

## Original Research



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# Nature-Based Community Recovery Post-Natural Disaster: Black Summer Bushfires

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## Abstract

**Objective:** Natural disasters can cause widespread death and extensive physical devastation, but also harmfully impact individual and community health following a disaster event. Nature-based recovery approach can positively influence the mental health of people and community's post-natural disasters. In response to the Australian bushfire season of 2019–2020, Zoos Victoria, in partnership with the Arthur Rylah Institute, worked with local communities in East Gippsland to support people's recovery through experiencing, supporting, and witnessing nature's recovery.

**Methods:** This mixed-method study explored how nature improved the recovery of remote and rural communities affected by the Black Summer bushfires in East Gippsland. The research studied the individuals' feelings about being involved in nature-based community events and their lived experiences. Data were collected from June to September 2023 through a nature-based community recovery project survey and community interviews.

**Results:** The findings demonstrated that engagement with natural environments promotes positive psychological, mental, and general well-being of people from bushfire-affected communities. Positive feedback from participants indicated the success of the Nature-Based Community Recovery Project in East Gippsland after the Black Summer bushfire.

**Conclusions:** This research provides insights for future recovery projects and ensures that sustainable nature-based recovery solutions for bushfire-impacted communities can be established.

## Introduction

Wildfires (or bushfires, as they are called in Australia) are one of the most common forms of natural disasters in many regions around the world such as California, British Columbia, Siberia, and Australia.<sup>1</sup> The extreme wildfire events in the last decade have resulted in substantial social, economic, and environmental impacts. In Australia, 3 well-known bushfires (the Ash Wednesday bushfires, Black Saturday bushfires, and Black Summer bushfires) were all caused by high temperatures and dryness.<sup>2</sup> The Australian Black Summer bushfires of 2019/2020 devastated Victoria and New South Wales, burning 35.8 million hectares of land, destroying more than 3000 homes, killing 33 people, and killing or displacing an estimated 3 billion local animals.<sup>3,4</sup>

The bushfires not only have devastating impacts in terms of widespread human, material, or environmental losses, but also result in severe health effects, including new or the deterioration of existing physical and mental health conditions.<sup>2,5</sup> The evidence suggests that bushfire-impacted local communities experienced significant personal trauma, particularly those who were on the front line of disaster management.<sup>2,6</sup> An Australian bushfire analysis<sup>2</sup> by demonstrated that post a bushfire event, psychological distress is prevalent in 14% of the general population, and long-term mental health issues 2–7 years post-bushfire are evident in approximately 28%–47.6% of firefighters. Findings also suggested that the prevalence of mental health concerns correlated with the degree of fire impact, and this impact decreased with time.<sup>2</sup> When exploring the direct impact of the Black Summer bushfires, 66 300 people were directly involved in firefighting, of which 53 200 were local and interstate volunteers.<sup>7</sup> Of these personnel, 31% of volunteers and 25% of employees believed that their life was in danger at some point during their service. A total of 4.6% of volunteers and 5.5% of employees displayed very high psychological distress indicative of serious mental illness, and 4.6% of volunteers and 4.9% of employees demonstrated suicidal ideations post the bushfires.<sup>7</sup>

Recovery is identified as coming to terms with the changes to the environment and a new way of living, whilst being recovered is being able to live a full and enriching life despite the environment looking or functioning differently than it did before.<sup>8</sup> The Australian government committed over 2 billion dollars to support communities most impacted by the Black Summer bushfires, to support their healing and rebuilding post-disaster.<sup>6</sup> The National Bushfire Recovery

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