



Research Brief for Resource Managers

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The Mixed Impressions of Hikers in Post-fire Chaparral

Weill, A.M., L. M. Watson, and A.M. Latimer. 2020. Walking through a 'phoenix landscape': hiker surveys reveal nuanced perceptions of wildfire effects. *International Journal of Wildland Fire*. 11pp. [10.1071/WF19053](https://doi.org/10.1071/WF19053)

The portrayals of public opinion to wildfire are largely based on the surveys of homeowners living in conifer forests. This leaves out the opinions of most people, because most people do not live in forests and might only rarely visit a postfire ecosystem. Such large omissions in the broadly accepted public perception data led these authors (Weill et al. 2020) to conduct a unique case study in a chaparral ecosystem at the U.C. Davis Stebbins Cold Canyon Reserve; a (Winters, CA. They wanted to understand patterns in recreationalist, non-homeowner perceptions of wildfire in a non-forested ecosystem.

Two years after the 2015 Wragg Fire burned the Reserve, a restored public trail was reopened for use. Starting on opening day, volunteers were asked to fill out surveys both before and after hiking the postfire trail. The 10-minute questionnaires were meant to assess peoples' familiarity with fire ecology, fire management, and fire effects on the local landscape before hiking in the Reserve. The post-hike surveys aimed to rate and describe any changed perceptions of these fire topics after directly experiencing the recovering, post-fire environment.

Results from three overlapping groups of data: 465 pre-hike questionnaires; 436 post-hike

Management Implications

- In this case study, hikers were somewhat positively influenced by their hike in Stebbins Reserve (Figs.2,3). Overall, they seemed more engaged in the fire ecology of the non-forested, local landscape after experiencing it in person.
- Even though these volunteers generally understood the need for wildfire in fire-prone ecosystems like conifer forests, the post-fire chaparral landscape caused mixed feelings about the effects of the accidental, human-ignited Wragg Fire (e.g., Table 4).

questionnaires; and 217 matched, pre- and post-hike questionnaires showed that post-hike positive ratings were higher for every topic (Figs.2,3), but only the improved ratings of the hike itself were significant (Fig.2d). Transition matrices were used to illustrate how individuals starting with positive or negative perceptions changed their responses. Written responses to three open-ended questions (e.g., Table 4) were especially revealing in the emotional response and complex patterns of thinking.

Overall, most of the volunteers liked their hiking experience (66%), many were less enthusiastic but still positive (22%), and even fewer were neutral/mixed (6%), or completely negative (6%).

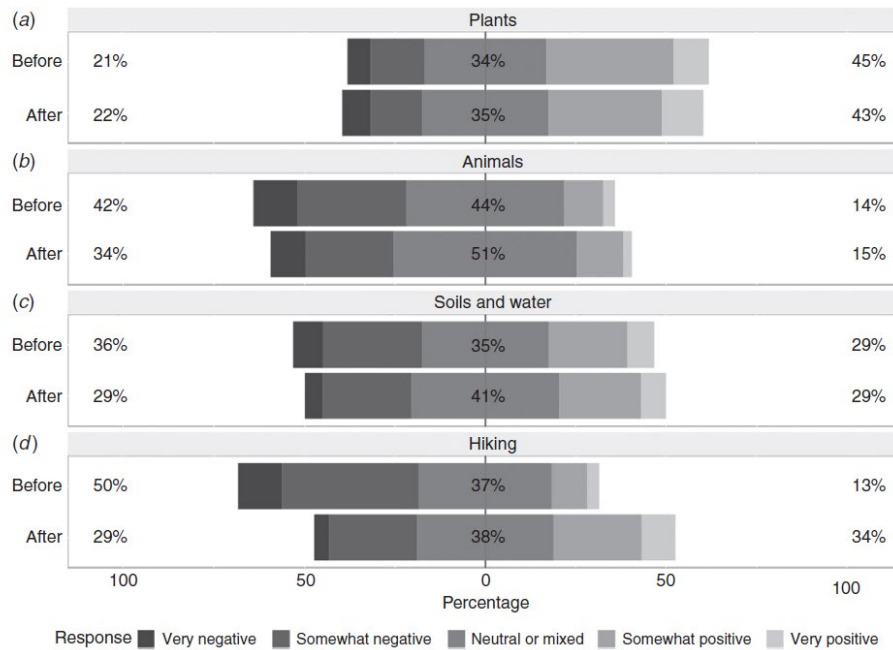


Fig. 2. Perceptions of wildfire effects at Stebbins Reserve before and after hiking in the recently burned reserve for matched before/after surveys, with percentage rating effects as either negative (left), neutral or mixed (center) or positive (right). Note: due to rounding, numbers may not total to exactly 100%.

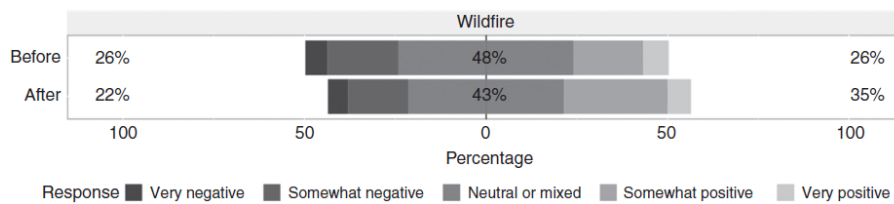


Fig. 3. Perceptions of wildfire in the USA before and after hiking in the recently burned Stebbins Reserve for matched before/after surveys, with percentages rating effects as either negative (left), neutral or mixed (centre) or positive (right). Note: due to rounding, numbers may not total to exactly 100%.

Table 4. Narrative themes in hiker responses to the post-fire environment. Common narrative themes expressed by responses to the question ‘describe the environment you saw today’ from 353 written responses (81% of 436 post-hike survey participants). Responses could be coded for more than one theme or none of the below themes.

Theme	Examples	Count
Renewal, rebirth, recovery and beauty	‘This area is restoring itself.’ ‘Awe-inspiring. Nature at its best!’ ‘Renewal in nature underway.’ ‘Phoenix landscape’	159
Different, surprising or interesting	‘The land was obviously affected by the fire, but the destruction was less than I imagined.’ ‘Strangely familiar, but in a post-apocalyptic way makes it interesting and different.’ ‘While I knew fire was important to the CA landscape, seeing first hand was nice – boundary between burned and unburned was striking.’	50
Mix of good and bad	‘Nature is always changing sometimes sad. Today I felt hopeful.’ ‘The first phase of growth after fire is pretty; but I miss the trees.’ ‘Fire is neither good nor bad, it simply is. The plants and animals will/have recovered.’	28
Negative effects, sadness and devastation	‘Devastated, I used to love this hike.’ ‘Hellish’ ‘Sad to see the tree skeletons :(’	28