The COVID-19 pandemic has altered outdoor recreation behaviors in the United States for over one year. In an effort to continue gathering timely and relevant data on national outdoor recreation patterns, the Leave No Trace Center for Outdoor Ethics and its academic partners, The Pennsylvania State University and The University of Montana, conducted a four-phase study to offer guidance to land managers, recreation providers, and outdoor enthusiasts across the United States. The information contained here details key findings from Phase 4, occurring one year into the pandemic. By comparing results from April 2020 (Phase 1) and April 2021 (Phase 4), we provide a longitudinal perspective of how avid outdoor recreationists’ reported behaviors and perspectives are evolving with the ever-changing pandemic. In addition to examining differences between April 2020 (Phase 1) and April 2021 (Phase 4), the information here details how avid outdoor recreationists have been impacted by, and reacted to perceived influxes of new outdoor recreationists during the pandemic.

### Perceived impacts from new outdoor recreationists on avid outdoor recreationists during the COVID-19 pandemic

The majority of avid outdoor recreationists changed their behaviors due to perceived increases in visitation by other recreationists. Nearly 60% of April 2021 respondents indicated that they changed their outdoor recreation participation (changed the places they recreate, the frequency they recreate, and how they recreate) over the last year in response to an observed or perceived increase(s) in visitation by others in the place(s) they regularly recreated prior to the COVID-19 pandemic.

Of the majority of avid outdoor recreationists that changed their behaviors, many were displaced from recreating in their regular locations or at regular times. Respondents that noted changing behaviors and sensitivities to increased visitation by new recreationists, reported significantly higher levels of temporal and spatial displacement.

**Data collected over a two-day period beginning April 9th, focused on recreation trends as of 2021**

- **43%** of avid outdoor recreation respondents perceive that their recreation behavior will change in the long-term when the pandemic ends.
- **57%** indicated that their outdoor recreation behavior would not change in the long-term, following the World Health Organization’s official announcement ending the COVID-19 pandemic.

**Learn more at lnt.org/research-resources/leave-no-trace-covid-19-research**

**See full results at doi.org/10.31235/osf.io/p3yqg**

For more information contact Ben Lawhon at the Leave No Trace Center for Outdoor Ethics (ben@LNT.org) or Dr. Derrick Taft at The Pennsylvania State University (bdt3@psu.edu).

Authors: William L. Rice1, Ben Lawhon2, B. Derrick Taft3, Tim Mateer3, Nathan Reigner3, and Peter Newman3 (1The University of Montana, Department of Society and Conservation; 2Leave No Trace Center for Outdoor Ethics; 3The Pennsylvania State University Department of Recreation, Park, and Tourism Management)

*Statistically significant at a 95% confidence interval*