

In June 2021, the Pack Creek Fire burned over 9,000 acres in the La Sal Mountains outside of Moab, UT, devastating the local community and creating an immediate need for restoration action on the burned landscape. Preliminary restoration efforts performed by the US Forest Service in conjunction with a local non-profit organization, Rim to Rim Restoration, focused on lower elevation pinyon-juniper forests, with native plant seeding conducted in the fall of 2021. Although seeding is a common post-fire restoration strategy across national forests, results are often conflicting and the ability of these treatments to increase restoration success following a wildfire is not well understood. Therefore, this research project aims to directly test if hand seeding, in combination with other pre- and post-fire management activities, improves recovery of the pinyon-juniper forest understory.

Through a collaboration with federal agency researchers, university partners, and a local non-profit restoration organization, this project will revisit monitoring plots that were established in October 2021, just a few months after the fire occurred. Monitoring plots were established both in areas where pre-fire forest thinning was conducted and in areas where it was not. Many of these plots were visited in the summer of 2023, supported by funding from Canyonlands Natural History Association (CNHA), where we found that pre-fire treatments were directly impacting post-fire recovery. The requested continuation of funds from CNHA will enable us to hire and train skilled technicians to revisit established plots in the 2024 growing season to track pinyon-forest understory recovery and identify potential differences in soil stability. Additionally, we will investigate similarly located unburned pinyon-juniper forests to those that burned in the 2021 Pack Creek Fire within the Manti-La Sal Forest to help construct models of ecosystem trajectories. Continued findings from this study will be shared with regional forest service managers to help inform future policy and management decisions to increase the success of pre- and post-fire restoration efforts.