphasizes inclusive messaging and an invitation to consider the topic of wilderness from multiple perspectives. The Alaska National Parklands Wilderness Training is an entry-level workbook with facilitated activities that is intended to introduce the wilderness concept and basic principles of wilderness stewardship. The primary purpose of the training is to promote a deeper understanding of wilderness and the evolving interpretations of wilderness that reflect the needs of a present-day multicultural America.

Expanding our thinking around Wilderness Act concepts, utilizing inclusive messaging, conveying diverse images in digital media, and training NPS staff in these concepts is laying the groundwork for changing the culture of wilderness stewardship and influencing the national narrative around what wilderness is and how it can benefit everyone.

Conclusion

The continued relationship of the Huna Tlingit with their Homeland is as much a part of the wilderness character of Glacier Bay as the glaciers, bears, and the opportunity for an unconstrained experience. As the 2023 Glacier Bay Backcountry and Wilderness Management Plan strives to protect the landscape as intact Homeland and help perpetuate connections between the Glacier Bay Wilderness and traditionally associated people, most Alaska parks are also embracing a new, more inclusive paradigm in their stewardship. In the years to come, we can look forward to additional examples of operationalizing an inclusive wilderness concept that honors and elevates the roles of Indigenous people, addresses some of the harmful misconceptions of wilderness, and promotes stewardship that includes a range of values and connections people have with the land.

By honoring and recognizing past, current, and future connections people have to these places, and using language and images that foster a sense of belonging for all people, we will empower a new generation of stewards and will garner support for conservation. The NPS acknowledges the uncomfortable truths of conservation while simultaneously honoring and promoting the myriad values of the wilderness designation.

There is a future we are facing together, and that future is in trouble—the climate crisis, harmful effects from resource extraction, and diminishing sense of community and connection to place, to name a few. To have a healthy environment for human and nonhuman life, we are going to need a lot of different ways of caring for the land. I submit that the federal wilderness designation, interpreted inclusively moving forward, is a critical part of the solution. Leveraging the environmental protections that the wilderness designation affords, we can mitigate some of the effects of climate change, live in places that provide us with deep connections, and protect air and water that we all need to survive.

Doing away with the wilderness designation, as some propose, would not help correct the

facts of history, would not help strengthen connections between excluded groups and natural areas, and would not resolve past injustices, promote healing and reconciliation, or enhance conservation. Instead, reimagining the existing system while creating alternative systems will move us forward to a brighter shared future.

Our multicultural society needs wilderness now more than ever. 

ADRIENNE LINDHOLM has worked for the National Park Service in Alaska since 2000. She oversees the Wilderness Stewardship Program; email: Adrienne_Lindholm@nps.gov.

Acknowledgements

Thank you to current and former National Park Service employees at Glacier Bay National Park and Preserve who contributed content and/or provided review, especially Mary Beth Moss, Sara Doyle, Philip Hooge, Laura Buchheit, and Barbara Miranda. Additional review was provided by Sarah Creachbaum, Grant Hilderbrand, Peter Christian, and Erin Drake. Thank you to all the Tribal, NGO, and other entities whose leadership on inclusion and equity in the outdoors has informed our work.

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Alpine Lakes Wilderness. . Photo credit: Lauren Redmore.

Toward an Interagency Toolbox for Diversity, Equity, and Inclusion in Wilderness: Findings from Five Focus Group Discussions with Wilderness Professionals

by LAUREN REDMORE, KIMM FOX-MIDDLETON, KEREN-HAPPUCH CRUM, MARGARET GREGORY, CASSIDY MOTAHARI, MARY POWERS, RUBY SAINZ ARMENDARIZ, AMANDA GRACE SANTOS, and LEA SCHRAM von HAUPT



Lauren Redmore



Kimm Fox-Middleton



Keren Happuch-Crum



Margaret Gregory



Cassidy Motahari



Mary Powers



Ruby Sainz Armendariz



Amanda Grace Santos



Lea Schram Von Haupt

ABSTRACT US federal land management agencies serve the American people and work to ensure that all Americans connect with and value wilderness. As a result, wilderness managers may prioritize diversity, equity, and inclusion (DEI), though may lack wilderness-specific tools and resources to foster commitments to DEI. As agencies and organizations turn to virtual resources to share information – what we refer to as toolboxes – questions remain about their utility and potential to impact DEI outcomes in wilderness. This article describes the process and results of five virtual focus group discussions with wilderness managers and key partners aimed at better understanding DEI toolbox-related needs, as well as the limitations of a DEI toolbox and opportunities to maximize potential impact of any DEI-related efforts. Key findings highlight that an interagency DEI toolbox for wilderness management could collate resources and lessons learned from innovation happening across the National Wilderness Preservation System. Yet wilderness-specific DEI goals are currently ambiguous and would benefit from clear articulation to track the impact of efforts. Participants emphasized needing leadership support and funds to advance innovation and partnerships with diverse organizations. Findings also highlight challenges associated with recruiting and retaining a diverse workforce, and navigating a wilderness culture that some participants feel has sidelined diverse connections with and stewardship of wilderness. A DEI toolbox could benefit practitioners – but could be most impactful if considered as complementary to other federal initiatives seeking to diversify workforces, fund innovation, and grow partnership with organizations representing underserved communities.

Keywords: National Wilderness Preservation System; diversity, equity, and inclusion; focus groups; virtual toolbox; partnership; funding; wilderness culture

In 2021, the White House issued the Executive Order on Diversity, Equity, Inclusion, and Accessibility in the Federal Workforce to address persistent gaps in employment and workplace advancement opportunities for Black, Indigenous, and People of Color (BIPOC) and other underserved people. Decades of initiatives to recruit and retain a diverse workforce have largely fallen short of desired goals (Lee et al. 2021; Naff and Kellough 2003; Westphal et al. 2022). There are many justifications for the value of ensuring diversity, equity, and inclusion (DEI) within the federal workforce, and many of them center the US government's ability to effectively develop, deliver, and administer programs, goods, and services to the American people (Batavia et al. 2020; Brown and Harris 1993).

DEI-related issues penetrate beyond the workforce and across society. Historically, a wide array of US federal policies dating back to the founding of the country have resulted in many BIPOC communities significantly losing their lands while the federal estate expanded (e.g., Nash 2019; Nash 2014; Wilson 2020). Even when BIPOC communities were not directly removed, social, cultural, religious, and livelihood practices were often criminalized, resulting in profound alienation from their relationships with the land and each other (Adlam et al. 2022; Brewer and Dennis 2019; Dent et al. 2023; Lee et al. 2022). Today, underserved communities lack access to public services, including public lands, leading many public lands managers to question whether and how public lands serve the American public (e.g., Bradshaw and Doak 2022; Flores et al. 2018; Johnson et al. 2007; Taylor 2000; Washburne 1978). BIPOC people, people with disabilities,

LGBTQIA+ people, and other underserved Americans have long experienced and continue to experience discrimination and marginalization, shaping people's access to and use of public land today (e.g., Dietsch et al. 2021; Schmidt 2021; Schultz et al. 2019; Stanley 2020).

This knowledge has led to the proliferation of programs, initiatives, and efforts seeking to redress injustices and harms disproportionately born by underserved communities (Callahan et al. 2021; White House 2022). This includes federally designated wilderness where questions of relevancy and access for underserved communities are now priority issues (Taylor et al. 2023a). The National Wilderness Preservation System offers the highest protection to 111 million acres of our nation's public lands. Wilderness management focuses on preserving the land as "an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain" (Wilderness Act 1964, section 2c). Some scholars have interpreted this orientation as situating people outside of nature and perpetuating ideas of pristine wilderness visited temporarily to restore oneself from the stresses of human society (Cronon 1996; Holmes n.d.). Yet culture and society construct wilderness, an understanding reflected in the full title of "An Act to establish a National Wilderness Preservation System for the permanent good of the whole people, and for other purposes." As more diverse voices are sought out, heard, and included – through partnerships, visitation and more – wilderness itself may be reshaped by new practices, interpretations, and values.

In May 2022, we held a series of virtual focus groups at the second annual virtual National Wilderness Skills Institute (NWSI), an annual coming together for training and conversations around various topics of importance to wilderness management professionals. We wanted to better understand:

- *What do wilderness management professionals want from a DEI toolbox for wilderness?*
- *What are limitations of a DEI toolbox for wilderness?*
- *What are opportunities to improve the impact of a DEI toolbox for wilderness?*

In this research, we do not address all facets of DEI in wilderness given how numerous, interrelated, and wide-ranging they are (see, for example, Botta and Fitzgerald 2020; Davis 2019; Rice 2022; Schultz et al., 2019). Instead, we generally examine the research on DEI trainings and toolboxes and explore the potential utility of and possibilities for developing an impactful interagency DEI toolbox for wilderness – in particular as any such effort has potential to create systemic change. Interagency refers to the four agencies charged with management of the US National Wilderness Preservation System, specifically the Bureau of Land Management, the National Park Service, the US Fish and Wildlife Agency, and the USDA Forest Service, but also considers the roles of nonprofit organizations and other key wilderness-delivery partners.

Background

The State of Knowledge on Diversity, Equity, and Inclusion Trainings

DEI initiatives date back to the civil rights movement of the 1960s but have proliferated in recent years in response to highly publicized instances of bias against people of color (Devine and Ash 2022). Many of these instances revolved around workplaces and workers; for instance, the 2018 Starbucks incident when a manager called the police on two Black men for sitting at a table without ordering anything (Chen 2020). Starbucks shut down their more than 8,000 stores nationwide for a mandatory half-day anti-bias training, costing the company more than \$16 million in lost sales for the day (Pontefract 2018). This has led to the emergence of what some writers refer to as the DEI-industrial complex, given the size and scope of the burgeoning industry aimed at making workplaces and the services they provide welcoming to people from all backgrounds and, ideally, more reflective of the general public (Zheng 2022).

The scholarship on DEI trainings and initiatives show that they largely have mixed results. Often, they either fail to deliver long-term results or magnify problems; for example, by eroding a sense of belonging of underrepresented group members (Georgeac and Rattan 2022; Lai and Lisnek 2023). In fact, research indicates that three common DEI programs—specifically, mandatory diversity trainings, job tests, and grievance systems—create a sense of resentment amongst managers, disincentivize participation, and decrease representation (Dobbin and Kalev 2016). This means that many DEI programs may actually make companies less, not more, diverse (Dobbin and Kalev 2016). Some authors criticize DEI initiatives for leveraging a sense of urgency to push through poorly understood trainings and practices, a problem that underscores the depth of white supremacy culture in some organizations (Glass 2023; Jones and Okun 2001).

Cox (2022) argued that many DEI initiatives fail when trainings are developed from an information deficit approach. This approach assumes that people fail to adopt desired behaviors because they lack the knowledge that could initiate a change in behavior. Instead, Cox offered that empowerment-based approaches, whereby people are empowered with tools and skills to identify and reduce bias within themselves and others by breaking cycles of habits, may lead to more impactful changes (Cox 2022). In this way, the development of goals and indicators may be most empowering and impactful when they are adaptive and driven from the bottom up, either with the workforce writ-large or with communities most impacted by inequitable practices (Petriello et al. 2021). Well-defined DEI goals and metrics, scholars say, should account for differences across scales of impact and the interactions across those nested scales (Hinton and Lambert 2022). While some outcomes are easy to measure – for example hiring, retention, and pay – others – especially culture and bias – are difficult to measure and often require complementary approaches of examination (Davenport et al. 2022; Hinton and Lambert 2022).

Furthermore, scholars and practitioners increasingly recognize the need to change systems rather than individuals operating within the system (Melaku and Winkler 2022; Mitchneck and

Smith 2021). Systems of operation are often invisible and taken for granted. These include formal and informal rules and practices, the costs and benefits of institutions and infrastructure, and historical injustices and their legacies, among others (Fleischman et al. 2014; Fukuyama 2016; Ostrom 2015; Schlosberg 2004). Yet, as Devine and Ash (2022) point out, most evaluations of DEI work are done at the individual level immediately following a training, rather than at the systems level over a longer period of time. This highlights an important gap between creating lessons and tools and ensuring their effective deployment and impact.

A Need for a Collection of DEI Tools and Resources for Wilderness?

Much of the growth in the now multibillion-dollar DEI trainings industry has focused on employee resource groups and related trainings (Research and Markets 2022). Yet there has been increased interest and support for the creation of more passive DEI resources in recent years, including toolboxes and toolkits, leading to a proliferation of online resources where the depth of impact is likely unknowable. To our knowledge, no shared definition for a virtual DEI toolbox or toolkit exists beyond a place where tools are organized and kept. However, toolboxes and toolkits share many characteristics – including collating or creating a variety of definitions, exercises, activities, case studies, and more. Many examples of DEI toolkits are freely available online; we share some below, in Table 1.

It is within this context that we define a toolbox as a collection of skills, information, and practices concerning a specific area of interest – in our case, DEI in wilderness. We conducted this research on behalf of interagency wilderness commitments to DEI, and in response to a specific ask from the USDA Forest Service Wilderness Advisory Group (WAG) and Wilderness Information Management Steering Team (WIMST). Specifically, in concert with other federal initiatives to create DEI toolboxes and toolkits to share resources, data, and best practices to help advance DEI directives across agencies, WAG and WIMST approached the first two coauthors, Redmore and Fox-Middleton, about identifying the needs of interagency wilderness management professionals in a toolbox for DEI in wilderness.

Wilderness Connect (<https://wilderness.net>) is an interagency website and an authority for wilderness-related information. The site hosts a variety of toolboxes aimed at supporting on-the-ground wilderness management (<https://wilderness.net/practitioners/toolboxes/default.php>). Yet the current format of these toolboxes may limit their utility given the breadth and depth of DEI-related topics as compared to other wilderness-management topics; for instance, air quality, night skies, signs and posters, and other issues that may offer more generalized principles. By contrast, DEI-related issues are nuanced and multifaceted, spanning social scales from individual psychology to community and culture to institutional. Therefore, WAG and WIMST wanted to know what managers need to address complex DEI-related issues in wilderness and how these needs might lead to a novel interagency toolbox. This is the first effort that we are aware of to explore needs, limitations, and opportunities to create and collate DEI tools within the context of federally designated wilderness.

Organization	Resource link	Shared with focus group moderators	Shared with focus group participants
American Association of University Women	https://www.aauw.org/resources/member/governance-tools/dei-toolkit/plug-play-dei-programming/	X	
American Public Health Association	https://www.apha.org/-/media/files/pdf/affiliates/equity_toolkit.ashx	X	
Brown University	https://www.brown.edu/about/administration/institutional-diversity/resources-initiatives/resources-students-faculty-staff-and-alumni/diversity-and-inclusion-toolkit	X	
Training Resources for the Environmental Community	https://www.trec.org/toolkits/dei-toolkit-1-foundations/	X	X
River Network	https://www.rivernetwork.org/resource/equity-diversity-inclusion-resources		X
Forests in Cities	https://fic.naturalareasnyc.org/docs/dei		X
Partnership for the National Trails System	https://pnts.org/new/resources/diversity-and-inclusion-resources/		X
Racial Equity Alliance	https://racialequityalliance.org/wp-content/uploads/2015/10/GARE-Racial_Equity_Toolkit.pdf		X

Table 1 – Examples of DEI resources shared with focus group moderators and participants prior to focus group moderation training (for moderators) and discussions (for participants).

Methods

Focus Group Moderator Recruitment and Training

To address the research questions, we used focus group methodology to gain a deeper understanding of experiences of wilderness managers. Focus groups are useful to gain both a breadth and depth of understanding, given that participants can be in conversation with each other (Krueger and Casey 2002). To maximize the number of participants and focus group sessions, Redmore and Fox-Middleton recruited 11 Forest Service resource assistants (RAs) to assist with focus group moderation and transcription. RAs were members of an internship program recruiting diverse talent into the agency, as a part of the Interagency Wilderness Network for Emerging-Early Career Professionals, an initiative started by Fox-Middleton to connect future land managers with wilderness experiences (see Fox-Middleton, this issue).

Nine RAs attended a one-and-a-half-hour-long virtual training on May 20, 2022, where they learned about DEI, wilderness, and focus group moderation – many learning about these topics for the first time, a limitation explored below. Two RAs watched a recording of this training. Prior to the training, all RAs received training materials on moderating focus groups and examples of DEI resources developed by other organizations (Table 1). Redmore assigned RAs as either group moderators or transcribers and provided teams with interview scripts several days before the focus group to familiarize themselves with the guiding questions.

Participant Recruitment and Selection

As part of NWSI online sign-ups, potential participants indicated their interest in the session titled “From Knowledge to Impact: A Conversation about Unpacking Barriers to Diversity, Equity, and Inclusion (DEI) in Wilderness.” To maximize the agencies represented, we grouped the names of 84 potential participants based on their workplace, specifically: whether they were affiliated with a federal land managing agency and which one, and whether they were affiliated with federal partners, including city and county parks, recreation departments, tribal nations, nonprofits, or universities. Using a stratified random sample approach, we selected a priority list of 40 invitees total from the four land management agencies and partner organizations by type (Bernard 2006). We notified invitees of their selection and requested them to RSVP to maximize attendance. If invitees responded that they could not attend, the researchers selected additional names from a wait list until 30 invitees confirmed they could attend,



Figure 1 – Spheres of influence of wilderness managers over diversity, equity, and inclusion.

Organization type	Number of participants
USDA Forest Service	10
Nonprofits	7
City/county parks and recreation departments	2
US Bureau of Land Management	1
US National Park Service	1
Native American Nation	1

Table 2 – Focus group participants by organization type.

ensuring three to five participants per group (Marques et al. 2021).

All invitees were organized according to professional affiliation and job titles into different focus groups around the following five spheres of influence, or areas where wilderness managers have some ability to influence outcomes (Figure 1). These included individuals working in the sector; organizational, both federal land management agencies and nonprofit partners; with wilderness-adjacent communities; and with visitors and prospective visitors.

We asked invitees to browse five virtual DEI resources prior to the session to consider which aspects they thought were effective in delivering tools to improve DEI awareness. To maximize participation, the researchers sent a reminder email to each potential attendee two days before the session. Ultimately, 22 participants attended (Table 2), representing the following organization types:

Organizational representation was skewed toward Forest Service employees and nonprofit partners given the role they played in funding, organizing, developing, and delivering content for the NWSI. We consider methodological limitations in the discussion, below.

Focus Group Discussions

Overall, the session lasted 80 minutes. During the first 15 minutes, we explained the purpose of the session; key definitions on diversity, equity, and inclusion; and spheres of influence. The breakout sessions lasted approximately 60 minutes and were moderated and transcribed by the RAs. Since the researchers did not record sessions, RAs transcribed conversations as close to word-for-word as possible. The breakout sessions closed after 60 minutes, which allowed five minutes for close-out discussion.

Data Analysis

Transcripts were analyzed using a three-step approach. First, transcripts were uploaded in NVivo software. We used an in-vivo coding approach whereby each sentence of each transcript was labeled according to the main idea communicated (Glaser and Strauss 1967). In this way,

each code came directly from the transcripts, line-by-line where possible, generating a list of 169 codes in total. For example, a federal government participant explained that:

based on the [diversity training] session and some of the conversations that came out of that, efforts are certainly flat. Holy cow! The comments coming out of disrespectful employees... and we're trying to promote an agency culture of respect and honoring each other. And people should be free to speak freely. We're not very respectful to anyone.

This statement was segmented into five codes, described in Table 3 below.

Segment of statement	In-vivo code
Based on the [diversity training] session and some of the conversations that came out of that, efforts are certainly flat.	A training session showed that efforts are flat.
Holy cow! The comments coming out of disrespectful employees...and we're trying to promote an agency culture of respect and honoring each other.	Agency trying to promote respect still has disrespectful employees.
And people should be free to speak freely.	People should be free to speak freely.
We're not very respectful to anyone.	The agency still has employees who are not very respectful.

Table 3 – Statement from the transcript as coded in-vivo.

Next, all codes were organized into 15 themes, based on what the interpretation of intention was behind each code (Charmaz 2006). For instance, the codes for the above statement were grouped into the theme “cultural values and biases.” Using an approach to qualitative data analysis as part science and part art, these themes were reorganized and condensed into the three key, interrelated findings presented in this write-up (Figure 2) (Bernard 2006; Wolcott 2005). In this way, the findings highlight not only the utility and limitations of a DEI toolbox for wilderness but also the potentially transformative role of partnerships and culture in supporting a more inclusive and diverse wilderness idea. The write-up was shared with all participants and RAs to ensure accuracy of data and interpretation and to ensure that participants felt that the key themes reflect their own understanding of the focus group discussions (Candela 2019).

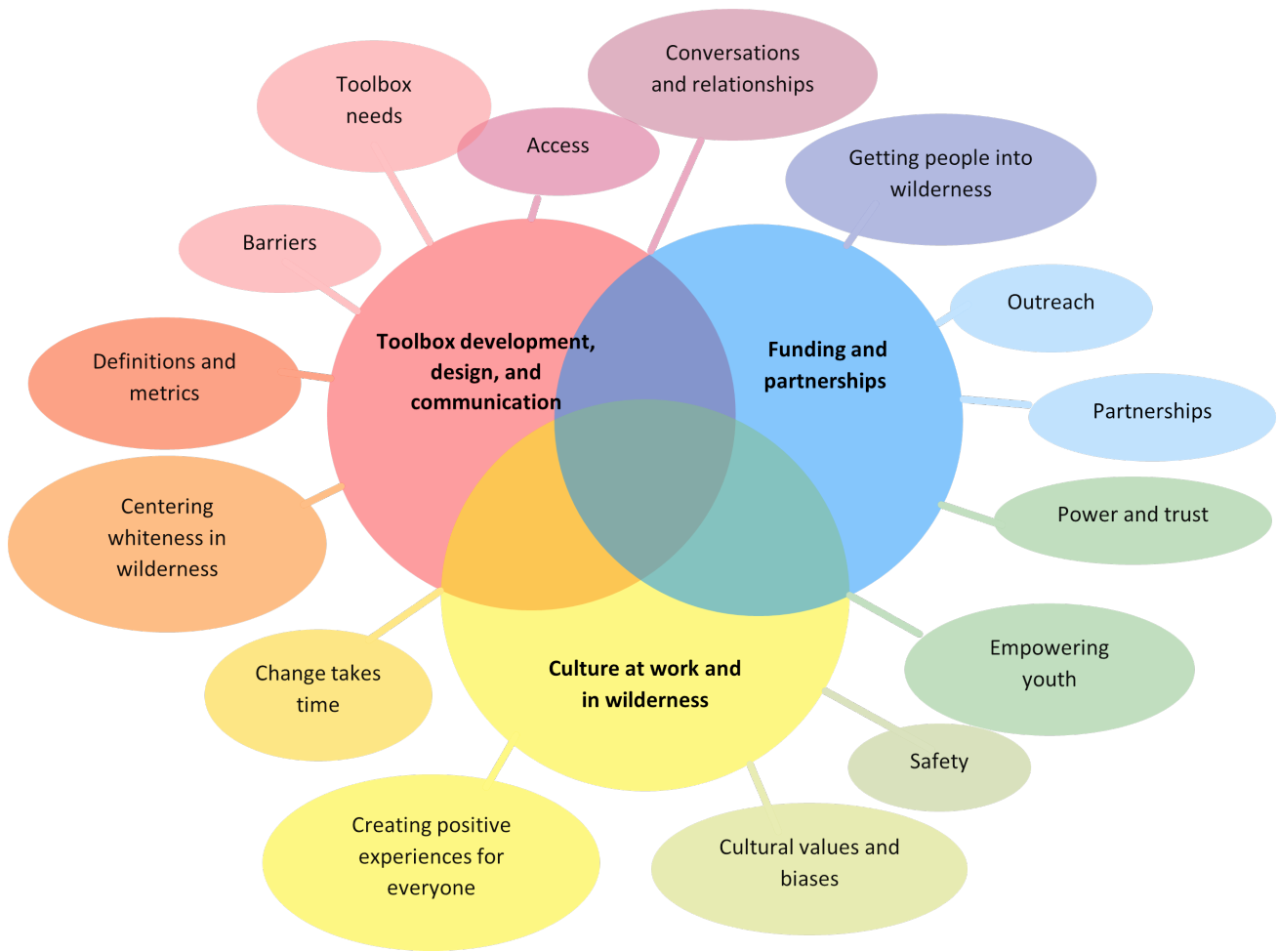


Figure 2 – The 15 identified themes in relationship to interconnected findings.

Findings

Toolbox Development, Design, and Communication

Participants had varied perceptions of the utility of a toolbox for DEI in wilderness. Some participants noted that toolboxes often overwhelm with their amount of information and when they lack a roadmap for moving ideas into practice; additionally, some participants failed to see how a toolbox could help address DEI issues in wilderness. One participant noted that a DEI toolbox risked creating another echo chamber for wilderness managers who are inclined to engage in this work already. Some participants noted leadership support and agency buy-in as critical to developing a toolbox and ensuring it leads to change. Some key recommendations from participants for an interagency toolbox included

- *Using graphics and easy-to-digest information rather than long narratives*
- *Integrating extensive information on the website while linking to limited hand-picked resources (e.g., the TREC toolkit, US Census Bureau)*
- *Ensuring equal access, which improves relevancy of and representation on public lands*
- *Highlighting case studies that illustrate step-by-step processes improving DEI outcomes*
- *Offering both online and in-person opportunities to agencies and partners, in addition to information and resources for staff and partners at various phases of the DEI journey*
- *Considering cultural diversity and linguistic inclusivity, especially for underserved wilderness-adjacent communities. Examples include asking how diverse groups may differently interact with wilderness and posting signs in different languages.*

Some participants noted that they struggle to communicate why equity work is important for wilderness – something that could be helped by a toolbox – while others noted that DEI-related goals for wilderness have yet to be clearly articulated at both national and local levels. One participant shared that, although this work takes time and is slow-moving, metrics could help establish accountability and track progress:

A lot of these things have been occurring in relatively recent history. It takes time to see. And because it takes time, I think really important aspects are that if we have higher initiatives or training or whatever, that there's metrics to track how many people are showing up for those trainings, how many people were hired. Metrics to track success over time and also to have a definition of what success is supposed to look like attached to those metrics so that over time we can say if we're successful or not, or if it's just kind of languishing.

Several participants mentioned the need for articulating common goals for DEI work, though also noted that exact metrics would vary from place to place based on demographics. One participant commented that diversity includes age, gender, and more, which complicates identifying appropriate metrics. Additionally, one participant said, "It's important to listen and advocate for a more nuanced take," reflecting that quantifiable metrics are strengthened by qualitative

The USDA Forest Service Southern Region and key partner organizations that work together for the stewardship of wilderness and public lands through education, outreach, hiring, and more, embarked on a series of introductory webinars for all followed by a focused, small group training that resulted in the development of a Justice, Diversity, Equity, and Inclusion (JEDI) Cohort Action Plan. This collaboration was built from long-term relationships between organizations, and was initiated with a partnership with between the Southern Region and the Southern Appalachian Wilderness Stewards (SAWS). This case study exemplifies how a land management agency can work with partners to improve equitable process and outcomes, reflected in a two-step process that started with a process-oriented training on DEI and led to the creation of the JEDI Cohort Action Plan, which provides a roadmap for the Forest Service and partners to implement lessons learned from the training.

The purpose of the cohort training was to do a deep-dive into challenges, and opportunities around issues of diversity, equity, inclusion, and access in conservation, wilderness, and public lands, more generally. The Avarna group, a consulting firm focused on improving justice, equity, diversity, and inclusion in the outdoor and environmental sector, was funded through the Southern Region to facilitate five learning sessions with around fifteen representatives of the Forest Service and partners. Partner organizations included: American Conservation Experience, Appalachian Trail Conservancy, Conservation Legacy, Green Youth Foundation, Hispanic Access Foundation, Muddy Sneakers, and SAWS. The learning sessions occurred virtually over the course of three months.

The initial concept was intended to offer more than training opportunities. The Avarna group facilitated the creation of the JEDI Cohort Action Plan, intended to be used in both the short and long term across the region. The Action Plan includes four key components, including: Collective values, collective vision, collective commitment, and commitments and actions. Collective values describes the underpinnings of what the organizations collectively believe; Collective vision examines what the organizations dream of for “what we dream” and sets goals for a transformed world; Collective commitment establishes the rules of engagement and identifies the process for how the organizations will work to reach the collective vision; and the Commitments and actions outline a roadmap to action, detailing the action, a timeline, and lead and supporting organizations, and laying out a path to impact and accountability.

Though this JEDI Cohort Action Plan is still in draft form, final collaborative working sessions will move the draft through an adopted Action Plan, supporting the institutional infrastructure required to gain momentum towards real-world DEI impacts.

Figure 3 – Case study example of use of funded partnerships for creating an action plan in the Forest Service Southern Region.

approaches tracking inclusion and belonging in wilderness.

To ensure that a DEI toolbox captures diverse and holistic goals, one participant emphasized the importance of co-creating with partners to amplify those already advancing DEI work. Several participants rhetorically asked, “Who’s involved in the conversation?” and, “Who’s at the table designing these programs?” further emphasizing the need for multiple perspectives. Another participant elaborated that any DEI effort must be coupled with a genuine power transfer, saying, “Change requires challenging the power balance. It’s hard for people to let go of. There’s lots of gatekeeping, and getting past that is hard.” Participants generally supported building a toolbox for DEI in wilderness but wanted to ensure high-level administrative support for the effort, careful articulation of goals and metrics, and collaboration with diverse partners

with proven DEI impact. Together, these factors could ensure a quality product reflective and inclusive of a diverse America.

Funding and Partnerships

Many participants noted the shortcomings of a toolbox alone and emphasized the role of adequate funding and partnerships to connect the toolbox to on-the-ground outcomes. First, participants spoke to the need to adequately fund wider DEI efforts in tandem with a DEI toolbox across all wilderness managing agencies. One participant suggested that agencies:

take a hard look at your policies and see what's missing there. Do you have inconsistent policies from one department to another? And really are you backing it up with funding for it? Because you can have all the policies in the world that you want, but if there's not funding to implement those policies, you fall short.

Participants mentioned the role of funding to advance innovations in DEI-related work. Innovations mentioned included programs to help reduce costs for outdoor gear or funding a gear library; offering free entrance permits for residents at a community library; providing grants to reduce transportation costs to bring underserved community members to wilderness areas, allowing them to connect to place; and supporting empowering outreach and education programming, especially for youth. Several participants noted the limits of outreach work; one participant explained, "I think that outreach probably doesn't go far enough because I, personally as a visitor of these areas, have never even experienced that outreach and I'm actively seeking it out." Intentional and targeted outreach efforts could be more impactful than offering general information for visitors.

Many participants emphasized that leaning into partnerships – and allocating additional funding to do so – could help land-management agencies learn from DEI experts (see Figure 3). For example, one Forest Service employee suggested that

the Forest Service should invest in paying people to train others on DEI. Giving a qualified person this specific role. They could analyze problems in the Forest Service and better represent the public. They could train the district. It should be someone that is outside the office and actually knowledgeable on DEI.

Participants believed that staff turnover compounds limited DEI expertise within federal land management agencies and prevents relationship building with communities. Instead, many participants recommended that land management agencies lean into partnerships with local organizations and groups that have established relationships and trust with underserved communities. As one participant elaborated,

I know that partnerships are really important because, you know, you connect with people. Not only with people who are already interested in the outdoors, but people who just don't really know about it and just start with maybe not being as, I don't know, excited about it

originally just because they haven't really been exposed to it. So that trust with a partner like a church group or something and, you know, if they bring it up, they already have those relationships with those groups.

Participants from the nonprofit sector expressed the difficulties they face securing funds for DEI work in wilderness, in particular given that donors do not always understand the value of DEI work. One nonprofit participant explained, "We lean on volunteers a lot, who lack the capacity to focus on this topic. We have to get funding and donors, and it's the first thing to fall off the radar, especially with smaller nonprofits." Given this challenge, federal funding could help close financial gaps and ensure DEI work in wilderness remains prioritized.

Culture at Work and in Wilderness

Many participants emphasized workforce culture and a lack of diversity as barriers to improving DEI outcomes in wilderness. Additionally, they noted that people's values of and experiences in wilderness are shaped by the often-exclusionary history of the wilderness movement. Specifically, some participants expressed that wilderness workforce culture hampers DEI efforts. Wilderness workforce culture often fails to prioritize DEI efforts, and agencies and partners generally lack diversity within their ranks. For instance, one participant who spent her career with the Forest Service expressed, "I haven't had local or regional opportunities to discuss DEI. It's important that the agency gets with the times because it is disappointing to work with close-minded individuals and makes me feel like I can't contribute much to the conversation right now." A few participants mentioned offensive, sometimes anonymous, comments made during training or awards programs for federal employees and partners. One participant expressed tension between DEI work and freedom of speech, while another emphasized problems with mandatory DEI trainings for the same reason.

Yet participants noted that workforce-related issues are linked with wider wilderness-related cultural issues. For example, one nonprofit representative explained,

The chair of our DEI committee is an Indigenous woman that is lighting up and educating the board to use educational programs, webinars, and interpretive hikes to let people know about how the Indigenous people looked over the land very well for a very long time. It is walking the walk as opposed to talking the talk that will help the public and government.

Other participants similarly shared that DEI efforts could benefit from diverse hiring practices. Diverse hiring can lead to improved representation and voice, especially as federal initiatives increasingly use Indigenous knowledge to inform land and resource management. As one nonprofit participant asked, "Who are we as a nonprofit run by non-Indigenous people to come in and say this is how that land should be managed?" Overall, many participants expressed concern about the history of wilderness and how it influences current wilderness values and experiences – though participants differed about what this means in practice. For example, one participant shared the importance of "showing what Indigenous people have done successfully

in the wilderness and making it clear that their views are based on different ethnic values than ours, to create an awareness that we should be more inclusive and reach out to groups that for whatever reasons don't use the wilderness." In contrast, another participant expressed concern about overemphasizing the history of wilderness, suggesting a toolbox "maybe not [include] the history of the wilderness because it's the history of racism against Indigenous people because rubbing people's noses in that doesn't make friends and influence people very well." Overall, many participants believed that it is critical to be forthcoming with that history to recognize how internal bias, racism, and sexism shaped perceptions and values of wilderness today.

Participants recognized how historical perceptions and values have influenced modern thought and have barred underserved people from experiencing wilderness. For instance, one participant said, "There's a lot of legitimate reasons why there's been this narrative told that we should be afraid of loneliness in the woods, and I think with that it's like we have to do a lot of dismantling of those fears through education to make these places acceptable." Another participant explained, "It is important to acknowledge the internal bias about safety that some people have." Issues of safety in relation to other people in wilderness were mentioned in three focus groups, with participants interested in addressing both perceived and real personal safety issues for various groups to ensure wilderness can be freely enjoyed by all.

Discussion

Through targeted discussions with federal wilderness employees and key partners in wilderness delivery, we found vast DEI-related needs in this community. A DEI toolbox for wilderness could help articulate the value of DEI in wilderness – for example, by offering case studies and guiding development of metrics to track progress – and can offer a space to share best practices and lessons learned. These findings echo the wider body of literature on DEI trainings that emphasize the need for metrics and accountability to understand, evaluate, and ensure progress toward goals (e.g., Davenport et al. 2022; Taylor et al. 2023b). Yet this may be challenging given vast biological, ecological, cultural, historical, and social differences across the National Wilderness Preservation System. For example, wilderness in Alaska has different opportunities and challenges, and likely requires a different set of approaches and tools from wilderness in Puerto Rico. Metrics and desired outcomes that incorporate a nested approach could allow for locally, regionally, and nationally relevant metrics to help track toward progress (Hinton and Lambert 2022).

Furthermore, through collaboration with external partners, wilderness managers can develop meaningful and representative goals and metrics. This could also create an opportunity to develop a toolbox that focuses on approaches, processes, and resources rather than specific outcomes. Given the differences across geographies and contexts, a toolbox alone cannot address all the challenges and needs of the wilderness community. Through an emphasis on approaches, processes, and

resources – for example, the case study from figure 3 – a toolbox can be more adaptable across diverse wilderness contexts and communities. Prior research has shown the value of providing highly motivated, socially connected, and well-respected individuals or groups with tools and opportunities to initiate equitable change within their network (Forscher et al. 2017; Paluck et al. 2016). Our findings similarly emphasize that strategic partnerships backed by funding might help facilitate important conversations and change at the ground level. In this way, a more collaborative approach through funded partnerships can bolster institutional change (Bidwell and Ryan 2006).

A DEI toolbox that engages a diverse group of partners and end users, especially from Tribes, other underserved communities, and local community groups, could further bolster federal commitments already underway to make wilderness more representative of the diversity of America.


We also learned that, for some wilderness managers, the culture at work and the wider culture of wilderness can feel marginalizing to diverse ways of relating to nature. This finding aligns with other research on DEI that emphasizes the importance of shifting culture to impact bias (Glass 2023; Romero et al. 2022). Specifically, participants expressed that workforce culture sometimes hinders hiring and retaining employees with new points of view and relationships with the land – the very people who can help create change from the inside. Similarly, the perception and reality of safety issues for underserved people may hinder attempts to diversify visitor demographics and people's relationships to wilderness. Federal managers are trialing creative ways to connect with, learn from, and elevate leaders and groups from underserved communities, but could benefit from access to systematic approaches to share best practices, like a toolbox, and support to monitor progress across the wilderness system.

Our findings are limited in two ways. First, the RAs supporting this work were not necessarily experts in wilderness, DEI, or social science research. For many, this process was their first time engaging in focus group research within the context of wilderness, but it should be noted that their engagement was intentional and a part of the commitment to empower agents of change. Additionally, the heavy sampling of participants from the US Forest Service and nonprofit sector employees may have influenced what we learned about wilderness and DEI-related efforts and challenges across agencies and partners. Care should be taken to ensure that results are interpreted as an exploratory first step to understand what are potentially impactful and appropriate measures to improve DEI outcomes in wilderness through shared tools. Future work could ben-

efit from additional, concerted conversations to better understand the scale of the challenges and the possible benefits and limitations of DEI tools and efforts across the National Wilderness Preservation System.

Conclusion

Federal wilderness policy and practice have largely been shaped by an elite minority – but how we perceive and connect with wilderness is culturally relative. Therefore, efforts across federal land management agencies diversifying the workforce, advancing comanagement, and redressing cultural bias in wilderness programming are already moving the needle toward more equitable inclusion of diverse voices. A DEI toolbox that engages a diverse group of partners and end users, especially from Tribes, other underserved communities, and local community groups, could further bolster federal commitments already underway to make wilderness more representative of the diversity of America.

Critically, a DEI toolbox, alone, is likely to have limited impact but could offer important opportunities for engagement with diverse partners. Any effort to develop DEI tools or trainings would benefit from thoughtful collaboration with the needs and requests of wilderness managing professionals, impacted communities, and leaders of change to maximize the utility of efforts and impact. DEI efforts could additionally benefit from greater understanding of processes for the development of metrics and goals in a way that is both simple to implement but does not reduce the many intangible facets of DEI and culture to a number. Processes for developing any DEI toolbox or trainings that not only engage but also empower local users may improve implementation and benefit outcomes on the ground to ensure that all people can see themselves in wilderness. 

Acknowledgements

The authors thank the focus group participants who generously shared their knowledge and experiences, as well as the National Wilderness Skills Institute for the opportunity to connect with practitioners from across the country. A special thanks to Eric Sandeno, Dusty Vaughn, Timothy Fisher and the Interagency Wilderness Steering Committee for supporting this effort. This work was supported in part by the USDA Forest Service, Rocky Mountain Research Station, Aldo Leopold Wilderness Research Institute and the Arthur Carhart National Wilderness Training Center. The perspectives in this publication are those of the authors and should not be construed to represent any official USDA or US Government determination or policy.

LAUREN REDMORE is a research social scientist with the USDA Forest Service Aldo Leopold Wilderness Research Institute where she uses her training in environmental anthropology to better understand how to improve diversity, equity, and inclusion in wilderness and wildlands; email:lauren.redmore@usda.gov

KIMM FOX-MIDDLETON is the wilderness and outreach specialist at the Arthur Carhart National Wilderness Training Center. She works to expand the wilderness narrative to be inclusive and relevant through interpretation, education, outreach, and engagement; email:kimm_fox-middleton@fws.gov

KEREN-HAPPUCH CRUM creates equity and environmental justice maps for the US Forest Service. She lives in Oregon where she shares her love of exploring the outdoors with her family.

MARGARET GREGORY works as a science writer-editor for the USDA Forest Service Research and Development branch, where she translates complex science into accessible terms; email:Margaret.gregory@usda.gov

CASSIDY MOTAHARI is a freelance videographer/editor and an incoming MA student at the University of Montana's Environmental Science and Natural Resource Journalism program.

MARY POWERS is a GIS specialist with the Spatial Analysis for Social Sciences program within the Geospatial Technology & Applications Center where she uses her expertise in GIS to develop environmental justice maps to better predict where potentially underserved communities exist at a local scale to help inform land management decisions around environmental justice.

RUBY SAINZ ARMENDARIZ is a partnership coordinator with the USDA Forest Service where she works with the National Partnership Office to engage more diverse audiences in internship programs for youth, young adults, and emerging professionals.

AMANDA GRACE SANTOS is an archaeologist for the Santa Fe National Forest and studies the physical manifestations of community during transitional periods. She earned her master's in archaeology from Boston University; email:agsantos@att.net

LEA SCHRAM von HAUPT currently works as a NEPA planner for the Coronado National Forest, where she manages teams of resource specialists to analyze and mitigate the environmental impacts of proposed activities on public land.

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DALLE 2 AI-generated "oil painting" of a river rafter holding up her successfully acquired river permit. (DALLE 2 / OpenAI)

A Scoping Literature Review of Fairness and Equity Engagement in US River Recreation Allocation Research

by **KELSEY E. PHILLIPS** and **WILLIAM RICE**

PEER REVIEWED

ABSTRACT River recreation in protected areas throughout the United States is increasing at a rapid pace, thus increasing stresses on river environments and the agencies that manage them. River recreation use allocation systems have been implemented, often in the form of permitting systems, to reduce impacts and distribute use among recreationists. However, these allocation systems are typically studied in the context of user preference, manager preference, and economic and policy considerations, thus it remains unclear to what degree these studies have addressed the concepts of equity and fairness within these systems. This scoping literature review explores how research on river permit allocation systems in the US has engaged with the concepts of equity and fairness to visualize gaps in the literature and identify where future work must be done in order to ensure equitable allocation in these river recreation areas.

Keywords: River recreation, permit, lottery, allocation, equity, fairness, management



Kelsey E. Phillips



William Rice

In his influential essay "Shooting the Wild Colorado," then-secretary of interior Stewart Udall began, "Every individual – and every family – should get to know at least one river" (1970, p. 83). Months later, President Lyndon B. Johnson would echo Udall's words in his remarks upon signing the Wild and Scenic Rivers Act of 1968: "Secretary Udall...said that every individual and every family should get to know at least one river. So today we are initiating a new national policy which will enable more Americans to get to know more rivers."

The passage of the Wild and Scenic Rivers Act codified the nation's appreciation of free-flowing rivers and streams, acknowledging the importance of preserving rivers with "scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values" (Wild and Scenic Rivers Act 1968) at a time when rivers were frequently being dammed, polluted, and developed. However, a burgeoning sector of the American public soon followed Udall and Johnson's call to discover their rivers, in this case via recreation. Steps were thus taken to limit use as a means of reducing impacts on visitor experience and the environments that support those experiences. River recreation managers in certain areas began to require use allocation in the early 1970s, when river trips on the Colorado River in the Grand Canyon exploded in use; more than 1,000 people floated the Colorado in 1966, versus 16,000 in 1972 (Nash 1977).

Since the beginning of this early period of federal use allocation, researchers have studied varying techniques along with the recreational user and river manager perceptions of these techniques. The actions falling under the concept of allocation are broken into two components: allotment and rationing (McCool and Utter 1981b). Allotment concerns the distribution of use between private and commercial boaters and apportions size allotments to each group. Common allotment techniques studied are historical use, even-split, even-pool, percentage of disappointment, and treat everyone the same (McCool and Utter 1981b). Rationing is defined as the distribution of individual use opportunities, and frequent rationing techniques studied are lottery, reservation, merit, pricing, and queuing (McCool and Utter

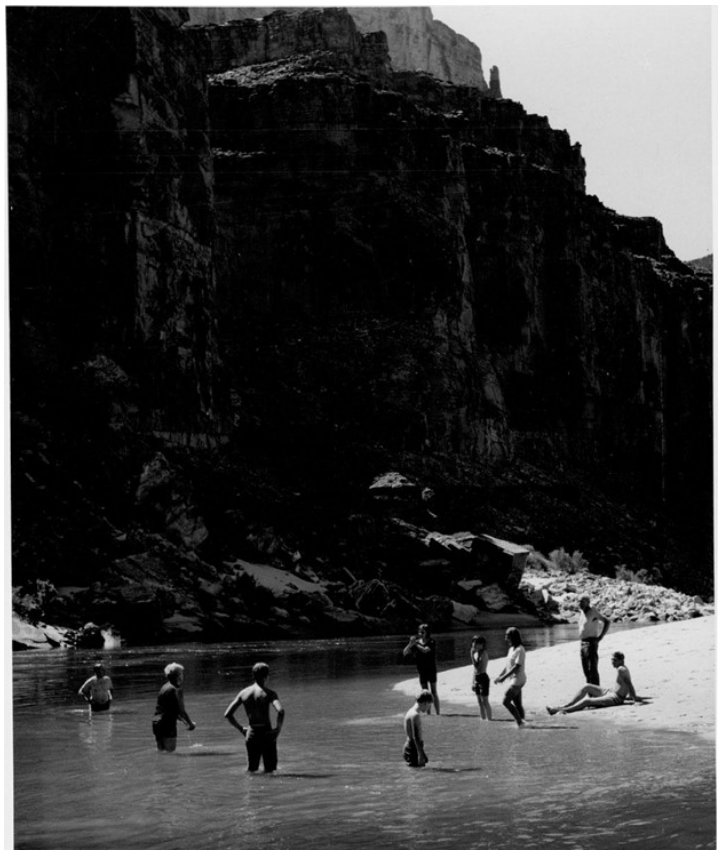


Figure 1 - Stewart Udall's family during a rafting trip down the Grand Canyon of the Colorado River, 1967. It is documented that this trip helped motivate the passage of the Wild and Scenic Rivers Act of 1968. (Grand Canyon National Park Archives)

1981b; Shelby 1981). Importantly, as noted by McCool and Utter (1981b), within the commercial sector, individual use is not rationed by the agency directly but rather is rationed by outfitters who use their allotted permits by selling river trips to commercial boaters (i.e., through a pricing system). In addition to these combinations of allotment and rationing techniques, researchers have addressed a complex multitude of other factors such as legality, public acceptance, and administrative feasibility (Wikle 1991). This particular study suggests that the public acceptance of a river permit rationing system is critical to management policy implementation, and many of the studies in this present scoping review address the issue of public acceptance.

Distributive Justice and Equity

In addition to public acceptance, administrative feasibility, and policy alignment, the issue of distributive justice is a crucial component of this multifaceted recreation issue (Shelby 1981). Distributive justice is defined as an ideal that involves several competing social goals, including equality, equity, need, and efficiency (Homans 1961). In the context of recreation use allocation, studies have discussed this ideal in different ways. For example, one study explored how equality may provide equal shares (or chance to obtain) of a commodity but may not always be "fair" due to some users needing or deserving more, which they define as the concept of equity (Shelby et al. 1989b). Need is then described as recognizing that individuals or groups may have requirements for normal functioning that are indispensable in specific situations, and efficiency is

defined as maximizing a resource by putting it to its most highly valued use. Other studies have discussed this ideal in the context of high-quality outdoor recreation opportunities and how these can be equitably distributed (Floyd and Johnson 2002). The authors note that economic efficiency could potentially be maximized by using one reservation system for all park area access opportunities, but that this would "have clear implications for environmental justice, particularly distributive justice" (Floyd and Johnson 2002, p. 70).

Importantly, the definition of equity in the context of the theory of distributive justice is not necessarily the same as it is utilized in the context of "diversity, equity, and inclusion (DEI)." The differences between equity as defined in the context of DEI and that which we use in this scoping literature review (relying on the definition derived from the distributive justice lens) is a crucial aspect of this conversation that merits future work in this area. In 2021, the federal government prioritized "provid[ing] resources and opportunities to strengthen and advance diversity, equity, inclusion, and accessibility" and called upon executive departments and agencies to "redress inequities in their policies and programs that serve as barriers to equal opportunity" (Executive Order 13985). This charge provides a central motivation for the present research, as many of the river recreation use allocation systems used in the US today were designed decades ago when equity may not have been a decision-making factor. Additionally, the definition of "equity" has changed conceptually since many of these studies were conducted, and therefore

more research is critically needed to include the modern conceptualization of the term in the current context. In relation, our primary research questions: how has river-use allocation research engaged with the concepts of fairness and equity and, subsequently, what actions are needed to inform a decision-making process or framework that incorporates these concepts?

Methods

Scoping studies aim to explore the key concepts within a given research area that have not been previously reviewed in-depth, as opposed to a systematic review – which may be more focused. For the purposes of this river recreation allocation review, we aim to identify research gaps in the existing literature (inclusive of peer-reviewed literature, government reports, conference proceedings, and other “gray” literature), as well as summarize the research findings of the studies included. To do so, we used an established five-step scoping review methodology: (1) identify research question, (2) identify relevant studies, (3) study selection, (4) chart data, and (5) collate, summarize, and publish results (Arksey and O’Malley 2005).

Following the identification of our research question, in our second step, we used a Boolean-based keyword inquiry to search four platforms: Google Scholar, Web of Science, ProQuest, and Ebsco Host. The same Boolean-based keyword inquiries were utilized for each platform (Table 1). Research items (peer-reviewed or published as technical reports) that met this keyword inquiry were included in this scoping literature review if they were based within US river recreation settings, administered by a federal public land management agency, and empirically studied river recreation allocation using quantitative or qualitative methods. Third, if studies met these inclusion criteria, each was coded based on whether the concepts of equity or fairness were engaged in a discussion-based way or engaged within the study design directly. To be considered “engaged” in this review of the literature, the words “equity” or “fairness” had to be used directly and were coded based on where in the study these words were engaged (study design or discussion). “Equity” and “fairness” are defined in this study based on the concept of distributive justice, where “equity” is defined as the balance of an individuals’ contribution to a system with the outcomes for the individual, which parallels with the concept of fairness more generally (Homans 1961). Fourth, studies that met the inclusion criteria were analyzed and coded using a priori coding methodology based on whether equity and fairness were engaged, and if so, if this

<p>“river recreation”</p>	<p>“permit” “allocation” “management”</p>	<p>“equity” “fairness”</p>
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Table 1 - Scoping literature river keywords used for Boolean-based keyword inquiries (example: “river recreation” AND [“permit” OR “allocation” OR “management”] AND [“equity” OR “fairness”]).

engagement occurred in the introduction or discussion of the study, or within the study design itself. The final list of research items that met inclusion criteria was sent to two experts in the field, one a foundational scholar and the other a practicing scholar, to review for exhaustiveness. Fifth, and finally, we summarize our results using a narrative synthesis approach (Mays and Pope 2020).

Results

Due to the very limited scope of this particular field of research, our Boolean-based keyword inquiry provided a large number of results that were not relevant to this study and were therefore removed. Of the 10 research items returned by our Boolean-based keyword inquiry that met our inclusion criteria, five engaged equity or fairness in a noncentral way, i.e., equity and/or fairness were discussed in the introduction or discussion sections but were not central to the design or purpose of the research. Five others centrally engaged with themes of equity and/or fairness in their study design. Two external experts in the field of river recreation use allocation reviewed the list and confirmed its exhaustiveness. A list of these studies can be seen in Table 2.

Paper	Equity/fairness central to study design?
Chouinard and Yoder (2004)	Central
Loomis, J. B. (1980)	Central
Schomaker and Leatherberry (1983)	Central
Shelby et al. (1982)	Central
Shelby et al. (1989b)	Central
McCool and Utter (1981b)	Not central
Shelby et al. (1989a)	Not central
Siderelis and Moore (2006)	Not central
Stankey (1977)	Not central
Wikle (1991)	Not central

Table 2 – Articles meeting inclusion criteria.



Figure 2 – The Middle Fork of the Salmon River has been the focus of multiple research projects focused on river recreation rationing. (Brad Pearson/Public Domain)

Equity/Fairness Not Centrally Engaged

We provide limited results for research items that did not centrally engage with equity or fairness. That research begins, chronologically, with Stankey (1977), who outlined the lottery system used on the Middle Fork of the Salmon River in Idaho as being founded on the assumptions that (1) the US Forest Service (USFS) seeks to maintain the functioning of the outfitting industry, (2) the permit system chosen should be fair and equitable, and (3) should fit within the agency's budget and personnel limitations. Despite equity and fairness being discussed in Stankey's (1977) workshop proceeding, most of the discussion centered around differences between commercial outfitters and private party permit accessibility under the Middle Fork of the Salmon River system, specifically. Additionally, Stankey (1977) recommended managing river recreation allocation on a regional level to deliver diverse experiences to meet multiple users' needs and more easily address equity concerns. He noted, however, that "any rationing system discriminates against certain people; in fact, it is this discriminatory feature that makes rationing work" (p. 400).

Stankey (1977) was quickly followed by McCool and Utter (1981b), who twice mentioned "fairness" in the context of the allotment systems. These are both brief discussions of respondents' perceptions of the 50-50 split system (between commercial and noncommercial boaters on the Middle Fork of the Salmon). Nowhere did the authors discuss or engage with the concept of equity, and instead focused on the preferences of different river users on this specific river at this

particular time in order to inform management agencies of what these users would prefer to see in a permit allocation system. Shelby et al. (1989a) applied a distributive justice framework in a discussion of user income, free time, proximity to the launch site, and perceptions of merit as possible factors in floaters' perceptions of allocation systems; however, this discussion centered more around users' perceptions of their own chance at obtaining a permit under each system rather than whether each allocation system allows for equitable distribution among these factors. Wikle (1991) explored different river permit rationing system preferences between river users and managers. In this study, lottery systems were discussed as being "eminently fair" and flexible enough for managers to adjust for fairness or efficiency goals. First-come/first-served was noted to favor those groups with fewer time constraints such as young and elderly users, and pricing systems were noted to discriminate against those unable to pay, despite being the most economically efficient system to utilize from a management perspective. Merit systems would discriminate against those unable or unwilling to gain the necessary experience and training and would be difficult for managers to determine what is "appropriate" behavior. Importantly, while Wikle (1991) discussed fairness and discrimination as it pertains to river permit rationing methods in the introduction of each permitting approach, the author did not discuss or engage with this topic beyond the introduction of the paper. Finally, Siderelis and Moore (2006) applied an economic approach to explore hypothetical modifications in per-

mitting procedures and the effects on whitewater boating behavior. While this paper considered user preference and included household income data in some of their modeling, equity and fairness of each permitting system was not discussed.

Equity/Fairness Engaged in Study Design

Aside from partial engagement with fairness or equity in river recreation allocation, other studies more fully engaged with these concepts directly in their study design. Shelby et al. (1982) explored the allocation preferences of backpackers and river runners, using a questionnaire to investigate allocation method preferences in three different study areas in Oregon. The authors discussed the merits of varying allocation systems, mentioning both equity and social efficiency in these discussions. Queuing (waiting in line) was discussed in the context of pricing, where time rather than money is traded for a specific recreation resource opportunity. The authors mentioned that queuing discriminates against users who do not live close to the backcountry area in question or value their time more than those users with fewer time constraints. Similarly, they discussed the merit-based allocation system as increasing social efficiency due to the time, effort, and money spent acquiring the skills required to obtain a permit (thereby placing a high value on the commodity) but also noted that this requires the system to specify who is "worthy" of this permit. Perceived fairness was measured directly via user questionnaires, and the authors discussed equity and fairness in the context of social efficiency as well. In the context of fairness, this study found that users favored pricing and reservation systems, and that river runners favored reservations more than backpackers. River runners also perceived lotteries to be fairer than queuing as compared to backpackers.

Another early paper by Loomis (1980) examined the equity versus efficiency issues that emerge when rationing the ecologically based optimal carrying capacity of river recreation use, employing a demand-for-use curve to model the intersection of a marginal ecological damage function derived from visitor use impacts. This study used an economic approach to estimate the demand function of optimal capacity and estimated the equity-efficiency trade-offs for both price and lottery rationing systems on the Colorado River in Westwater Canyon. This was done to explore optimal carrying capacity of river recreation use rationing when environmental damage is used instead of desire for solitude as the binding constraint. The author described allocation systems as maximizing efficiency to society from river recreation use based on carrying capacity and noted a "companion goal" of equity. This study described five allocation systems and how each of these meet equity and efficiency definitions, noting that each system requires users to give up a specific resource (whether it be time, money, etc.) to receive a river permit. This study focused on the pricing system, which was described as more efficient, and the lottery system, which was described as more equitable. Ultimately, a ratio of equity (an "equity index") for rationing systems was proposed, where managers could assess the cost of sacrificing efficiency to gain equity in specific allocation systems.

Schomaker and Leatherberry (1983) also investigated the concept of equity centrally by

exploring whether permit reservation systems discriminate against any identifiable group of the population by studying floaters on 26 river stretches in the US. In this study, fairness and equity were discussed in the context of river recreation being a public resource, thus managers must provide an equal opportunity to float the river to all users. From this perspective, first-come/first-served reservation systems were described as favoring those who are able to plan far in advance and contrasted this with lottery systems that give all applicants an equal chance to float a river. Ultimately, this study concluded that river recreation reservation systems do not discriminate against an identifiable group on these river segments but noted that if managers are concerned about this possibility, adjusted reservation systems that allow for allotted drop-in use could potentially be utilized. This paper engaged with the concept of equity on a direct level, aiming to measure potential inequities involved in river recreation reservation systems across the nation. However, the term "inequity" as it is used in this paper constrains itself to the river-running population, as most studies mentioned in this scoping literature review do as well.

Perceived fairness in the context of pragmatism was investigated by Shelby et al. (1989b) in a study of river runners on the Snake River in Hells Canyon for different allocation alternatives, finding that willingness to try an alternative was pragmatic and more strongly associated with perceived chance of success than with perceived fairness of the alternative. Acceptability, however, was found to be an idealistic evaluation for users and was more

strongly associated with fairness, discussed in the context of distributive justice. The authors developed a model that describes the relationships between user perceptions and evaluations of the five allocation alternatives studied, whether these were perceived as giving users a chance of success and whether they perceived the system as fair, and whether the alternatives were acceptable. While multiple conclusions can be drawn from the model developed in this study, the implication most crucial to managers developing new allocation systems is that users are most willing to try a system that will get results for them specifically, but also accept any system that they perceive to be fair, thus having both idealistic and pragmatic components.

Viewing this issue from a DEI lens is an important step in determining the accessibility of these river recreation settings and the allocation techniques utilized within them. Identifying the gaps in the literature as they pertain to equity and fairness (such as spillover effects, displacement, and ecological and social impacts) will be critical for river recreation managers to implement permit allocation systems that are acceptable and equitable to all potential users.

A final group took an economic approach to studying permit allocation, this time exploring the economic theory that allowing permit

trading in whitewater rafting lotteries would increase welfare among rafters due to the differential valuation of rafting trips among users (Chouinard and Yoder 2004). The authors explored several different market restriction options, using the Four Rivers Lottery system in place by the USFS in Idaho, in which permits are nontransferable. The authors discussed that while agencies have often considered alternative permit allocation schedules, such as rationing permits by price, these are rarely used as the primary method due to the inequity associated with pricing systems, as users with higher incomes are more likely to receive a permit. Chouinard and Yoder (2004) ultimately aimed to investigate this market restriction and whether it should be imposed from an economic standpoint. The authors discussed the level of efficiency under lottery versus pricing permit allocation systems, noting that pricing methods provide the most efficiency but are less equitable than lotteries. Lotteries, the authors noted, minimize preferential treatment toward certain groups regarding ease of access. Through evaluating three scenarios – the status quo (no secondary market), a secondary market for only “rafters,” and a secondary market for anyone, including “nonrafters” – the authors concluded that a post-lottery market for rafters is a “double-edged sword” (p. 22). While rafters could trade permits and improve the aggregate value of river use, they would be less likely to obtain a permit in the initial lottery, ultimately paying more to an individual.

Discussion

Seminal papers such as Stankey (1977), Shelby et al. (1981), and McCool and Utter (1981b) set the groundwork for river recreation use allocation and began to discuss the equity of different distribution systems in their discussions. Schomaker et al. (1983) engaged with the concept of equity directly in their study design, aiming to identify potential inequities in different river recreation systems across the country. Later papers such as those by Shelby et al. (1989), Wikle (1991), and Siderelis et al. (2006) built on this research and continued the discussion of equity in their studies but did not always include these concepts directly in their study design. Additionally, Shelby et al.'s 1989b study explored users' perception of fairness directly and is a key example of equity engagement in the field. More economics-based papers such as those by Chouinard et al. (2004) and Loomis (1980) took a hypothetical approach to river permit allocation, discussing equity but from the standpoint that pricing systems are the primary method for achieving economic efficiency, thus are not focused on maximizing social equity, *per se*. Collectively, these studies either attempted to measure perceived fairness or inequity directly through surveys and questionnaires or used economics-based approaches to hypothetically manipulate the permit market to investigate equity or fairness for different adjustments. Importantly, the concepts of fairness and equity from an allocation or market perspective, as utilized in these studies, are quite different from an environmental justice perspective. The 2022 US Department of Interior definition of equity as “the consistent and systemic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such

treatment" (Secretary's Order No. 3406, 2022) is a modern and inclusive approach to the complex issue of achieving equity, and it is important to note that these studies were predominantly conducted decades ago when this topic was not discussed with the same nuance. Despite the evolving nature of these concepts, it is important to explore the river recreation literature for how they have been studied historically so that we can continue this research using modern and inclusive definitions. This updated look at equity in river recreation allocation is crucially needed, as river recreation continues to grow in the US, and river recreation use allocation systems continue to be implemented. While directly engaging with these concepts within a study design does not inherently lead to a large-scale impact on river allocation practice, these studies provide a few management implications worth noting.

Importantly, when discussing equity and fairness in most of these studies, these concepts are defined in terms of river-running populations, not recreationists more generally. By measuring "equity" as simply which groups within a population of river users can benefit from a reservation system (e.g., Shelby et al. 1989b), equity is not being discussed on the larger scale of the general population of those who are legally able to access public land, which is theoretically all people. This perspective is critical to note as in many of these studies, equity is discussed only for those users who are able to utilize the river recreation resource, and not all potential users more generally. Viewing this issue from a DEI lens is an important step in determining the accessibility of these river recreation settings and the allocation techniques utilized within them. Identifying the gaps in the literature as they pertain to equity and fairness (such as spillover effects, displacement, and ecological and social impacts) will be critical for river recreation managers to implement permit allocation systems that are acceptable and equitable to all potential users.

Limitations

An important limitation of this research rests on the fact that the word "equity" is defined differently across eras and contexts. Thus, temporal changes in context—and perhaps increased use of the word in the present context—may have impacted our review. Additionally, it is possible that some research items may have discussed equity or fairness without using the words themselves.

Conclusions and Management Implications

The issue of river recreation use allocation is not a new one, nor has use slowed down in the time since its allocation began being studied. Discussions of equity and fairness within these allocation systems were exploratory during the decades following their initial implementation (e.g., Shelby et al. 1989b). Different researchers have prescribed different frameworks, with some suggesting common frameworks and policy directives across all US river systems (Shelby 1981), and others stating that allocation decisions should be made on an individual river or regional basis (Lime 1981). McCool and Utter (1981a) have suggested a middle ground, stating a need for a national policy for recreation allocation to act as a framework for river managers, but that this policy would require flexibility to fit the needs of specific rivers and their unique social-environ-

mental contexts. They state:


Each group should recognize it cannot win at the loss of some other group. Each should understand that there are significant commonalities among all groups: each wants to protect the resource, each wants a quality experience, each does not want an expensive bureaucracy, each wants a fair and equitable allocation system. (p. 76)

The competing interests of commercial and noncommercial boaters have been debated publicly since use was restricted and has been brought to judicial review on more than one occasion. Transactive planning is one suggested model for managing these diverse interest groups, offered as an alternative to the more widely used synoptic planning approach to river recreation use allocation (McCool and Ashor 1984). This transactive planning approach directly involves the public and citizen groups in the decision-making process, noting that river management "occurs within the context of a highly politicized environment." However, the scarcity of river recreation resources is important to note here, as different user groups have different values and "lifestyles," so to speak. Schreyer and Dalton (1982) note that:

The rhetoric focuses around "crowding," or "motors vs. no motors," but the underlying issues are really concerned with the demand for types of experiences at differing levels of organization. Further, there is the recognition that managing for the facilitation of one type of experience may hinder the attainment of another. Thus, managers have been forced to confront concerns of social equity at the forefront of cultural evolution. (p. 139)

They make a comparison of managing user conflicts as "a series of brushfires" rather than broader recreation resource planning, which they point to as a pressing need in whitewater recreation management.

With almost 50 years of discussion surrounding river recreation use allocation, managers still do not have a clear path forward. While this scoping literature review does not fully describe the work surrounding river recreation allocation, it is important to note that it is not an extensively studied field, and there has been a gap in research since the 1970s on this topic. Perhaps partially as a result, many of the policies implemented at this time in different river recreation areas are still in use today, despite changing use numbers and different environmental and social concerns. Thus, more research is required to understand how allocation impacts equitable access to outdoor recreation, especially as we emerge from a global pandemic wherein lower income individuals and Black, Indigenous, and People of Color were more likely to cease outdoor recreation than begin participation (Taff et al. 2021). While studies surrounding allocation processes have discussed equity and fairness as theoretical concepts worth taking a deeper look at, this deeper look has yet to come into focus. The question of whether each allocation technique is equitable or fair to all potential river users has been addressed at varying levels since the 1970s, as this scoping literature review explores. But equity in this context is utilized at a minimal level of engagement – discussed within the framework of distributive justice and solely studying just

those users that already have access to a particular river. Future research will require a more extensive exploration into how equity might be weighed in concert with efficiency in informing allocation design, and whether current river recreation use allocation systems are equitable to all potential users, not just those that know how to work within the river recreation system. 

KELSEY E. PHILLIPS is a master's student at the University of Montana in the Department of Society and Conservation; email: kelsey2.phillips@umontana.edu.

WILLIAM L. RICE is an assistant professor of outdoor recreation and wildland management at the University of Montana, Parks, Tourism, and Recreation Management Program; email: william.rice@umontana.edu.

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A campfire in the Marjory Stoneman Douglas Wilderness. **Photo Credit:** (National Park Service)

Exploring Underserved Communities' Perspectives on Wilderness Character in Everglades National Park

by ELENA R. THOMAS, JACLYN F. RUSHING, WILLIAM L. RICE, JENNIFER M. THOMSEN, and CHRISTOPHER A. ARMATAS



Elena R. Thomas



Jaclyn F. Rushing



William L. Rice



Jennifer M. Thomsen



Christopher A.
Armatas

ABSTRACT Issues related to diversity, equity, and inclusion are becoming increasingly important to park and protected area managers. Recently, several Executive Orders have established policies and priorities for steering public lands to better serve the diversity of the US public. Certain groups, compared to the US population at large, are underrepresented as visitors to parks and protected areas in the US, including BIPOC communities (Black, Indigenous, and other People of Color), women, people with disabilities, veterans, people with lower socioeconomic status, and the elderly. This disparity in visitation may be even more pronounced in federally designated wilderness areas. We present a qualitative study focused on the relationships of traditionally underserved groups with Everglades National Park, specifically focusing on perceptions of wilderness character in the Marjory Stoneman Douglas Wilderness. Findings illuminate both perceived benefits of wilderness, including positive mental health, ecosystem services, and a connection to unique aspects of wilderness character in the Everglades, as well as conflicted feelings about wilderness as a place that underemphasizes historic interactions of underrepresented communities with the landscape. We discuss management implications, particularly ways to focus protected area efforts to broaden the relevancy of wilderness lands and better serve diverse populations within local communities.

Keywords: wilderness character; diversity; everglades; underserved populations.

Wilderness preservation provides critical benefits to humankind. The wilderness construct, however, as codified in the United States (US) context by the Wilderness Act of 1964, is underpinned by a colonial paradigm of nature and civilization (DeLuca and Demo 2001; Thomas et al. 2022). While the concept of wilderness leisure and recreation is largely owed to east Asian and Middle Eastern cultures (Nash 2014), our present conceptualization of wilderness is the product of western colonialism, a force largely dominated by white, male, Christian ideals (Stankey 1989). As such, the policies and management documents that direct wilderness stewardship derive from foundational policy containing “baked-in” inequities (Hays 2019). This may also be true for the Wilderness Act of 1964 (Powell 2016)—which, among other purposes, provides a definition of wilderness, describes the purpose of wilderness, and created the National Wilderness Preservation System in the US. For instance, Powell’s (2016) history of the wilderness movement points to an intention to construct a wilderness designation that would limit accessibility to the majority of Americans (what William Vogt referenced in 1943 as the “Venture beach and Coney Island crowd” which was increasingly visiting national parks). As written by US Forest Service staff Manly Thompson in 1928, “Question: What makes the wilderness wild? Answer: Exclusion of the hoi polloi. Question: How can we exclude said hoi polloi? Answer: Keep the wilderness inaccessible” (p. 2). Bob Marshall appears to concede to Thompson’s primary argument (that proposals for a wilderness designation were being designed to exclude the majority) in his essay “The Wilderness as a Minority Right” (1928).

Further, the suggestion that the wilderness concept is the product of western colonialism is partly supported by the lack of demographic diversity (e.g., race, ethnicity, gender, and religion) of participants involved in creating and formalizing the wilderness concept. For instance, the American conservation movement, which overlaps with the wilderness movement, has been described as a vision of middle class, white men (Taylor 1997; 2002). It is worth noting that the centering of a white-male vision of conservation is largely due to the lack of cultural attention to BIPOC-led environmental movements, which have historically been neglected by dominant American news and media sources (Finney 2014). For example, in her book *Black Faces, White Spaces*, Carolyn Finney emphasizes how national magazines such as *Outside* are one way in which "the dominant environmental narrative in the United States is transmitted to the public" (2014, p. 78). From 1991 to 2001, Finney identified 4,602 pictures in *Outside* that contained people, 103 of which included African Americans – most of whom were famous male athletes in urban settings and "primarily in advertisements" (2014, p.78). Nonetheless, the wilderness movement, as formalized in the act, was largely ethnocentric; consider that the 87th US Congress, which served between 1961 and 1963 in the lead-up to the passage of the Wilderness Act, was 92% Christian, 98% White, and 97% male (Congressional Research Service 2012).

Thus, a common understanding of the wilderness construct, generally implemented by US federal land management agencies focused on preserving "wilderness character,"

is likely influenced by a narrow view resulting from the prominence of a colonial lens. Wilderness character, as adopted by federal land management agencies, is defined in the Keeping It Wild framework (Landres et al. 2008) as consisting of five qualities: (1) untrammelled, (2) natural, (3) undeveloped, (4) solitude or a primitive and unconfined type of recreation, and (5) unique values of a given wilderness area. These five qualities of wilderness character are derived from Section 2(c) of the 1964 Wilderness Act, and Landres et al. (2008) broadly define wilderness character as:

The combination of biophysical, experiential, and symbolic ideals that distinguishes wilderness from other lands. These ideals combine to form a complex and subtle set of relationships among the land, its management, its users, and the meanings people associate with wilderness. (p. 6)

However, given that our understanding of wilderness character and its ideals is informed by colonial influence, there is much to learn about wilderness character from decolonized perspectives. Indeed, Landres et al. (2008) appear to allude to the potential revision of our understanding of wilderness character when noting that "wilderness character is more than these four qualities" (p. 8) and additional "aspects of wilderness character could be added to this interagency strategy as research develops" (p. 8).

Considering the colonial nature of the wilderness construct as we know it and the lack of research that seeks to amplify marginalized voices on wilderness character (Thomas et al. 2022; Thomsen et al. 2023), this

study is centered around Everglades National Park's (EVER) coastal, urban-proximate, and unique Marjory Stoneman Douglas Wilderness (MSD), and aims to expand our understanding of wilderness character by exploring the following research question: What relationship do local underserved communities have with MSD and what are their perceptions of wilderness character? Approximately 1.3 million acres or 86% of EVER is designated wilderness and is the largest subtropical wilderness in the US and the largest wilderness area east of the Rocky Mountains (National Parks and Recreation Act 1978). EVER and MSD are also in close proximity (about 75 miles, 120 kilometers) to the Miami metropolitan area, boasting nearly 3 million people (with 72% identifying as Hispanic/Latino). Additionally, this study contributes toward addressing other recently defined research gaps in wilderness visitor use management (VUM) by examining an urban proximate and coastal wilderness area, both of which are lacking in the greater wilderness VUM literature (Rice et al. 2021).

Importantly, the purpose of this study is not to compare or contrast the wilderness perspectives of underserved communities to the perspectives of the majority of wilderness users. Such an approach would simply reaffirm the power of this majority. As noted by Park et al. (2022), the trend of research in the leisure sciences that explores marginalized groups' use patterns as they relate to another group "is problematic and limiting to the experience" (p. 3) of the marginalized group whereby their experiences may be viewed as simply ancillary to the majority. Instead, this study seeks to focus on the underserved com-

munities' perspectives. Reference is made to the policy and management documents that guide wilderness stewardship nationally and locally, but otherwise framing underserved, marginalized perspectives in comparison to wilderness use as a whole is curbed wherever possible. We understand that this may limit the ability to connect this research with much of the existing literature. We also acknowledge that "underserved" and "majority" are blanket terms to describe groups of people who are intersectional and not monolithic. Previous research on constraints to recreation found that intersecting identities such as age, gender, race, class, and place of residence interact, and can influence recreation preferences and barriers (Shores et al. 2007). Through a multiple-hierarchy stratification analysis, Shores and colleagues (2007) found that the most constrained people were women of color, especially when combined with low socioeconomic status and being elderly. Young White men were significantly less constrained than other identity combinations (Shores et al. 2007). From an intersectional perspective, we highlight that the dominant or majority wilderness user is similar to the demographic who composed and signed the 1964 Wilderness Act – primarily White, wealthy, hetero, cisgender, and able-bodied.

Methods

Data Collection

To address our research aims, 23 in-depth semistructured interviews were conducted from March to August 2022. This study utilized a hermeneutic approach and is guided by the assumption that rich understanding can be obtained by exploring how participants construct meaning and make sense of their lived experiences, with an emphasis on the situational and cultural context of those experiences (Patterson and Williams 2002).

The study sample was obtained using a mixture of purposive and snowball sampling methods, to obtain a diverse range of perspectives and backgrounds among participants, as well as sufficient representation of a variety of underserved communities living in South Florida (Parker and Geddes 2019). Outdoor affinity organizations, or shared identity groups with common interests in the outdoors, were originally targeted to recruit participants who may have had a previous relationship with the park or an interest in visiting. Interviewees were then asked to suggest other groups or individuals who belonged to a local underserved population; thus, while some interviewees had a great deal of familiarity visiting MSD and knowledge of the area, several interviewees had not visited before or had very limited experience. Participants were recruited through an email request or through social media (Instagram, Facebook) direct messages, and all interviews were conducted via Zoom. In total, nine interviewees identified as Latine, four as African American, four as multiethnic, one as Asian, three as Caucasian,

and two did not disclose their ethnicity. Twelve interviewees identified as women, nine as men, and two did not disclose their gender. Three members of our sample identified themselves as living with a disability, one identified as belonging to the LGBTQIA+ community, and two were veterans. Ages of the participants varied, ranging from 22 to 72 years of age. Due to significant time constraints, we were unsuccessful in our attempts to interview members of South Florida Native American Tribes. While numerous attempts were made to connect with tribal members, we were unable to develop the relationships needed to collaborate on this research (Kovach 2021).

In total, the average interview length was 45.5 minutes. A semistructured interview guide consisting of approximately seven questions and probes was utilized by the interviewer to provide comparable results across participants, allow for unique insights, and encourage freedom of response (Kvale and Brinkmann 2009). Questions focused on the importance of EVER to study participants' lives, and perceptions of MSD. Participants were also prompted to respond to direct language from the Wilderness Act of 1964 referencing wilderness character, to explore general attitudes and relevance of the wilderness concept. For example, participants were asked what the statement – "an area of wilderness has outstanding opportunities for solitude or a primitive and unconfined type of recreation" – meant to them. Interviews were digitally recorded and transcribed verbatim; pseudonyms were used in place of participant names for confidentiality purposes.

Analysis

A qualitative data analysis program (NVivo) was used to systematically code and organize the data. The coding process consisted of reading each transcript multiple times in its entirety and initially analyzing it for major emergent elements of each participant's interview (idiographic analysis) (Patterson and Williams 2002). Similar overarching themes across cases were identified, coded, and assigned into categories that spanned across individuals (nomothetic analysis) (Patterson and Williams 2002). Through this analytical process known as the "hermeneutic circle," the individual elements of each interview are continuously and simultaneously compared to the whole phenomenon being studied, and in turn, the whole is compared to its parts, leading to a richer understanding (Gadamer 1989). To encourage consensus, multiple authors reviewed transcripts to develop codes and discuss themes that emerged in the process (Bartley and Brooks 2021).

The hermeneutic paradigm assumes that researchers cannot compartmentalize their prior knowledge and preconceptions when interpreting study participants' lived experiences. In fact, the interviewers' prior knowledge and experience plays an active role in understanding and organizing emergent themes from each interview (Gadamer 1989). Thus, it is important to acknowledge that our positionality as White members of higher education and land management institutions may have affected our interpretation of the information that participants shared. Additionally, as an English-speaking, middle class, able-bodied, and cisgender woman, the lead author and interviewer approached this work from an undoubtedly privileged and outsider perspective that may have influenced how participants were recruited, how they perceived the research, and what they were willing to discuss.

Pseudonym	Age	Gender	Ethnicity
<i>Jasmina</i>	32	Woman	Multiethnic
<i>Sarah</i>	30	Woman	African American
<i>Danny</i>	42	Man	Multiethnic
<i>Daniel</i>	*	*	*
<i>Sally</i>	27	Woman	Latine
<i>Shannon</i>	30	Woman	Latine
<i>Natasha</i>	*	*	*
<i>Valerie</i>	34	Woman	Latine
<i>Jamie</i>	22	Woman	Latine
<i>Naima</i>	29	Woman	Latine
<i>Dayton</i>	23	Man	Latine
<i>Brittany</i>	65	Woman	Caucasian
<i>Gwen</i>	*	Woman	Caucasian
<i>Thomas</i>	38	Man	Multiethnic
<i>Jon</i>	29	Man	Asian
<i>Davy</i>	29	Man	Latine
<i>Steve</i>	31	Man	Latine
<i>Manny</i>	30	Man	Multiethnic
<i>Ami</i>	35	Woman	African American
<i>Gabe</i>	36	Man	African American
<i>Audrey</i>	29	Woman	Latine
<i>Alana</i>	72	Woman	Caucasian
<i>Cameron</i>	24	Man	African-American

*The participant did not disclose this information.

Table 1 – List of pseudonyms.

Results

The following results are reported thematically, first focusing on the relationship between local communities and MSD and then highlighting participants' valuation of MSD with regards to each wilderness character quality.

Toward an Inclusive Relationship with Wilderness: The Everglades Ecosystem

Participants had an intimate and wholistic relationship with MSD where they considered themselves as a part of the Everglades ecosystem regardless of how close they resided to MSD. Historically, the Everglades ecosystem stretched from Lake Okeechobee, across southern Florida, to Florida Bay and the Gulf of Mexico (~3,840,000 acres). Participants tended to think of the scope of the Everglades in its historical range – as a wild system that transcends the boundaries of MSD, even reaching into urban environments such as Miami. Interconnectedness was a key theme that is reflected in participants' wholistic view of people and nature, and 'what constitutes the Everglades.'

Many interviewees discussed their connection to the Everglades ecosystem with an understanding of reciprocity between humans and nonhuman nature. Sarah talked about her connection with the Everglades: "You may not interact with it every day, but it interacts with you every day, from your tap water to your shower to your garden and watering your flowers." Danny expanded this perspective, reflecting on how "the River of Grass" is a part of systems that extend beyond South Florida. "It's all connected, right?... It never just stops at Florida Bay...it never starts right outside my window. It starts further north."

The connections that participants discussed transcend from wilderness into urban environments. When asked about her relationship to EVER, Ami shared how the Everglades ecosystem is still present in Miami.

Miami to me is just one bit behind Everglades that we just put roads on top of...when I think about my relationship with the Everglades...it's more so just about land in general. I understand that this is a land that has been built on top of and this land, because of its ecosystems, is always fighting through.

Further, interviewees felt that humans were a part of the Everglades system. Cameron considered himself and greater South Florida as part of the system and subject to its reciprocity.

I [appreciate] the ecosystem of the Everglades as it relates to Miami as a city. This water, literally half of the woods that led up to it made Miami...you may look at it as something that is separate, but...I got that understanding that, "oh, I'm actively a part of this environment, whether I see it or not"...actions that we make in the city affect the Everglades.... As much as we're hurting the environment, it'll come back to hurt us as a city.

Since participants tended to conceive of the Everglades more holistically, some felt that the boundaries around EVER and MSD were “arbitrary” but necessary to protect the system. Sally said,

The park is a hard line, and I think for years we thought that the peri-urban boundary, that agricultural buffer zone around the park, was also going to be a hard line, and it clearly isn't because our county commissioners continue to move that line further and further and closer to the park.... There is an actual federal line that they have no authority over, and that is the actual park...the park is a weird geometric shape...it's so arbitrary and that's not how natural systems function.

Sally emphasized that although the park boundaries are arbitrary and unnatural, “in some ways...it's the last stand for South Florida as it used to be.”

Perceptions of Wilderness Character

Naturalness

When asked specifically about their perceptions of the wilderness character qualities of MSD, interviewees discussed the quality of naturalness in nuanced ways. Many participants felt that natural qualities of the ecosystem, such as the presence of endemic wildlife, contributed to their sense of wonder and deep emotional connections to MSD. As Thomas explained, “You see all kinds of turtles and pods of dolphins and sharks everywhere...and then at nighttime...you see everything. There's no lights or pollution...it's beautiful.” Dayton also discussed how meaningful these intimate nature experiences are in building an ongoing relationship to the park, saying, “The sense of wonder never leaves you... I could go back to the Everglades a hundred times...and every time I'll still be amazed.”

Participants felt that the wilderness designation helped to protect the unique and valuable ecosystem services of the Everglades. Davy perceived EVER's wilderness designation as being “incredibly important [in protecting] the structure of the park...that is thousands of years old,” stressing the ecological importance of MSD's natural environment to “not just people in Miami Dade County, but also the wildlife in the area.” Jamie considered the quality of naturalness as being particularly apparent in MSD, reflecting that because EVER receives less visitor use than parks such as Yosemite and is more “inaccessible by virtue of how it is,” referring to the amount of water in the park, “it's a much more intact ecosystem.”

Many respondents talked at length about the ecological value of the natural Everglades ecosystem in relation to their lives as South Florida residents. Particularly, the role of the Everglades in providing drinking water for Miami and other urban centers in the area was paramount to many such as Naima, who described it as “a huge critical factor here that needs to be preserved... it's a necessity for us.” In addition, the preservation of “unspoiled Florida” and the biodiversity of plant and animal species found within MSD “for future generations to enjoy” was seen as highly important to both Dayton and Jon, respectively. Jon stated, “The more time we spend learning

about [the Everglades ecosystem], the more we'll realize we can't exist without it."

Thinking about the system more holistically (i.e., including areas outside of the wilderness boundary), participants acknowledged and expressed concern about how human actions outside MSD degrade the naturalness of the wilderness within. Alana discussed the potent effects of sea-level rise and saltwater intrusion to the unique coastal ecosystem of the Everglades, saying, "Anything that's on the coast...will be impacted... climate change is a cascading effect and South Florida will feel it more than many places on the planet." Additionally, Daniel described the harmful effects of phosphorus pollution from nearby agricultural operations on the Everglades ecosystem, saying, "If it gets too much...it'll just die." On the other hand, Danny felt that the agricultural areas bordering the park act as "buffers" to rising development "going east to west" from the coastal cities of Miami and Ft. Lauderdale, saying, "Eventually we're just going to continue to infringe upon the Everglades."

Untrammeled

Despite concerns for human impacts on the ecosystem, participants regarded the "untrammeled" quality of wilderness as inapplicable to the present-day Everglades ecosystem. Several participants reflected on the prevalence of both historical and current anthropogenic impacts in MSD and emphasized the need to manage these impacts going forward. Broadly, interviewees such as Jamie described how "all the corners of the planet have been influenced by humans.... If there's things that can be done to mitigate any negative

impacts that humans have caused in terms of management practices, then those should be taken." Many respondents mentioned more specific resource issues within the park that are currently being managed, such as preventing the spread of invasive species such as Burmese pythons and Brazilian pepper. Valerie acknowledged their presence in MSD as contrary to the language in the Wilderness Act "about humans not remaining there," saying "the species do remain that humans have brought over for all kinds of different reasons.... I think we can support invasive removals where we can."

Additionally, Daniel referred to the historical diversion canals built inside and outside the park as "one great plumbing program," one that interrupts the natural sheet flow and seasonal processes of the Everglades wetland ecosystem. Alana further elaborated on the importance of water flow into the Everglades and the role of the Army Corps of Engineers in managing and regulating it from Lake Okeechobee north of the park (and thus tram-meling), saying,

The fact that we're at the bottom of the watershed really means that that which creates the Everglades ecosystem is impacted by the quality and quantity, timing and distribution of the water that gets there.... We're not a mountaintop park where we can control what goes on. We have to deal with what's flooding into us.

According to Sally, preserving the Everglades ecosystem in an untrammeled state is almost impossible. She described it as a "dynamic system" that should be continually



Figure 1 - A trail sign along the Nine Mile Pond Canoe Trail in the Marjory Stoneman Douglas Wilderness. Minimal signage exists throughout the wilderness area. (Photo Credit: Will Rice)

managed and restored in the face of climate change and saltwater intrusion, suggesting that park managers could “upregulate some of these nature-based solutions...processes that the Everglades...already provides.... What are these strategies we can be taking to retain that original ecological character of the park?” Sarah reiterated this perspective, saying that “because of the era that we live in and what the Everglades has gone through, I don’t think it’ll ever get to where it was...[but] we can also acknowledge that we can still conserve what we have and make it better.... How can we mitigate any less damage from happening?”

Undeveloped

Participants reflected on the importance of limited-to-no development within MSD, related to mitigating encroaching development outside of the park. Brittany talked about MSD’s undeveloped quality as an important reason she chooses to visit, saying, “Florida is surrounded by civilization. This area is not. That’s why it’s special, because it’s you and the wildlife. It’s not you fishing and looking at a bunch of condos.” Gabe discussed how important the preservation of undeveloped areas such as MSD is in resisting urban sprawl “because how many preserved lands do we still have when everybody wants their own plot and developers really don’t care?”

However, some participants also discussed the need to provide the public with infrastructure to access MSD. Audrey described some development in wilderness, such as the building of visitor facilities and trails, as a “revenue-generating source for maintaining the space.... People need to be able to go and...interact with it for them to care...caring is in an important part of conserva-

tion." Both Jon and Steve, two interviewees with physical disabilities, reiterated this point in their interviews. "From the disability point of view, you do need some modifications for that area to be accessible...there should be a point of balance," Steve explained.

Solitude

When asked about their experiences in MSD and the role of EVER in their lives, respondents brought up certain dimensions of solitude, such as natural quiet and distance from society and technology, as beneficial for mental health and wellness. Participants living in the urban centers around the park perceived MSD's difference in environment and lack of cell service as a highly valuable "opportunity to get away from the hustle and bustle of Miami-Dade." Danny described the mental health benefits that MSD provides to him as a veteran, saying,

I could sit there and safely say that when I'm immersed in that environment, it has been a better therapeutic activity than sitting in four white walls at the veteran's hospital.... When it comes to my mental health, I'd rather be surrounded by cypress trees, knee deep in water.

Interestingly, when prompted about the value of solitude – using language from the Wilderness Act – in their MSD experiences, interviewees interpreted the term as "being alone" and expressed varying perspectives. The interviewees who explicitly described opportunities for solitude in MSD as important were either Caucasian or experienced outdoor recreationists familiar with the park, such as Brittany who said, "I don't think they need

any more people there. The less, the better. We go to get away from people." However, many Latine and African American respondents seemed to possess a more complex relationship with this wilderness quality. Sally explained that feelings toward solitude might not be "the same for all groups," and "for a lot of folks from other backgrounds and different identities where they've historically been mistreated in those environments" being alone in the park can be "really scary." For example, Cameron expressed a general discomfort of recreating in MSD by himself, saying, "I think it definitely was...the most quiet-ness that I've ever had.... That was one of my fears going into the park...'Oh, I'm really out here alone'...I don't know exactly why." Shannon described being alone in the park as a "sensory deprivation tank of sorts," saying she both appreciates it and is "scared of it...there's comfort in the chaos of every day" – referring to her life in urban Miami. Additionally, Jon, who is paraplegic, discussed how his valuation of solitude has changed after he became disabled, saying that it "used to be [important], not so much anymore...I can't really be alone...it's a pretty tall order nowadays."

Other Qualities of Wilderness Character

Very "few participants reflected on the unconfined quality of wilderness character; however, they did reflect on "other features of value." Interviewees brought up several aspects of wilderness that extend beyond the qualities laid out in the Wilderness Act. Namely, participants expanded on the quality of naturalness by reflecting on how MSD's unique ecosystem inspired deep emotional connections to place. Further, participants



Figure 2 - A ranger-led slough slog (a unique form of outdoor recreation in South Florida) through the present-day Marjory Stoneman Douglas Wilderness, 1965. (Everglades National Park Archives)

complicated the undeveloped quality by discussing how EVER's unique cultural history illuminates the colonialist legacy of the Wilderness Act, and how this legacy resonated with them as members of marginalized communities.

Uniqueness

Related to the natural wilderness character quality, many interviewees considered MSD to be unique compared to other US national parks and wilderness areas. Naima expressed a sense of pride about its singularity, saying, "This is the only ecosystem in the United States like it. You're not going to find this in California, you're not going to find this in Montana." On the other hand, some respondents felt that the differences in terrain and recreational opportunities deterred visitors from interacting with EVER and MSD in the same manner you would with other popular US national parks, such as Yosemite. As Jasmina said, "The landscape is totally different...the swamps and estuaries...it's an acquired taste for some people that didn't grow up in Florida." Sally emphasized the effect these differences may have on visitation, saying that EVER is "not the most forgotten national park, but it's also not the most popular."



Figure 3 - Two women hold signs during an Organized Migrants in Community Action protest against expanding EVER to include the agricultural area known as the Hole-in-the-Donut, 1975. (National Park Service)

Colonialist Legacy

Related to the undeveloped wilderness character quality, when responding to sections of the Wilderness Act that mention the lack of human habitation, many of our study's African American and Latine respondents identified that this aspect of the act does not consider the historical use of the Everglades, the communities living in the area before it became a national park and wilderness area, and tribal sovereignty. Gabe describes the language of the act as failing to acknowledge a fraught colonialist legacy, saying,

When I think of man and land, I think of enslaved people and forced labor...but it's packaged and presented as a very rosy perspective. If you think back to a Native perspective, those people were massacred for living the way that they lived because people wanted to come and expand.... We had to remove the peoples that live in harmony with this location.

Jamie acknowledged that Indigenous groups in the area such as the Miccosukee Tribe "have been living [in MSD] and managing this land for thousands of years...they have a right to exist on

it...the Wilderness Act doesn't take that into account." Finally, both Danny and Sally discussed the preexisting agricultural community in the area of the park known as the "Hole-in-the-Donut," a historical "stronghold for Black farmers and other minoritized group farmers," and cited their eviction from the park by the National Park Service as another example of historical exclusion that the Wilderness Act fails to recognize. "That's kind of just the reality of the western approach to protected areas...there's a lot of kicking people out...that can have legacy repercussions," Sally explained.

Discussion

The primary premise of this paper is that an underrepresentation of voices contributing to the wilderness construct (e.g., development of the Wilderness Act, subsequent research) has likely resulted in a narrow view of what wilderness means. Thus, we set out to learn about local under-served communities' relationship with MSD and their perceptions of wilderness character. This discussion highlights, at least in part, a wilderness concept through the voices of underrepresented communities and how this concept relates to the existing dialogue around the inclusivity, or lack thereof, within the wilderness construct and resulting narratives. Based on the reflections of our participants, we provide additional suggestions for how such a view of wilderness could help US federal land managers and planners approach wilderness stewardship in a more culturally relevant and inclusive way.

Wilderness, Its Colonialist Legacy, and a Need for More Nuanced Discussion

The perspectives explored in this study highlight several benefits that can be derived from MSD, including the ability to experience a sense of wonder, unplug and escape from society, distress, and an appreciation of its role in preserving a biologically diverse and unique ecosystem. These benefits of wilderness, and perhaps nature more generally, are well documented in past research (e.g., Bittner 2013; Cole and Hall 2010; Hall and Cole 2011; Hall et al., 2010; Lang and Borrie 2021; Meyer and Borrie 2013), which suggests that particular positive perceptions of wilderness span different communities, identities, and lived experiences. While many documented benefits of wilderness may be widely embraced, the social overlay of wilderness may also conjure traumatic and negative sentiments. Historical trauma associations with wilderness and the colonial projects are also documented in past research, and include collective memories of beatings, lynchings, and cruel working conditions that occurred in these spaces (e.g., Corliss 2019; Denevan 2011; Dietsch et al. 2021; Johnson and Bowker 2004; Moreton-Robinson 2015).

The perspectives that emerged through this study around wilderness character captured, at least in part, a view that the wilderness concept, formalized through the act, represents a colonialist legacy in the US. More specifically, wilderness was thought to smooth over historical traumas and atrocities that exist within US history, which were replaced with a "very rosy perspective" about a place where human habitation was forcibly removed or retained when it represented an idealized past relationship between people and the land. Literature outlining

forced removal has largely focused on Indigenous communities (e.g., Buhay 2022; DeLuca and Demo 2001; Deur and James Jr. 2020), and stories of other communities forcibly removed from wilderness are understudied. For example, African/Black Americans inhabited, subsisted on, and stewarded areas now designated as wilderness in Congaree (Davis 2015) and Everglades National Parks (NPS 2020). In both cases, Black Americans have a deep relationship to place linked, in part, to subsistence that was deeply degraded or destroyed by the areas' wilderness designation (Davis 2015).

Increasingly, the wilderness community is reckoning with its colonialist legacy, and specifically the issue of whether it facilitates or impedes the human-nature relationships of people who have long been interacting with the landscape, such as Indigenous Peoples and African/Black Americans (Davis 2015; NPS 2020). These positions are often presented to be mutually exclusive. That is, wilderness is sometimes framed, on one hand, as a "dangerous" idea that perpetuates a myth that humans are apart from nature and, more sinisterly, was used to justify the forced removal of Indigenous peoples from lands they had occupied for thousands of years (Buhay 2022). In response to the type of wilderness critique leveled by Buhay (2022), a common refrain is that the wilderness construct has been misinterpreted. For instance, Kaye and others (2022) suggest that an "unfortunate misunderstanding has been that the wilderness idea somehow erases Indigenous people from the landscape" (p. 58) – arguing that the wilderness idea mostly intended to protect

places from more modern human development and activities, such as the building of roads and destructive logging, mining, and agricultural practices rapidly occurring after WWII. Further, and more fundamentally, Kaye et al. (2022) argue that wilderness values are not conflicting with Indigenous values but are instead intersecting. We suggest that most discussions around the colonial legacy of the wilderness construct include valid claims, whether they critique or defend the wilderness idea, and therefore these discussions are not mutually exclusive. Indeed, it seems many of the critiques and defenses of wilderness are, simultaneously, credible.

we highlight the value in more nuanced discussion that does not frame wilderness as good or bad, in a mutually exclusive way, but instead aims to create learning opportunities around how the full suite of American people perceive wilderness

For instance, there is merit to the suggestion that the wilderness concept was largely about protecting landscapes from, primarily, a dominant White, Christian culture that, throughout the 1800s and 1900s, was efficiently and quickly "conquering" predominantly undeveloped landscapes (Stankey 1989). Additionally, it has been pointed out that early wilderness thinkers such as Bob Marshall did recognize the long-existing Indigenous human-nature relationships (Kaye et al. 2022).

And similarly, Facemire (2022) explained that early discussions around (and drafts of) the Wilderness Act considered some of the complexity of US federal government relations with Indigenous communities. However, for a variety of reasons, it is challenging to disentangle the wilderness construct from the colonial institutions from which it emerged. In the end, the Wilderness Act did not explicitly acknowledge Indigenous human-nature relationships (Cole and Yung 2010) and the ethnocentric movement involved in the crafting and passage of the act was homogenous, at least demographically. Further, the broader public lands system in the US, including wilderness, is a mechanism of the US federal government that subjected minoritized populations to forced removal (Moreton-Robinson 2015). Contemporarily, as reflected in the "land back movement," the public lands system is an impediment to self-determination, an important and ultimate goal of many Indigenous communities. Also, as demonstrated in this study, wilderness lands provide and protect many benefits that are important to and valued by a diverse range of people and populations. In summary, wilderness is imbued with a colonialist legacy, and at the same time, is beneficial to a diverse range of Americans.

Therefore, we highlight the value in more nuanced discussion that does not frame wilderness as good or bad in a mutually exclusive way but instead aims to create learning opportunities around how the full suite of American people perceive wilderness. As Luloff and colleagues (2014) write, "Current thinking [in conservation social science] has been dominated by those who offer extreme positions, often posed in terms of black and white – the tyranny of OR condition. What are needed are efforts that seek to strike a balance between extremes. Such work will lead to the possibility of an AND scenario" (p. ix).

Implications of an Inclusively Defined Wilderness Concept for Relevance

In recent years, there have been efforts to increase relevance, diversity, and inclusion in federal public lands through executive orders (e.g., EO 13985 Advancing Racial Equity and Support for Underserved Communities through the Federal Government). The National Park Service in particular has sought to promote relevance, diversity, and inclusion throughout its system through federal hiring, employee support, interpretation, community outreach, and partnerships (Office of RDI 2021). This study highlights that most wilderness character values (particularly naturalness, undeveloped, and dimensions of solitude) are relevant to the members of underserved communities. Underserved community members noted that opportunities to engage in wilderness were arbitrarily limited in their views of wilderness stewardship (or, the role people play in wilderness) – where stewardship is portrayed as hard physical labor and prioritizes an "untrammelled" nature over healing and conservation of the ecosystem through intervention. Interviewees thought of the EVER ecosystem historically and wholistically – beyond the bounds of MSD – and valued the past (and present) Everglades ecosystem that they live in and rely on. Based on the findings presented herein, we consider two dimensions of wilderness management, volunteer stewardship and intervention actions, that are worth consideration to expand more diverse participation in wilderness stewardship.

Wilderness Volunteer Stewardship

It is possible that the above quote from Gabe (i.e., “When I think of man and land, I think of enslaved people and forced labor”) is relevant within the context of volunteerism and stewardship of wilderness lands. Increasingly, wilderness stewardship is being embraced, whereby the federal government partners with nongovernmental entities and people to address a variety of issues facing wilderness units. A common partnership in this context is the recruitment of volunteers or modestly paid workers to complete trail work. While some may view this activity as a way to experience nature and provide a service to the wilderness community, previous research has found that some others are hesitant to engage in this activity given the traumatic history of forced labor in the US (Dietsch et al. 2021).

In the context of increasing wilderness relevance, it is important to understand that relevance can be both positive (e.g., connection to place and/or activity based on fond childhood memories) and negative (e.g., connection to historic traumas such as slavery). This knowledge of potentially disparate reactions to stewardship volunteer opportunities could highlight a barrier to diversifying participation in volunteer programs. For wilderness managers, there may be value in explicitly acknowledging the colonial legacy in volunteer recruitment materials, and/or highlighting different stewardship opportunities for historically marginalized communities. Wilderness has a plethora of qualities such as conserving biodiversity and history that were extremely important and relevant to the participants in this research. Perhaps offering

other stewardship opportunities that advance stewardship and personal growth goals such as citizen science projects could be explored (Hung 2003). To be clear, we are not suggesting that trail work partnerships are bad or in need of being discarded but instead highlight that reactions to the idea of volunteering on wilderness lands may be perceived differently by different people.

Interventions in Wilderness

Intervention is a dimension of the wilderness concept that may be reframed, at least in part, based on the study's findings. The conundrum about whether to intervene in ecological processes is thoroughly discussed in the wilderness literature (e.g., Facemire 2022; Cole and Yung 2010), and we do not unpack the discussion here. However, we draw attention to the reactions that participants had to the idea of intervention, with a tendency to regard untrammelled as less important than retaining or improving naturalness. It is possible that this perspective is simply the result of the participants' limited engagement with the wilderness concept (as defined in the act). A lack of awareness about the concept of untrammelled was found in previous research and was partly how Davidson and Hall (2013) explained the finding that visitors to wilderness generally tend toward the intervention side of the debate. Another reason why the respondents in this study seemed to prioritize intervention was the location of MSD as a downstream unit from other watercourses and heavy human development. Nonetheless, there is a possibility that underserved communities, who may not be influenced by the dominant wilderness concept or the long historical debate in the

wilderness community, do not necessarily perceive a conundrum and consider untrammelled to be perhaps less important than maintaining natural qualities.


This potential reframing, based upon the perceptions of underserved communities within the context of a single wilderness area, is not implying that the untrammelled element of the dominant wilderness concept should be discarded. Instead, with regard to wilderness stewardship (e.g., decision-making around threats facing wilderness, monitoring), knowledge that some underserved communities consider untrammelled landscapes to be potentially less important can be considered; this is a significant consideration if wilderness character is not viewed as some objective state on the ground but rather as a subjective view of our human interactions and relationships with a landscape designated as wilderness (Cronon 1996).

Conclusion

This study aimed to expand our understanding of wilderness character by exploring underserved communities' relationships with wilderness and perspectives on wilderness character in MSD. Several key findings emerged. First, interviewees described a reciprocal relationship with the Everglades that included several benefits derived from MSD that transcend wilderness boundaries. Second, participants expressed positive perceptions of wilderness character that spanned communities, identities, and lived experiences. Third, these positive perceptions were not mutually exclusive of discussion around the colonial legacy of the wilderness construct; therefore, we highlight the value in more nuanced discussion that aims to create opportunities around how the full suite of American people perceive wilderness. Fourth, it is important for wilderness managers to consider the value in explicitly acknowledging the colonialist legacy in volunteer recruitment materials and stewardship opportunities and consider providing more diverse stewardship opportunities that may be more attractive to underserved communities. Lastly, from the perspectives of these interviewees, the wilderness character quality of untrammelled may be less important than retaining naturalness – historic ecosystem structure and function; therefore, intervention as a management action can be viewed in diverse ways and allow for more interpretations within the act.

Our findings contribute to a defined research gap in wilderness visitor use management literature by examining an urban proximate and coastal wilderness area; however, there are limitations. First, the fact that we were unable to include the perspectives of the Seminole and Miccosukee Tribes in South Florida in our findings is a significant limitation of this research. This was largely due to significant time constraints in producing this research and the inability of the study team to properly engage tribal members in a collaborative research process. Second, it was sometimes difficult for interviewees to distinguish between their perceptions toward EVER versus MSD, indicating a more entwined relationship between wilderness and protected areas.

Since the previous research on this topic is limited and we elected to refrain from comparisons between experiences, this study was exploratory and serves to lay groundwork for further

research efforts. Future research should focus on specific groups and populations to gain more depth; quantitative surveys could also be conducted across a larger population to gain more generalizable themes and trends. Additionally, future research can be conducted at different types of wilderness sites based on proximity to urban populations, geographic location, and other unique qualities to assess similarities and differences across the National Wilderness Preservation System. We hope this study serves as a catalyst for future research and management efforts to build and strengthen relations with affinity groups, which may help further connect underrepresented groups to wilderness areas across the system. 

ELENA R. THOMAS is a recently graduated master's student at the University of Montana and is currently a Wilderness and Wild & Scenic Rivers resource assistant with the Northern Regional Office, USDA Forest Service; email: elena.thomas@usda.gov.

JACLYN FOX RUSHING is a social scientist with the Aldo Leopold Wilderness Research Institute, USDA Forest Service; email: Jaclyn.rushing@usda.gov.

WILLIAM L. RICE is assistant professor of outdoor recreation and wildland management at the University of Montana in the Parks, Tourism, and Recreation Management program; email: william.rice@umontana.edu.

JENNIFER M. THOMSEN is an associate professor at the University of Montana in the Parks, Tourism, and Recreation Management program; email: jennifer.thomsen@umontana.edu.

CHRISTOPHER A. ARMATAS is a research social scientist with the Aldo Leopold Wilderness Research Institute, USDA Forest Service; email: christopher.armatas@usda.gov.

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A shrine in front of the sacred river in Osun Osogbo. **Photo Credit:** Carsten Ten Brink

Exploring Wilderness in Yorùbá Culture: A Journey of Understanding

by **EZEKIEL ADESAWE**

The Yorùbá are an ethnic group located in Nigeria with a rich cultural heritage that is expressed through various practices, customs, and traditions. These practices have influenced not only Nigerians but other African cultures and even the global African diaspora. This rich cultural heritage of the Yorùbá people is believed to be significant because it provides a means of transmitting cultural knowledge from one generation to the next. But there remain many gaps in knowledge about the contribution of the cultural practices of the Yorùbá people to biodiversity conservation. I explore traditional ecological knowledge to explain the agelong efforts and practices of the Yorùbá people toward biodiversity conservation. Examples of these practices and their efforts toward the conservation movement are presented. One is the tradition of forest conservation, where sacred groves are preserved as a symbol of cultural heritage. These sacred groves are seen as spiritual places, and the trees and other plant species found in these groves are protected by cultural taboos and beliefs. I explain how these practices preserve the Osun-Osogbo Sacred Grove, which is a UNESCO World Heritage Site and a living



Ezekiel Adesawe

Recognizing the value of these traditional ecological knowledge practices, it is essential to integrate them into modern conservation approaches. By building upon and incorporating these strategies, managers of protected areas can enhance the effectiveness and sustainability of conservation efforts.

testimony to the Yorùbá culture's contribution to biodiversity conservation. My conclusion is that while these practices have helped preserve sensitive parts of our environment up until now, there's a need to build upon and integrate these practices into modern conservation best practice. A case is also made for developing the practice into the educational system, not as a historical piece but as a relevant and valuable management strategy.

Cultural Sites Hold Ecological Value for Conservation

In the United States, federally designated wilderness offers flora, fauna, and people refuge from ever-expanding cities and industrialization. But for many other societies around the world, nature is deeply rooted in culture and spirit. Trees hold sacred value in cultures such as India and Ghana, inspiring the preservation of biodiversity in sacred groves (Ortsin 2015). In some parts of Africa, Indigenous people visit shrines dedicated to deities in mountains, forests, rivers, hills, and lakes (Olupona 2006). In Latin America, mountains are revered as sacred sources of water and healing. The majestic Mount Fuji in Japan has become a symbol of the country's pursuit of beauty and perfection (Bernbaum 1997).

Case studies from various regions exemplify the intricate interplay between nature and culture, shaping the perception, utilization, and management of these areas. For example, the Gikuyu people of Kenya, as well as the Meru, Luo, and certain Zulu clans in South Africa, consider the fig tree to be sacred. The Zulu clans attribute divination and fertility symbolism to the fig tree, leading them to offer sacrifices, perform rituals, and offer prayers in its proximity. Similarly, for the Gikuyu community, the fig tree embodies spirits, deities, and communal power. Consequently, cutting down or harming a fig tree is considered taboo among these communities, and it is strictly prohibited to use it as firewood. If a fig tree accidentally falls, rituals are conducted to appease the gods and safeguard the communities from their wrath (Mandillah and Ekosse 2018).

It is widely recognized that biodiversity conservation cannot be successful without involving the traditional communities residing in, not apart from, forested and other natural landscapes (Solomon et al. 2007; Berkes et al. 2000). Cultural sites, especially sacred sites maintained by Indigenous people, hold ecological uniqueness and importance for conservation at various scales (Salick et al. 2007). Indigenous communities around the world attribute religious significance to headlands, springs, trees, and forests, often incorporating ecological, conservation, and sustainable development strategies into their spiritual beliefs (Johnson 1992). Hence, numerous studies have highlighted the role of Indigenous knowledge and cultural beliefs in biodiversity conservation. These success stories emphasize the need for protected area managers to not only base their interpretation, management, and conservation efforts on scientific research and practice but also on deeply held spiritual, cultural, and aesthetic values (Bernbaum 2018).

Sacred groves are often small, forested ecosystems (Oyelowo et al. 2009) that have historically been protected by local communities as an integral part of traditional resource conservation systems around the world. These groves serve as refuges where endangered species of animals



Figure 1 - Yoruba traditional drummer at the 2023 Osun Osogbo Festival and devotees of the Osun River goddess at the festival. Photo by Sikiru Obarayese.

and plants can persist (Hughes 2006). Sacred groves consist of strands of trees or forest patches that local or Indigenous communities protect primarily due to their religious beliefs and rituals that have been passed down through generations (Meena and Singh 2012). They serve as havens for rare and endangered species and represent remnants of primary forests untouched by local communities, who believe that deities reside within these sacred trees or forests (Khumbongmayum et al. 2004).

This paper delves into the invaluable contribution of Yorùbá cultural practices in the preservation and subsequent recognition of the Osun-Osogbo Sacred Grove as a UNESCO World Heritage Site. While heritage sites and wilderness areas are typically distinct concepts, the Osun Osogbo Sacred Grove stands as a unique case where they intertwine. Unlike

most heritage sites, which primarily focus on cultural, historical, or natural significance, the Osun Osogbo Sacred Grove embodies both cultural and biodiversity conservation. Despite significant visitation during the annual Osun Osogbo Festival, which celebrates the grove, the Yorùbá people have employed their age-long practices to ensure the preservation of this natural heritage. Their ancestral wisdom and sustainable resource management techniques have kept the grove and its resources from complete degradation (Oladipo et al. 2021).

This intimate relationship with the Osun Osogbo Sacred Grove highlights a profound connection between Indigenous communities and the wilderness. It serves as a testament to the mutual benefits and coexistence that can be achieved through cultural practices rooted

in respect, knowledge, and harmony with nature. This exceptional case demonstrates that in this part of the world and for most Indigenous areas where cultural practices remain, Indigenous people benefit wilderness and conservation. Involving and integrating their traditional practices becomes essential for the sustainable management of the grove and its resources. Also, there exist some unscientific actions that might not be sustainable. I make a call for Indigenous traditional practices and knowledge systems to be receptive to modern management strategies for preserving what is left of the Osun Osogbo Sacred Grove.

The Yorùbá Culture Is Entwined with the Environment

The Yorùbá ethnic group, primarily located in southwestern Nigeria, encompasses both a people and a language known as Yorùbá. Due to historical factors such as the trans-Atlantic slave trade and commerce, the Yorùbá people and their language have spread to other West African countries and to the Americas, Brazil, and Cuba, among others (Mullen 2004).

The Yorùbá are one of the largest cultural groups in Africa, with approximately 40 million individuals worldwide. They have a rich history of living in advanced urban kingdoms for more than 1,500 years, developing a robust economy through farming, trading, and artistic production. Their artistic traditions, including woodcarving, sculpture, metalwork, textiles, and beadwork, are highly distinctive and renowned (Adejumo 2023).

The early history of the Yorùbá is surrounded by diverse myths, many of which revolve around Odùduwà, considered the quasi-mythical ancestor of the Yorùbá people. According to these myths, the various Yorùbá subgroups are believed to have descended from Odùduwà (Adekola 2021). The town of Ife holds particular importance in many of these mythological narratives. The Yorùbá culture encompasses distinct ways of life, evident in their dietary system, socioeconomy, political organization, music, religion, moral values, customs, traditions, and language (Adekola 2021). While the Yorùbá culture has experienced changes over time, certain practices have contributed to the conservation movement.

Hunting played a prominent role in Yorùbá society, as hunters were highly respected members of their communities. Initially, hunters used traps made from roots and fibers to catch animals, but later, iron implements were introduced for trapping larger game. However, certain animals were considered off-limits for hunting, and hunters were required to perform specific rituals if they accidentally killed these mysterious game animals (Adekola 2021).

Taboos exist among the Yorùbá, forbidding certain groups of people from consuming specific food items. For example, some individuals are prohibited from eating snails, twin bananas (Ogede Ibeji), and monkeys. These taboos extend beyond food and encompass the protection of forests as sacred spaces (Igbó àiwọ or Igbó ẹbọra) to restrict access and prevent environmental destruction. The observation of these taboos serves to preserve the environment (Babalola 2011).

The Yorùbá have various deities such as "Oya" (wind/storm), "Ifá" (divination or fate), "Eleda" (destiny), "Orisha" or "Orisa Ibeji" (twin), "Osanyin" (medicines and healing), "Osun" (goddess of



Figure 2 - The palace gate to the sacred grove in Osun Osogbo. Photo by Omoeko Media.

fertility, protector of children and mothers), and "Sango" (God of thunder) (Babalola 2011). These deities have designated places of worship, which can be located within towns or forests. When situated in forests, these shrines are protected. Nonadherents are forbidden from entering, except during open festivals that occur once a year, limiting human use of these areas.

Another integral aspect of Yorùbá culture is the celebration of festivals. Festivals bring diverse people together at specific times of the year to commemorate important historical events, whether related to ancestral achievements, human-deified figures, or living

individuals. These festivals serve as a reflection of individual or collective efforts, and they contribute to the preservation of cultural practices (Fálẹ̀yẹ 2021).

Some of these early cultural practices led to the designation of groves, natural areas that serve as abodes for a category of divinities. For instance, the myriad spirits that populate the world of the Yorùbá are associated with hills, mountains, rivers, rocks, caves, trees, brooks, lakes, and thick forests.

Osun Osogbo Sacred Grove Has Withstood the Test of Time

The Osun Osogbo Sacred Grove, located on the outskirts of Osogbo in southern Nigeria, is one such sacred grove and is considered one of the region's last remaining primary high wilderness areas. It is recognized as the dwelling place of Osun, the goddess of fertility and one of the Yorùbá pantheons of gods. Within the grove's landscape, meandering rivers are adorned with sanctuaries, shrines, sculptures, and artworks dedicated to Osun and other deities. This sacred grove, now seen as a symbol of Yorùbá identity, stands as one of the few remaining groves in Yorùbá culture, bearing witness to the historical practice of establishing sacred groves outside settlements (UNESCO 2005).

The Osun Osogbo Sacred Grove is a culturally evolved landscape that has withstood the test of time, leading to its designation as a World Heritage Site. It spans approximately 75 hectares and is characterized by rain-forest vegetation typical of West Africa, boasting more than 400 plant species, about 200 of them with medicinal properties, as well as more than 40 different tree species and critical wildlife, including mona and white-throated monkeys (Osaghale, Omisore, and Gbadegesin 2014). The dense wilderness area within the grove represents one of southern Nigeria's last primary high biophysical concentration vestiges. Flowing through the wilderness is the river Osun, regarded as the spiritual abode of the river goddess. Forty shrines, sculptures, and art pieces dedicated to Osun and other Yorùbá deities are situated within the sanctuary. Many of these structures have been erected in the past 40 years. Additionally, the grove includes two palaces, five sacred sites, and nine worship points located along the riverbanks, each with designated priests and priestesses (UNESCO 2005). Initially declared a National Monument in 1965, the grove's protected area was expanded in 1992 to encompass the entire 75 hectares. Recognizing its significance, the Osun Osogbo Sacred Grove was inscribed on the UNESCO World Heritage List on July 15, 2005 (Okonkwo and Eyisi 2018).

The community's traditional responsibilities and cultural rites are carried out through the Ataoja (king) and his council, known as the Osogbo Cultural Heritage Council. Various traditional practices are employed to safeguard the site from threats, including traditional laws, myths, taboos, and customs that forbid activities such as fishing, hunting, poaching, tree felling, and farming (UNESCO 2005). Forest preservation within the Osun Osogbo Sacred Grove system is ensured through the implementation of taboos, rituals, dedication of the forest to deities, government regulations, and the presence of grove guards. Local communities, priests, and traditionalists play significant roles in conserving the grove, with rituals serving as a fundamental means by which Osun priests preserve the grove's biological and cultural features.

The perception of wilderness among the Yorùbá people differs from the Western perspective. While the Western view often associates wilderness with uninhabited and untouched areas for recreational and preservation purposes, the Yorùbá people hold a distinct understanding. For them, wilderness is not only a designated space for communal enjoyment and biocultural conservation but also an ancestral abode. This belief is evident in the presence of shrines within



Figure 3 - The Asipa Ode – Ataja of Osogbo Land at the 2023 Osun Osogbo Festival. Photo by Yakubu Atanda.

certain wilderness areas, symbolizing a connection between the Yorùbá people, their ancestors, and the wilderness. In addition, wilderness areas have traditionally served as important sites for rites of passage and the preparation of younger generations, particularly young males, for their future roles. During these formative experiences, young males would join older men on extended hunting expeditions that could last for days or even weeks. These expeditions served as opportunities to impart valuable skills, such as strength, resilience, and the ability to provide for oneself and the community. The wilderness became a classroom where knowledge

was passed down through generations, ensuring the continuity of critical cultural practices.

To preserve the significance of these areas, specific practices and customs were established. These practices included rituals, taboos, and guidelines that regulated human activities within the wilderness. Such measures were put in place to maintain a harmonious relationship between the Yorùbá people and the wilderness, respecting the spiritual and cultural dimensions associated with these spaces.

Traditional Ecological Knowledge Deeply Rooted in Local Culture

Wilderness is not a separate entity; it is a part of the larger interconnected mosaic that interacts with and enhances other elements. Human use is not excluded from wilderness; in fact, wilderness is a concept created by humans and a form of human use. However, for wilderness to fulfill its purpose, it must maintain its integrity, which requires excluding certain types of human activities (Hughes 2006). Traditional knowledge systems and practices embedded in traditional cultures have become the tools for ensuring that wilderness remains preserved, as Rao (1996) suggests. Therefore, the survival and preservation of the Osun Osogbo sacred grove in its pristine state is a testament to the Yorùbá people's traditional ecological knowledge and their appreciation for the wilderness that includes them and their cultural values and worldviews.

In the words of Berkes (1999), Traditional Ecological Knowledge (TEK) encompasses a growing reservoir of knowledge, customs, and convictions that develop through adaptive processes and are handed down from one generation to another. Ugandan scholar Dani Waded Nabudere (2001, p. 140) highlights that TEK is deeply rooted in the customs, institutions, and rituals of communities, as well as in practices such as prophecies and divinations.

TEK encompasses the understanding of the relationships between living beings, including humans, and their environment. Studies have documented how local ethnic groups have developed close interrelationships with local animals, plants, and forests, forming distinct Indigenous knowledge systems and traditional cultural beliefs (Babalola 2011). This is why Tamale (2020) emphasizes the need for TEK, because it fosters self-reinforcing institutions that operate autonomously, without the need for external regulation or the imposition of authority.

For the Yorùbá people, traditional ecological knowledge is conveyed through poetry, proverbs, tales, taboos, festivals, and superstitions, serving as effective means of passing down knowledge across generations. Some of these cultural tools have contributed to wilderness preservation in some areas of Yorùbá land. Harnessing these traditional taboos could contribute to achieving global sustainable development goals (Adejumo 2023).

While it is challenging to draw clear boundaries, traditional ecological knowledge generally differs from Western scientific ecological knowledge in several ways. Traditional ecological knowledge is deeply rooted in local culture, and management practices are adapted to the specific area. The resource users themselves act as "managers" and identify themselves as members of a local community rather than as individual scientists or government officials accountable to external authorities. Traditional systems often have a solid moral and ethical framework, with no distinction between nature and culture. In many traditional cultures, nature is considered sacred (Shepard 1973).

However, it is essential to acknowledge that tradition is not inherently virtuous. Some traditional practices and belief systems may not be adaptive or may lack a conservation ethic despite detailed environmental knowledge (Callicott 1994). There have also been instances of misapplications of Indigenous knowledge leading to problems. Nevertheless, traditional ecological

knowledge has proven to be applicable to wilderness preservation. In fact, it holds great promise for providing valuable insights and applications if it is used in the appropriate context.

Traditional Wisdom with Scientific Advancements Can Address Challenges

Cultural traditions across various communities have developed unique and effective strategies for conserving wilderness areas. These strategies are grounded in a deep understanding of the local environment and what it means to them as a people. This is why certain practices have proven successful in ensuring the long-term survival of key species, protecting habitats, and maintaining the overall health of ecosystems. They encompass diverse practices, such as sustainable resource management, habitat preservation, regulated hunting and fishing techniques, the establishment of sacred groves, and the enforcement of cultural norms and taboos that limit harmful human activities.

Recognizing the value of these traditional ecological knowledge practices, it is essential to integrate them into modern conservation approaches. By building upon and incorporating these strategies, managers of protected areas can enhance the effectiveness and sustainability of conservation efforts. Traditional knowledge offers valuable insights and approaches that complement scientific understanding, creating a more comprehensive and context-specific approach to wilderness conservation.

In addition, it is crucial to incorporate these

traditional ecological knowledge practices into the educational system. By doing so, we can ensure that future generations know these conservation strategies and understand their relevance and significance in contemporary conservation efforts. By integrating traditional knowledge into curricula and educational programs, we empower individuals with the traditional understanding to actively participate in conservation and become responsible stewards of their environments.


This can foster a more inclusive and holistic approach to biodiversity conservation and allow drawing from the wisdom and experiences of different cultures, combining them with modern scientific advancements. The result is a more effective and culturally sensitive approach to conserving biodiversity, preserving cultural heritage, and securing a sustainable future for both ecosystems and communities.

Also, it is essential to acknowledge that specific unscientific actions may pose threats to the sustainability of a wilderness area such as the Osun Osogbo Grove. For instance, washing done during the festival right on the riverbank of the Osun Osogbo Grove has continued to increase the toxins in the river. This action is harmful to the aquatic species. However, with modern practices, this can be corrected. In fact, with the strengthening of the cord between modern and traditional practices, the grove can be better preserved. For instance, the use of dispersal and zoning techniques as well as monitoring equipment, are crucial for preserving and safeguarding the grove's remaining natural and cultural treasures.

While Indigenous traditional practices have



Figure 4 - The Arugba (Sacred Calabash carrier) during the procession to the sacred river. Photo by Sikiru Obarayes.

played a significant role in wilderness conserving the grove over the centuries, embracing modern management strategies can provide additional tools and insights for effective preservation. This can include adopting sustainable resource management techniques, zoning, reservation techniques, implementing monitoring and surveillance systems, and engaging in collaborative research efforts with scientists and conservation experts. 

EZEKIEL ADESAWE is a master's student in the Department of Parks, Recreation, and Tourism Management at Clemson University. His research interests are outdoor recreation, youth development, wildlife, and conservation management; email: eadesawe@gmail.com

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Amazon Rainforest. **Photo credit:** Hans Schwarzkopf from Pixabay.

Digital Reviews:

Patrick Kelly, Media And Book Review Editor

Indigenous Struggles to Defend Their Forests and Worlds in Brazil: a Review of NatGeo's *The Territory*

by RAYNA BENZEEV, DIEGO MELO, and DEVON REYNOLDS



Rayna Benzeev



Diego Melo



Devon Reynolds

The Territory (2022), a National Geographic (NatGeo) film, provides a glimpse into the Indigenous fight to defend lands in the Brazilian Amazon. Through a vivid film style that evokes walking amongst those who traverse the forest, viewers become members of the story by piecing together the mysteries underlying land grabbing and deforestation. The protagonists, the Uru-eu-wau-wau people, resist invasions from all sides like the steadfast leaf-cutter ants that persistently march through the jungle. In this way, wilderness is conceptualized as a place where ecosystems and culture can coexist. In stark contrast, settlers make claims to territory in a fast-paced and industrial wild-west landscape, fueling the march of extractive technology that expands settler colonialism. As viewers are guided to piece together the global significance of land grabs and deforestation via large-scale satellite time-lapses and scenes of burning landscapes, NatGeo invites us to honor life and support Indigenous struggles to defend their worlds.

For the Uru-eu-wau-wau, technology is the primary defense tool employed in the war against Indigenous land. Contrary to the misconception that Indigenous peoples are ancient beings that live entirely removed from society, *The Territory* illustrates how the Uru-eu-wau-wau defend their claim to the land through advanced technologies. Drones, GPS devices, and film equipment allow them to broadcast their stories through the documentary itself. In fact, the gaze behind the camera shifts dramatically when a film crew made up of members of the Uru-eu-wau-wau people reclaim the film and become the filmmakers. In response to the COVID-19 pandemic, the Uru-eu-wau-wau excluded all outsiders from their lands, including NatGeo filmmakers—which significantly transformed the narrative. The film shifts from semiposed shots of landscape, people, and forest wildlife to shots that provide direct evidence of invasions to be presented to the outside world. This reversal of the gaze, where the Uru-eu-wau-wau become the creators of their own story, challenges stereotypes from outsiders that perpetuate romanticized views of Indigenous ways of living and being.

The film adds a layer of novelty to the deforestation story by zooming intimately into the lives of multiple characters from diverse and sometimes conflicting vantage points. Viewers are shown the firsthand intricacies of the lives of a persevering activist of Indigenous rights and territorial claims (Neidinha), a diplomatic settler attempting to legally squat on Indigenous land (Sergio), a settler attempting to illegally claim Indigenous land (Martins), as well as members of the Uru-eu-wau-wau, including a bold teen leader (Bitaté) and the tactical leader of the autonomous Indigenous guard (Ari). By taking a deep dive into life on the Amazon frontier, viewers are exposed to the complexities and competing motivations acting on the land including those relating to lifestyle, religion, rural/urban dynamics, and aspirations for conquest.

Despite its novelty, the film's strategy of solely promoting firsthand and observational accounts of land grabbing and deforestation leaves out an essential part of the story. By presenting a "both sides narrative," *The Territory* is unable to show how wealthy and powerful actors drive Amazonian deforestation. It is often the agribusiness owners that cause oppressed people to be pitted against each other and to risk their lives, while the powerful have very little to risk. Many end up being exploited, while the exploiters remain invisible. In other words, the colonial system that feeds upon intense competition for the privatization of lands remains unaddressed at a systemic level. Because wealthy landowners driving land grabs remain hidden in the film, viewers could mistakenly leave believing a simpler story, that deforestation is caused by marginalized actors who each deserve their own access to land. While the film provides a glimpse of the role that regional Brazilian elites play in the deforestation process through local electoral politics, the film

could have provided a more in-depth investigation.

The film additionally stimulates viewers to rethink the way that society prioritizes production and efficiency of land. At one point in the film, Sergio (a settler) says, referring to the Uru-eu-wau-wau, "They don't farm, they just live there," implying that using land for farming is the only legitimate use of land. By making production the goal, colonial settlers promote a narrative where only those that produce on land deserve rights to land. Indeed, Brazil's legal code has long enshrined this philosophy, supporting land grabbers' achievement of land titles through squatting on and cultivating the land for a long enough time. As Martins (another settler, working through illegal means) says, "Eventually the government will support us but only after we've done the work." By arguing that the Uru-eu-wau-wau have so much land that "they can't even walk in it," settlers are able to use production as a tool to justify their own land claims and to perpetuate further acts of settler colonialism. Learning about this process leaves viewers with the question: Is the Indigenous way of being with land, one focused on defense, protection, and small-scale extractive use, still valid even though it does not fit cleanly into the capitalist economic model? In 2023, there must be no room for ambiguity. Indigenous peoples' struggles for land and sustainable resource use, like the Uru-eu-wau-wau's struggle, lead the way in how we might survive the behemoth of climate change and capitalism's voracity.

Supporters of Indigenous rights in the Brazilian Amazon, however, have no choice but to risk their lives and the lives of their families. Neidinha (the environmental activist) experiences a deadly kidnapping threat against her daughter because of her work supporting Indigenous defense. Ari is killed during the course of the film and his murder remains unsolved today. In a context where there is no police enforcement of Brazilian law and no political support on the ground, brave individuals put their lives in grave danger as they support Indigenous rights. As noted in the film, the Indigenous affairs agency that is supposed to provide oversight is like "shit in water." When allies are silenced, the Uru-eu-wau-wau are left even more alone in defense of their forest, an island amidst the sea of pastures and invaders.

Although the film is a success story for the Uru-eu-wau-wau, who were able to form a monitoring team that seamlessly arrested invaders, there are still far more invaders than Indigenous people and outside pressures are high. The only 180 remaining Uru-eu-wau-wau had to grapple with COVID-19, which killed 5% of the entire territorial population in just 10 days. In the future, new emerging threats could render Indigenous peoples even more vulnerable. As the film says, "It would be like a genocide for them."

By highlighting a local problem with global relevance, *The Territory* ignites a call to action to support Indigenous autonomy and territorial rights. Despite the success of the Uru-eu-wau-wau in their monitoring efforts, it is a massive risk to form and maintain such a team, and many other Indigenous communities may not want to take on such a task. As the film showed, when the Brazilian government failed to enforce the Constitution, which guarantees the rights of Indigenous people to territory above even federal land claims, illegal deforestation and land grabs were able to take over. The film therefore becomes a call to hold the government, organizations, and police forces responsible to do their jobs, so that other Indigenous leaders and allies across Brazil do not

have to risk their lives to keep their livelihoods.

Although there have been some improvements for Indigenous rights since the 2022 Brazilian election, the onslaught against Indigenous land claims remains across Brazil today. The fight for land in the ever-expanding Amazon frontier is nowhere near over. If invasions continue unfettered with governmental complicity, the perverse tactic of genocide via deforestation will continue to expand. While small but mighty Indigenous monitoring teams and their allies will fight on, *The Territory* pushes us to make this struggle our own. Climate change makes us all dependent on Indigenous success.

The Territory is available on Hulu and Disney+.

RAYNA BENZEEV is a postdoctoral researcher at the University of California–Berkeley with a focus on reforestation and land rights for Indigenous and traditional communities in Brazil; email:Rayna.benzeev@berkeley.edu

DIEGO MELO is a queer political ecologist and a PhD candidate in geography at the University of Colorado–Boulder; email:diego.melo@colorado.edu

DEVON REYNOLDS is a PhD candidate in environmental studies at the University of Colorado–Boulder, and works to support environmental justice movements through research, writing, and policy work; email:devon.reynolds@colorado.edu

Facilitated by



717 Poplar Avenue
Boulder, CO 80304 USA

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International Journal of Wilderness

December 2023 Volume 29, Number 2



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