NSRC Progress Report 2021

Influence of Multiple Impacts on User Experience and Decision Making in the Northern Forest

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Project abstract

During the COVID-19 pandemic, recreation lands in the Northern Forest have seen a dramatic increase in visitors. While this has clear positive outcomes (revenue for communities, emotional and physical benefits for users), there are also challenges associated with increased use and crowding (ecological degradation, litter, waste, conflict, risk) that, when combined, interfere with user satisfaction and impact overall experience. Most studies to-date have addressed the ways individual impacts (parking or congestion on trails) inform user experience and decision making in forested outdoor recreation landscapes. Few studies have investigated the combined influence of these impacts on user experience and decision making in the context of user density, crowding, displacement, conflict, and risk and safety. This hinders our ability to develop holistic management strategies and crowd mitigation techniques in forested environments.

NSRC researchers will contribute to understanding the ways various impacts work together to inform the whole picture of user experience and decision making. This, in turn, will allow for more comprehensive management and mitigation strategies than management approaches based on a single stressor. This work

is widely applicable to forested areas of the northeastern United States and beyond. For this study, researchers will work in high-use areas of the Adirondack Park that provide outdoor recreational opportunities for health and wellness, receive high visitor volume, and may be at heightened risk because of increased visitation during COVID-19. A combination of field observation, surveys, and interviews will result in an analytical model that Park managers can use to simultaneously assess, and

more effectively mitigate, multiple impacts on site and user experience.



Summer traffic along 28N into the Central Adirondacks.

Summary of progress in 2021

In 2021, our efforts were focused on adjusting our project timeline, hiring a graduate student, and establishing a subaward to the University of Connecticut in order to account for geographic shifts and responsibilities in our research team. These actions allowed us to maintain the integrity of our project and keep the original scope of work intact despite the changes in personnel location and responsibilities.

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Problems or changes

In 2021, PI Vidon relocated to Reno, NV, which required shifts in the research team's individual and collaborative responsibilities. PI Vidon retains her affiliation with SUNY-ESF and will return to conduct field work with the research team, but co-PI Morzillo assumed greater responsibility as an on-site participant who will co-advise the graduate student at the University of Connecticut.

Plans for 2022

In the spring of 2022, the research team is focused on finalizing site selection and logistics for data collection. This will include final scoping of the sites, communicating with appropriate local authorities regarding signage and communication, and communicating with local networks of other researchers who may be conducting studies at similar times and sites in order to avoid redundancies. The research team is also finalizing data collection tools and schedules and preparing to submit the IRB application to Syracuse University's Office of Research Integrity and Protections for approvals.

Data collection will begin in the summer of 2022 and will be comprised of field observations (for parking access, density, and longevity), surveys (visitors and community members), and interviews (key stakeholders). Our graduate student will begin working in April 2022 and will participate in data collection over the summer. In addition, we have recruited and are continuing to recruit SUNY-ESF undergraduate students who will assist with this project in the Central Adirondacks (Newcomb). They will be housed at ESF's Newcomb location and may receive internship credit for participating in this research. Co-PI Hai will oversee this effort, assisted by PI Vidon.

Following this first field season, the research team will convene and complete our first round of data analysis during the fall of 2022. Following analysis, we will make any necessary adjustments to our instruments and prepare for follow-up data collection.



Crowded summit in the High Peaks. Photo courtesy of the Adirondack Council.