

Impacts, Ethics, and Perceptions of Recreation in the Greater Yellowstone Ecosystem

A report for the Northern Rockies Conservation Cooperative

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INTRODUCTION

The Greater Yellowstone Ecosystem (GYE) has long been appreciated for its dramatic beauty and alluring landscapes. In 1872, Yellowstone National Park was established as the first national park in the world in order to protect a portion of this region. Impressive geologic features, iconic forests, and spectacular waterways have drawn outdoor recreationists to the GYE for decades. In recent years, however, a surge in outdoor recreation has put pressure on the ecosystem. This has challenged land managers to balance the demand for recreation with the needs of wildlife.

Through this project, which is a collaboration between the Northern Rockies Conservation Cooperative (NRCC) and the Ucross High Plains Stewardship Initiative at the Yale School of the Environment, we aimed to understand recreation ethics within the GYE in order to help managers better address recreational impacts and find compromise for both the community and ecosystem. We explored trends, conditions, and projections of recreation behaviors and attitudes in the Greater Yellowstone Ecosystem in an attempt to uncover the recreation ethic of the Jackson community. We also explored variation that exists between individuals and recreationist groups, views recreationists hold regarding recreation access and growth, how recreationists perceive their own impacts and how these perceptions influence their own recreational behaviors.

The result of this synthesis is meant to help guide the establishment of a much more intensive and thorough research initiative. Our project only reviewed a very small sample of the population and did not include many important voices in this conversation. The vast majority of our interviewees live around the Jackson area, and most are directly involved in some type of conservation work. A more thorough review would include participants from communities throughout the entire region, including the Wind River Indian Reservation, as well as individuals with a wider variety of backgrounds and relationships to recreation in the region.

Standpoint clarification

We are three students at Yale College and the Yale School of the Environment who are interested in wildlife and land conservation but, at the time of writing, do not live in this region. We understand that as outsiders, we do not have the same grasp of this region's nuanced social and ecological trends. We hope this report will be seen as a helpful suggestion from an ethics perspective.

Land acknowledgement

The Greater Yellowstone Ecosystem is the ancestral homeland of many Native communities, some of whom still live in the region today. This area is important to the Assiniboine and Sioux,

Blackfeet, Cheyenne River Sioux, Coeur d'Alene, Comanche, Colville Reservation, Crow, Crow Creek Sioux, Eastern Shoshone, Flandreau Santee Sioux, Gros Ventre and, Assiniboine, Kiowa, Lower Brule Sioux, Nez Perce, Northern Arapaho, Northern Cheyenne, Oglala Sioux, Rosebud Sioux, Salish and Kootenai, Shoshone–Bannock, Sisseton Wahpeton, Spirit Lake, Standing Rock Sioux, Turtle Mountain Band of the Chippewa, Umatilla Reservation, and Yankton Sioux (Native Lands, NPS 2020).

METHODS

Today, the GYE hosts a diversity of types of outdoor recreation. Within the National Parks, the most common forms of recreation include highway sightseeing and non-mechanized recreation, including backcountry camping, hiking, and fishing. Outside of the National Parks, such as in the Wyoming Range in the southern extent of the GYE, off-highway vehicle (OHV) use and hunting are common. This patchwork of dominant recreation types overlay a range of competing and additional land uses ranging from ranching to mineral extraction to timber harvesting. As such, it is difficult to view human behaviors in the GYE in isolation, due the interconnectedness of the natural landscape.

For this project, we pay special attention to the cultural and physical landscape surrounding Jackson, Wyoming. Of nine interviews conducted, seven spoke predominantly of their experiences within the Jackson area. The other two interviewees were located in Bozeman and Lander.

In order to better understand the scope of recreation ethics within the GYE, we worked with NRCC to identify individuals who are engaged in both recreation and conservation. Our participants spanned a wide range of ages and years spent in the region. In total, we interviewed nine residents of the GYE who each had concern for the environment and also participated in some form of outdoor recreation in nature. We asked a standardized set of questions (Table 1) to identify trends amongst participants, but also encouraged them to shift the conversation in the direction of their interest or focus. We recorded and subsequently transcribed all interviews for analysis.

Table 1: The standard set of questions we asked all participants (some questions were omitted on a case-by-case basis if the participant answered them on their own).

Question 1:	Can you explain your connection to the Greater Yellowstone Ecosystem?
Question 2:	What types of recreation do you engage in? What is your relationship to these recreational activities?
Question 3:	What are the reasons that you recreate?
Question 4:	Why do you think others are recreating?
Question 5:	Have recreation behaviors changed during the time that you have lived here? <ul style="list-style-type: none"> a. Have attitudes towards recreation changed during the time that you have lived here? b. If recreation has changed, what do you think has caused these changes in behaviors and/or attitudes?

Question 6:	What are the benefits of recreation? For yourself? For your community?
Question 7:	In your opinion, are there any harms caused by recreation and if so, how do those manifest?
Question 8:	Do different types of recreation influence the environment in different ways? If yes, how so?
Question 9:	What changes would you make, if any, in the way you recreate based on the potential harms of recreation? a. If you make any changes, do they enhance or detract from your recreation experience?
Question 10:	Should there be any limits or restrictions on recreation? a. What do you think is the best way to establish limits, if at all? b. If there should be restrictions, who should establish limits and monitor them?

To understand trends throughout our interviews, we broke down the interviews by question and compared answers between participants. We then used these comparisons to help inform our analysis and recommendations detailed in the following sections.

ANALYSIS

Results

The primary forms of recreation participants engage in are backcountry skiing, resort skiing, cross country skiing, trail running, fishing, backpacking/hiking, mountain biking, climbing, white water kayaking, and flatwater kayaking. Of the activities listed, backcountry skiing and climbing are the most popular activities (Figure 1).

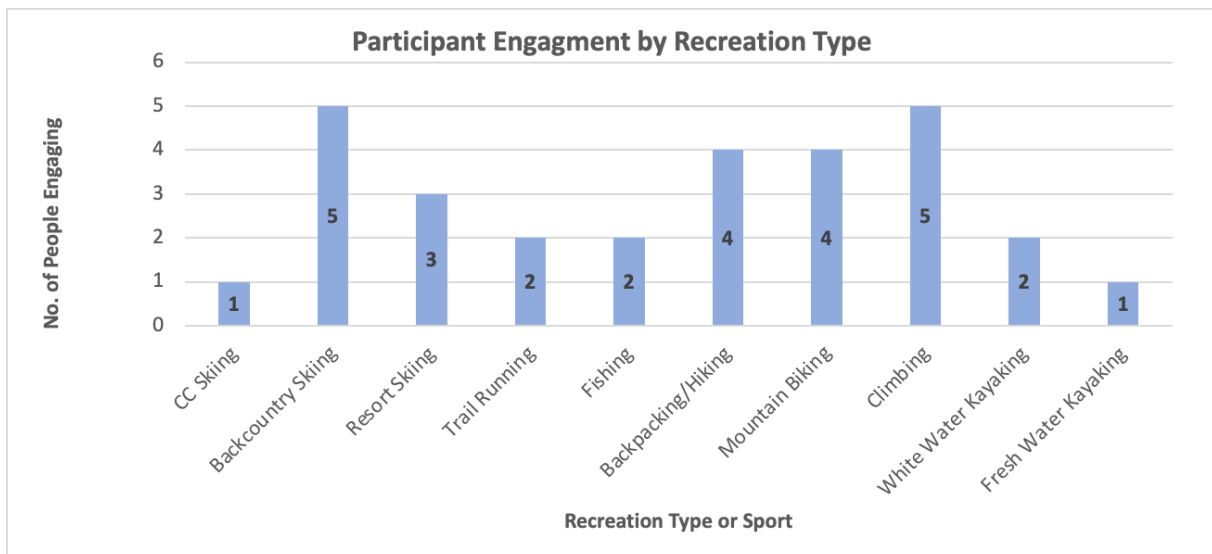


Figure 1: Participant engagement in outdoor recreation activity type in Jackson, Wyoming among nine interview subjects, as self-identified

Reasons for recreation

By and large, connection to nature is the most common reason for engaging with recreation, according to our participants. This can occur in many different ways: learning about natural processes, feeling a part of something bigger than oneself, and exploration. However, different sports tend to correlate with different ways of interacting with nature. Those who recreate for solitude, silence, and a slower pace of life tend to prefer lower-impact activities, such as hiking, flat-water hiking, and cross country skiing. Those who recreate for adrenaline, mental challenge, and adventure tend to prefer sports like backcountry skiing, mountain biking, and climbing (though this does not apply vice versa).

Nearly all participants also noted the importance of recreation for their mental health. Many participants acknowledged an “overarching peace” and sense of solace that they receive when spending time outdoors, and how it is something they do to feel happy, de-stress, and find personal balance in life. Some participants specifically addressed the calm and solitude that comes from the wilderness, while others discussed how it allows them to connect more intimately with friends and have thoughtful conversations. On the whole, all of these reasons for being outside and what participants gained from their outdoor experience came back to one central theme: it allows people to develop an emotional and spiritual connection to nature and place. Ultimately, recreation is a vehicle through which participants develop this profound connection and appreciation for the landscape and wildlife. As one participant notes, it allows one to feel part of the land: to really *be* in nature.

Another reason behind recreation is the social value that it holds. That nearly all participants acknowledged engaging in three or more types of recreation highlights the pervasiveness of recreation in the lifestyle of GYE residents. It is important to note that we interviewed people who primarily work in conservation and land management, thus it is likely that they are more inclined than most towards a life outside. Nevertheless, the observation of outdoor recreation’s ubiquity remains relevant. This is particularly true of Jackson, Wyoming, where most of our participants reside. One participant discussed how they perceived the town to be “recreation-crazy” and how there is an underlying assumption that everyone recreates. For instance, they described how as conversation openers, people discuss their recent outdoor pursuits, like where they skied that day or whether they caught anything on a day out fishing. In short, recreation in Jackson is considered by some to be a cultural norm.

Outdoor recreation is something that many GYE residents are already passionate about, and by recreating in a hub for these sports, people are able to find a community of fellow recreators that connects them to their sport even more. Some participants discussed how in the peak months for their sport, they are mostly only interacting with others who enjoy that same activity. One participant summarized this sentiment well, stating that recreation is a way to share activities you enjoy with people you enjoy.

Perceptions of other recreators

In our interviews, we also studied how members of the GYE perceived other recreators and their motivations to recreate. Many participants said they thought many others recreate because of simple routine and exercise, “throwing their mountain bike in the car after work to go complete their physical exercise and just hitting up a trail close to town... and krank out laps”. From data we collected, we found this to be inaccurate. Though some participants acknowledged that they used recreation for exercise and

physical challenge, they all cited this as secondary to the main reason they recreated, which was to feel connection to these spectacular places. However, it is important to acknowledge that most participants work in conservation or outdoor careers, so they likely have more of a respect and tie to the land than others in non-outdoor-related fields.

Nevertheless, perceptions, whether they are accurate or not, are important in how they inform narratives of a place. The perception that some people recreate only for the sake of exercise illustrates the pervasiveness of recreation as part of residents' daily routines. The notion that people recreate simply for exercise also connects to a development many participants highlighted when asked how they thought the GYE had changed over time. Numerous participants felt that there was a growing "nature in my gym" mentality in the area, a shift from the previous mentality centered around respect and reverence for the land.

On the whole, most participants responded that people tend to fall along a spectrum of motivations, with one end being purely exercise and routine, and the other end representing deep spiritual connection to nature.

A case study: focusing on mountain biking and climbing

In our analysis, we were particularly curious about whether there existed an overlap between certain sports or recreation communities. Ultimately, we found many correlations between sports. Most notably was the overlap between climbers and mountain bikers, as these were the two sports that most participants engaged in (Figure 2).

We found that many people outside of the backcountry skiing and climbing communities perceived that mountain bikers and climbers recreate because of the adrenaline and extremity of these sports. Though one might assume that is the most immediate connection between the sports, we found that this was not the case. Only about half of these participants acknowledged adrenaline as one of the many reasons they recreate outside. The strongest commonality between the motivations of those who enjoyed both climbing and mountain biking was a focus on exploration and adventure, exercise, and using the sport to connect with the land, same as most other outdoor recreators.

Oftentimes mountain bikers are portrayed as adrenaline junkies in discussions regarding conservation and land management. These findings may indicate that there are other reasons mountain bikers are recreating over thrill seeking. As one participant notes, there are perceptions of how one can connect to the land. In the eyes of some, this connection is not possible in more high-impact, adrenaline-based sports. Many participants challenge this stigma, engaging in these sports specifically because they allow them to connect to the natural world.

Role of mechanized recreation

When asked what types of recreation they engage in, none of our participants listed any engagement with motorized sports (e.g. electric mountain biking, snowmobiling, ATVing). Nevertheless, many of them noted an increase in mechanized recreation as the equipment has become more accessible and higher-tech. Participants particularly noted how improved technology of snowmobiles allows people to go further into backcountry more quickly than ever before. A number of participants expressed concern about the impacts of mechanized recreation on wildlife.

Mechanized recreation has clearly gone through drastic changes over the past few decades. With more people able to move quickly over far distances into the backcountry, there are a new set of threats posed to wildlife in the region.

Drivers of changing behaviors

Over the past few decades, changes in recreation behaviors have resulted in the growth and intensity of impacts. Respondents, whose residencies in the GYE ranged from six months to roughly fifty years, reflected on this change in various ways, attributing the changing scale of recreational impacts to two main categories: (1) improvements in technology, with minimal changes to attitudes; and (2) shifting norms, with substantial changes to attitudes. Interviewees primarily fell into one of these two camps, with little overlap between. Interestingly, perceived causes of changing behavior tended to correlate with the solutions proposed by interviewees.

The first group of respondents viewed technology as the primary driver of change. These interviewees directly referenced changes to backcountry ski gear, mountain bike equipment, and snowmobile capabilities as the significant sources of change, increasing the accessibility of the backcountry. Lighter, faster, and more accessible recreation technology, interviewees suggested, has inflated the number of miles traveled by recreationists and contributed to the growing number of recreators in the deep backcountry. The recent technological advancement of e-bikes, for one resident, also contributes to this growing permeation of wilderness. Another respondent acknowledged the shifting norms and ethics around recreation, but rather than sharing a perspective of dwindling consideration for ecosystems and increasing ignorance of recreational impacts, they offered a counterpoint in the decreased volume of litter in backcountry campsites from generations past. This anecdote supports an optimistic perspective of recreational impacts, where despite the exponential increase in visitors, some impacts may be declining due to a shifting “pack it in, pack it out” ethic.

Alternately, some respondents suggested that changes were fundamentally the result of a shifting recreation ethic. Many of these interviewees noted that the impacts of inadequate education or an exploitative conceptualization of nature were magnified by the growing popularity of recreation. Another interviewee saw the increasing role of technologically-assisted backcountry access as a product of changing ethics.

Personal recreation ethic: perceptions of individual recreational impacts and behavior modification

Through our interviews, we also looked at what personal recreation ethics are already held in the conservation and recreation community. Most interviewees gave remarks that were generally very casual, as if the well-known Leave No Trace guidelines were not a personal choice, but rather a pre-existing social expectation. Few interviewees saw their own actions to mitigate recreation impacts, if they take any, as sacrifices for conservation, and some reflected on their own choices to avoid sensitive areas, turn back to prevent wildlife disruption, or avoid certain types of recreation with pride and a sense of community well-being.

When asked about the perceived impacts of other recreators, interviewees rarely identified specific groups, and largely held positive views of other recreators. This may have been affected by the constraints of remote interviews, as well as trying to be professional. The few who did refer to other people’s behaviors as negative tended to categorize recreators by their sport, such as citing high mountain biking speeds as a danger to wildlife. Another interviewee said that Jackson’s high visitation numbers and

constant turnover of residents meant that a large portion of recreators were unfamiliar with responsible recreation ethics.

RECOMMENDATIONS & CONCLUSION

The intersection between prime recreation areas and critical wildlife habitat has caused a serious dilemma for land management in the Greater Yellowstone Ecosystem. In understanding recreationists' motivations for participating in their sports, we can better understand how to influence recreation trends and promote land sharing between humans and wildlife. Our participants' main motivations for recreation were connecting to nature, improving mental and physical health, adrenaline, adventure, and solitude. Through this sample study, we have found that recreationists of all types care about the environment and wildlife. Many of our participants felt this trend extended across the recreation community, while others were concerned that recreationists needed stricter guidelines.

We recommend a strategy that targets both recreationists' personal behavior and choices as well as management that limits areas of recreation. As noted above, recreation in this region is highly social and influenced by community. We therefore suggest educating receptive leaders in these communities about responsible recreation and promote a trend of mindful recreation from within recreation groups as opposed from outside of them. So too, social media has played an increasing role in recreation trends both in this region and around the world. Creating social media campaigns—through the proper channels—to raise awareness about the impacts of recreation could have a strong effect on behavior as well. However, even if every single recreationist modified their behavior to have a lower impact, the sheer number of recreationists in the region poses a problem in itself. For this reason, we recommend closing critical wildlife habitat to recreation as relevant and necessary.

Due to the limited scope of this project, it would be beneficial to conduct a more comprehensive series of interviews with participants from across the region and a wider diversity of backgrounds. This work is just the tip of the iceberg. Hopefully this upcoming summer of 2021, graduate students from the University of Wyoming will dive further into the work we have laid out here to create a fuller picture of the current trends influencing recreation ethics and give a better understanding of how they manifest within the GYE. We hope our findings can begin to inform a broader conversation about what recreation means to different people, how recreation has come to define Jackson, Wyoming, and whether it will in the future.

REFERENCES

National Parks Service. 2020. Yellowstone: Associated Tribes. Accessed at: <https://www.nps.gov/yell/learn/historyculture/associatedtribes.htm> Native Land. Accessed at: <https://native-land.ca/>