

# **Collaborative Evaluation & Research Centre**

**Supporting Innovative Research and Evaluation**



## **EVALUATION OF THE NATURE BASED COMMUNITY RECOVERY PROJECT – EXTENDED 2023**

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FEDERATION UNIVERSITY  
COLLABORATIVE EVALUATION &  
RESEARCH CENTRE

SUPPORTING INNOVATIVE RESEARCH AND EVALUATION

EVALUATION OF THE NATURE-BASED  
COMMUNITY RECOVERY PROJECT –  
EXTENDED 2023

MARCH 2024

## ACKNOWLEDGEMENTS

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The Collaborative Evaluation & Research Centre (CERC) Federation University Gippsland, acknowledges Aboriginal and Torres Strait Islander people as the traditional owners and custodians of the land, sea and nations and pays our respect to elders, past, present and emerging. The CERC further acknowledges our commitment to working respectfully to honour their ongoing cultural and spiritual connections to this country.

The CERC would like to acknowledge the Latrobe Health Innovation Zone (LHIZ) for funding the development of the CERC and for its ongoing support.

The CERC also would like to thank Zoos Victoria, the Department of Environment, Land, Water and Planning (DELWP) and their Arthur Rylah Institute (ARI) for Environmental Research, and Bushfire Recovery Victoria (BRV) for their support and contribution to the activity of the evaluation of the Nature-Based Community Recovery Project. The ongoing commitment and support from these organisations for the project ensured a robust evaluation.

## ABOUT THE AUTHOR

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The Collaborative Evaluation & Research Centre (CERC) Federation University Gippsland is an innovative initiative that aims to build evaluation capacity and expertise locally in Gippsland, and nationally and internationally. As a local provider in Gippsland, Victoria, the CERC understands the value of listening to the community and has the ability to deliver timely and sustainable evaluations that are tailored to the needs of a wide variety of organisations.

Professor Joanne Porter is the Director of the CERC. Joanne has led a number of successful research projects and evaluations in conjunction with local industry partners. She has guided the development of the CERC since its formation in 2018.

The CERC team that evaluated the Nature-Based Community Recovery Project Extension 2023 included:

- Professor Joanne Porter
- Megan Simic
- Dr Elizabeth Miller
- Dr Daria Soldatenko
- Luis Antonio T. Hualda



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## 1. EXECUTIVE SUMMARY

### 1.1 INTRODUCTION

The Australian bushfire season of 2019-20 was unprecedented in its intensity with fires burning vast areas across Victoria. The impact on the environment, communities and businesses was devastating. Zoos Victoria, ARI (DELWP) partnered with Bushfire Recovery Victoria (BRV) to work with local communities in east Gippsland to support people's recovery through experiencing, supporting and witnessing nature's recovery. The nature-based community projects were diverse and varied such as community gardens, fencing, planting of native plants and the establishment of a fire-resistant garden to be used for educational purposes. In Phase 1 of this project, evaluation of projects that received grants of up to \$5,000 that were made available to community organisations and social enterprises was undertaken. Evaluated projects were those that would benefit the environment, wildlife and habitats and actively support the recovery of fire-affected communities. Phase 2 of this project aimed to investigate how the broader communities in East Gippsland interacted with nature whilst healing personally and as a community from the Black Summer bushfires. Investigation into how communities in East Gippsland interact with nature could provide insight into future recovery projects and ensure that sustainable nature-based recovery solutions for bushfire-impacted communities could be established.

The Collaborative Evaluation and Research Centre (CERC) were commissioned to explore how nature had improved the recovery of remote and rural communities affected by bushfires. Data were collected from June 2023 - September 2023 through a nature-based community recovery project survey and community interviews.

### 1.2 KEY FINDINGS

A number of key findings were achieved, and subsequent recommendations were developed within the project as a result of multiple avenues of data collection. These key findings and recommendations provide an overview of the significant outcomes that were extracted from the data, with SMART (Specific, Measurable, Achievable, Relevant and Time-bound) recommendations on how to implement data in potential future iterations of the project.

Data from the nature-based community recovery project survey demonstrated that the majority of participants (75.0%) were satisfied with the outcome of nature-based community projects or events that occurred in East Gippsland, and most (78.4%) would recommend them in future. The participants' feedback was very positive about the nature-based community recovery projects or events as they were able *'to enjoy wildlife without disturbing it'*, the projects made them *'feel calm and relaxed'*, *'excited and amazed'* and it took *'their mind off stresses or problems'*. The best part of the projects, for the majority of participants, was *'connecting with people, community and nature'*, *'experiencing and interacting with nature'*, *'gaining new knowledge on appreciating nature'*, *'doing arts and crafts'*, and *'meditation'*. The participants found the nature-based projects or events interesting, informative and well-organised. In addition, according to the participants' comments, it was a good learning and awareness-raising experience at the events. The importance of the nature-based community recovery projects and events was recognised for connecting and educating people and getting them involved in different activities, including nature protection and rehabilitation.

Through the interviews with participants of the provided nature-based events, it was evident that these events helped them to heal from the consequences of the devastating Black Summer bushfires. Being able to share their stories and experiences with people who went through the same natural disaster was beneficial for them. Engaging with nature, meeting new people, and creating arts and crafts provided *“a kind of therapy”*, the impact of which would be felt beyond the single nature-based event.

The *“environmental education and awareness”* focus of the nature-based events was clearly highlighted in interviews as well. Interview participants noticed that they learnt more about building connections with self and surroundings, as well as building empathy towards nature, which is very important.

*“[The events] had an aspect of environmental education and awareness as well. Increasing people’s knowledge and that kind of thing is also one of the aspects of forest therapy or nature therapy is about building connection to the area and nature, which then enhances empathy... People care about things that they understand and empathise for and want to look after them”.*

The importance of nature-based events for building new connections and bringing people together was a keen discussion point. Being in a group of *“like-minded people”* with the same passion for nature was crucial for their wellbeing. Sharing experiences, learning from each other, and engaging in activities together were very beneficial for people and the community as well.

In addition, interview participants expressed their willingness to have more nature-based events in future on a regular basis. They wish to have more activities within the extended time frame. They hoped that the *“process for applying for funding was a bit more straightforward”* and that the planning and coordination of activities could run more efficiently.

*“I just want to see more of this happening and just less extraction of natural resources and just more celebration of the beauty that we have”.*

Moreover, participants recognised the importance of nature-based events for tourism and economic development in the region. Having the local nature-based events open to all meant that some people travelled across the state to attend. This attendance from people outside of East Gippsland was encouraging for participants as the area does *“thrive on tourism”*. They believed it benefitted their local economy and the sharing of local knowledge, *“[tourists] come and spend money, they visit a lot of the local historical places... It’s nice to have the visitors come and visit our little part of the world”*.

In terms of the relationship with nature, both data from the nature-based community recovery project survey and interviews showed that participants enjoyed being in nature for multiple reasons, including *“feeling calm”, “safe”, “peaceful”* and *“hopeful”* and *“having a positive effect of nature on emotions”*. Through the interview discussions, participants described being in nature as *“very consoling”, “therapeutic and relaxing”*. In addition, the majority of participants acknowledged the role of nature in their lives not only because it makes them feel *‘relaxed, calm and comfortable’* but also because it *“connects us with ourselves”, “family”, “people”, “community and nature itself”*.

Quantitative analysis of surveys revealed that in terms of the connection with nature, almost all participants *‘enjoyed spending time in nature’* and *‘liked to get outdoors whenever they get the chance’*. The majority of participants felt *‘a strong emotional connection to nature’* and they felt *‘very concerned about taking care of nature’*. The feeling connected with nature helped them to deal with everyday stress. It was recognised both in survey responses and interviews how important it was to be in harmony with nature and how human wellbeing depends upon living in this harmony.

It was interesting to note that according to the evaluation findings, for almost all survey participants, nature gives hope and is considered a significant source of hope along with the family. During interview discussions, it was highlighted that nature is healing and helping to cope with difficulties. The combination of art activities and being in nature provides a therapeutic and consoling effect.

Overall, this analysis demonstrates strong support for the positive effect of nature-based community recovery projects and events on the recovery of remote and rural communities affected by bushfires. A high level of satisfaction and positive feedback from participants indicate the success of the nature-based events. The demand for nature-based events was sounded and their importance for the community, people and nature was highlighted.

### 1.3 KEY RECOMMENDATIONS

Several recommendations regarding the Nature-Based Community Recovery Project have been identified throughout this evaluation. The following recommendations are based on the findings of this report:

1. Continue to run the various nature-based events in East Gippsland to gain further data on its effectiveness and ability to adapt based on the needs of the community.
  - a. Continuation of projects and/or events will allow people to participate in events, improve their wellbeing and enhance community engagement.
  - b. Continuation of projects and/or events will increase environmental awareness among the population, and participation in different nature protection and rehabilitation activities.
  - c. Additional data may provide further insight into the understanding of the lived experience of people connecting with nature.
  - d. Additional data on nature-based community projects and events can allow for improvement of the events and activities to meet the requirements and needs of the community.
2. Undertake the nature-based community recovery project survey of the community on their preferences and interests in terms of future potential nature-based events/activities.
  - a. Understanding of preferences and interests of target groups will allow to modify and adjust the projects/events/activities to best meet the interests and needs.
  - b. In turn, it will lead to a high level of satisfaction of participants and increase the demand for such events.
3. Expand the types of nature-based events and locations to provide a wide range of possible events/activities and sites.
  - a. Different kinds of nature-based events/activities will meet the requirements and needs of various target groups.
  - b. More locations involved in the program will allow to cover a wider area for facilitating nature-based events, environmental awareness and community engagement.
  - c. Nature-based events with different focuses (e.g. educational, mediation, relaxation, nature protection and rehabilitation) will attract people with different interests and needs.
4. Promote nature-based events more widely and make them open for people from the whole of Australia and international visitors as well.
  - a. Promotion of nature-based events will increase tourist flow to the region.
  - b. In turn, this will boost the economic development of the region.



# Nature-Based Community Recovery Project

June - September 2023



88 participants

Nature-based community recovery project survey

## Projects and events in:



Glenaladale  
Orbost  
Lakes Entrance  
two Landcare groups



9

Community interviews

75%

Satisfied with the outcome of the nature-based community event

78%

Would recommend it in the future

97%

Enjoyed spending time in nature

94%

Felt calm when in nature

85%

Felt a strong emotional connection to nature

## Comments

The best part of the project:

- 'connecting with people, community and nature',
- 'experiencing and interacting with nature',
- 'gaining new knowledge on appreciating nature'
- 'doing arts and crafts', 'meditation'.

"Sharing stories and experiences" was beneficial to participants and "having like-minded people to talk to" provided a safe space for learning and healing.

"Being in nature makes me feel safe. I feel grounded and calm. It makes me think of happy things. It amazes me how complex and simple nature can be."

## Key Recommendations



- Continue to run the various nature-based events in East Gippsland that are place-based and sensitive to community.
- Explore community preferences and interests for future potential events.
- Expand nature-based events in East Gippsland, engaging different populations based on their needs.
- Promote nature-based activities for tourism opportunities in East Gippsland.

## 2. EVALUATION OF THE NATURE-BASED COMMUNITY RECOVERY PROJECT

### 2.1 INTRODUCTION

The Australian bushfire season of 2019-20 was unprecedented in its intensity with fires burning vast areas across Victoria. The impact on the environment, communities and businesses was devastating. According to the Natural Hazard Research Australia report<sup>1</sup>, the 2019-2020 Black Summer bushfires burned a record 19 million hectares, destroyed more than 3,000 homes, displaced tens of thousands of people, and estimated to have killed billions of animals. In response to the devastating effect of fires, numerous initiatives were arranged to explore and address the immediate issues arising from Black Summer. The National Bushfire Recovery Agency (NBRA) was established on 6 January 2020 to lead and coordinate a national response to rebuilding bushfire-affected communities, and to administer the National Bushfire Recovery Fund. A wide range of support measures were developed including infrastructure and economic support, to community health, tourism and small business assistance.<sup>2</sup> In January 2020, the Australian Government established the Threatened Species Bushfire Recovery Expert Panel to provide scientific input and contribute to the assessment of fire impacts on animals, plants, ecological communities and other natural assets, and to identify priority species and recovery actions.<sup>3</sup> The Bushfire Biodiversity Response and Recovery (BBRR) program was established by the Victorian Government to support Victoria's bushfire-impacted wildlife and biodiversity.<sup>4</sup>

This project saw a partnership between Zoos Victoria, ARI (DELWP) along with Bushfire Recovery Victoria (BRV) to work with local communities in East Gippsland to support people's recovery through experiencing, supporting and witnessing nature's recovery. Phase 1 of this project saw grants of up to \$5,000 made available to community organisations and social enterprises for projects that would benefit the environment, wildlife and habitats and actively support the recovery of fire-affected communities. Examples of projects that were supported by these small grants included:

- Regular recovery walks through nature which are accessible to all members of the community, becoming embedded in regular community events; establishing interpretive trails that tell a story of community and forest recovery (Figure 1).
- A community hub/group supporting a project to protect native species or environments: creating artwork to raise awareness or sponsoring a specific activity to reduce threats (nest boxes, fencing, captive release, insurance population, etc).
- A community wanting to create spaces for individual reflection, connection and appreciation of native wildlife or natural environments, and a local group wanting to establish meaningful citizen science to track the recovery of local species and share the results with the wider community.

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<sup>1</sup> Natural Hazard Research Australia. (2023). *Understanding the Black Summer bushfires through research: a summary of key findings from the Bushfire and Natural Hazards CRC*. Accessed 8 January 2024.

[https://www.naturalhazards.com.au/sites/default/files/2023-01/Understanding%20the%20Black%20Summer%20bushfires%20through%20research\\_final\\_web\\_NHRA.pdf](https://www.naturalhazards.com.au/sites/default/files/2023-01/Understanding%20the%20Black%20Summer%20bushfires%20through%20research_final_web_NHRA.pdf)

<sup>2</sup> Australia Public Service Commission. (2023). *Black Summer*. Accessed 23 January 2024. <https://www.apsc.gov.au/state-service/state-service-report-2019-20/chapter-1-commitment-service/black-summer#:~:text=Governments%20were%20coordinating%20the%20logistics,cross%2Dgovernment%20partnerships%20were%20essential.>

<sup>3</sup> Australian National Audit Office. (2023). *Wildlife and Habitat Bushfire Recovery Program*. Accessed 23 January 2024. <https://www.anao.gov.au/work/performance-audit/wildlife-and-habitat-bushfire-recovery-program#:~:text=1.4%20On%2015%20January%202020,priority%20species%20and%20recovery%20actions.>

<sup>4</sup> Energy, Environment and Climate Action. (2023). *Victoria's bushfire emergency: Biodiversity response and recovery*. Accessed 23 January 2024. <https://www.wildlife.vic.gov.au/home/biodiversity-bushfire-response-and-recovery>



Phase 2 of this project aimed to investigate how these communities in East Gippsland interacted with nature whilst healing personally and as a community from the Black Summer bushfires. Investigation into how communities in East Gippsland interact with nature could provide insight into future recovery projects and ensure that sustainable nature-based recovery solutions for bushfire-impacted communities could be established.

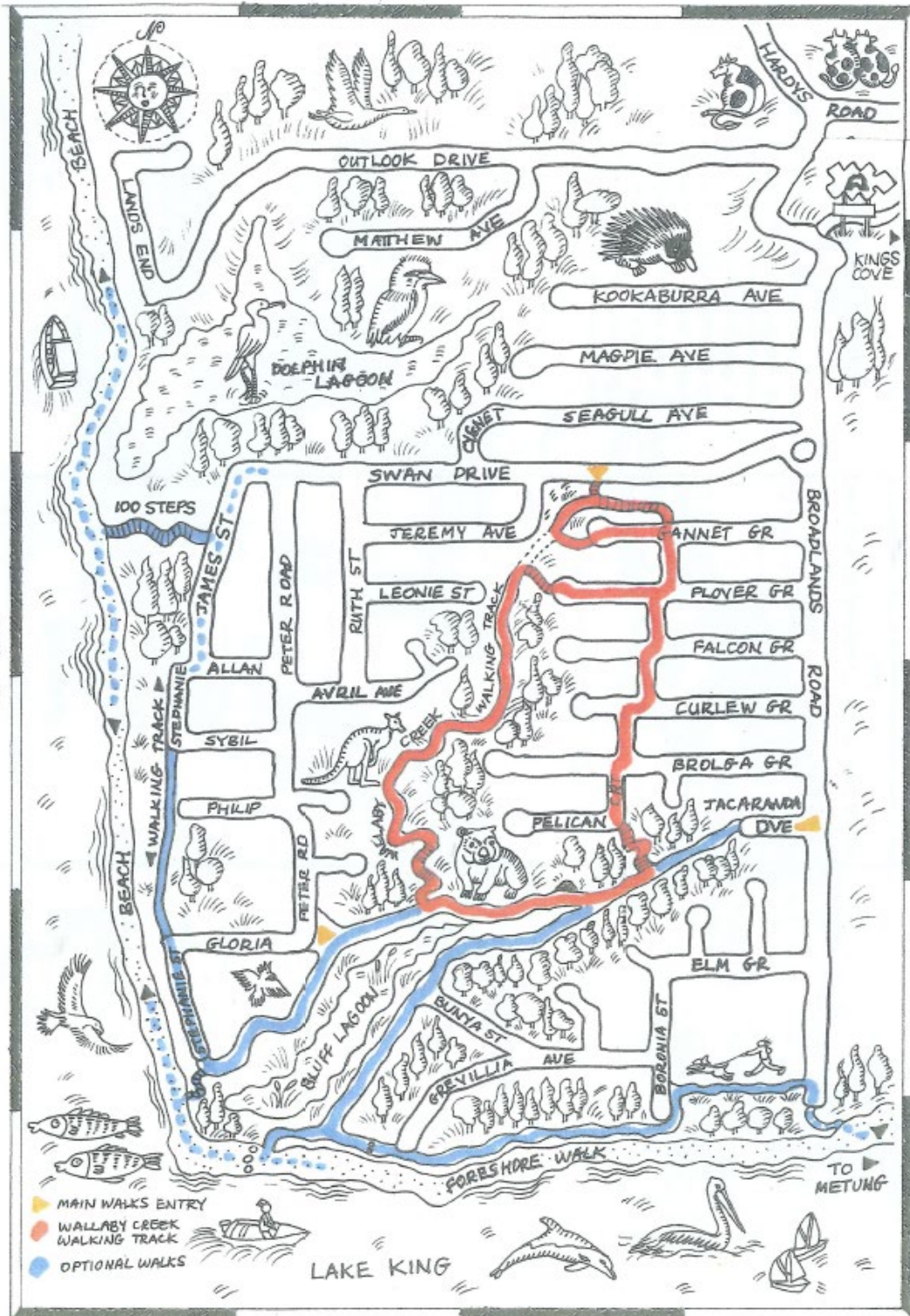


Figure 1. Nature-based activities (walking tracks) in East Gippsland

The role of social support in posttraumatic recovery is crucial. Hobfoll et al<sup>5</sup> work shows that there are five essential elements to the immediate and mid-term social and behavioural recovery after an incident of trauma. These five intervention principles should guide the interventions put in place following trauma in the early to mid-term stages and include the ability to promote a sense of safety, promotion of calm, the promotion of a sense of self and collective efficacy, promotion of connectedness and lastly the promotion of hope.

More recently there has been increasing support for the reconnection of people with nature, and as such the disconnect between people and nature is seen to be a factor contributing to environmental destruction<sup>67</sup>. Schultz<sup>8</sup> suggests that the connection of people with nature is imperative in the commitment to protect and care for the natural environment. Hatty et al<sup>9</sup> further developed a multidimensional connection with nature instrument that is designed to assess this connection between people and the environment. By understanding these connections that people have with nature and the natural environment, we may be better equipped to foster connections with nature and thus increase engagement with its protection and care.

## 2.2 PROJECT DELIVERY / ACTIVITIES

The CERC was commissioned to explore how nature has improved the recovery of remote and rural communities in East Gippsland affected by bushfires. Data were collected from June 2023 - September 2023 through a nature-based community recovery project survey and community interviews.

The CERC team travelled to four local community events held in East Gippsland, inviting people to complete the nature-based community recovery project survey that was previously developed in collaboration with Zoos Victoria. By attending the community events in person and connecting with the community in a place-based manner, it was anticipated that this approach would have minimal impact on the psychological wellbeing of the participants while providing valuable data on how being connected with nature had impacted people's recovery from the bushfires. Using a trauma-informed approach, data were collected in a sensitive and empathic manner.

In conjunction with the distribution of the nature-based recovery survey, community members were then invited to participate in a semi-structured interview to talk about their experiences of connecting with nature. The interview questions focused on how people had connected with nature and how that had impacted their general wellbeing.

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<sup>5</sup>Hobfoll, SE. et al (2007) Five Essential Elements of Immediate and Mid-Term Mass Trauma Intervention: Empirical Evidence, *Psychiatry* 70(4): 283-315. <https://doi.org/10.1521/psyc.2007.70.4.283>

<sup>6</sup> Nisbet, EK. et al (2009) The nature relatedness scale: linking individuals' connection with nature to environmental concern and behaviour, *Environmental Behaviour* 41, 715-740. <https://doi.org/10.1177/0013916508318>

<sup>7</sup> Zylstra, MJ. et al (2014) Connectedness as a core conservation concern: an interdisciplinary review of theory and a call for practice, *Springer Science Review*, 2, 119-143. <https://doi.org/10.1007/s40362-014-0021-3>

<sup>8</sup> Schultz, PW. (2002) "Inclusion with nature: the psychology of human-nature relations" In *Psychology of Sustainable Development*, Eds P. Shmuck and WP. Schultz, Springer Science and Business Media, New York, pp. 61-78. [https://doi.org/10.1007/978-1-4615-0995-0\\_4](https://doi.org/10.1007/978-1-4615-0995-0_4)

<sup>9</sup> Hatty, MA. et al (2020) The CN-12: A Brief, Multidimensional Connection With Nature Instrument, *Frontiers in Psychology* 11, 1566. <https://doi.org/10.3389/fpsyg.2020.01566>

### 3. THE EVALUATION

#### 3.1 AIM OF THE EVALUATION

The aim of Phase 2 of this project was to explore how nature has impacted the recovery of remote and rural communities affected by bushfires in East Gippsland.

#### 3.2 EVALUATION RESEARCH QUESTIONS

1. To develop an understanding of how individuals living in rural and remote communities feel about being involved in nature-based community projects and events.
2. To develop an understanding of the lived experience of individuals in rural and remote communities through nature-based recovery projects.

#### 3.3 DATA COLLECTION / TOOLS USED

A mixed methods approach was used to measure the impact of being connected with nature-based activities for individuals as part of community bushfire recovery. Quantitative and qualitative data were collected via a nature-based community recovery project survey and individual semi-structured community interviews as shown in Figure 2 below.

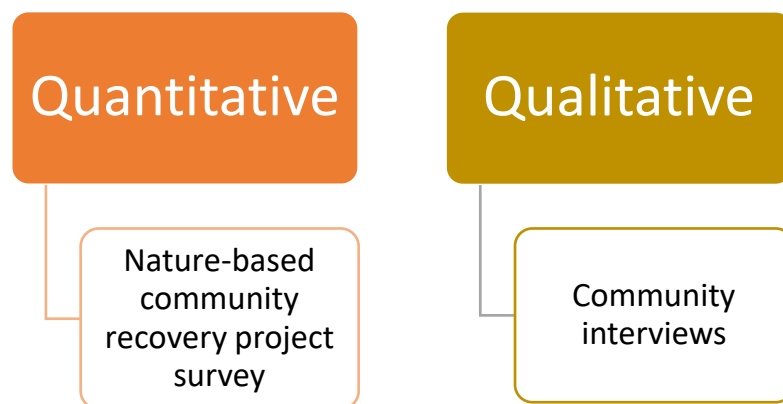


Figure 2. Data collection tools

## 4. EVALUATION FINDINGS

### 4.1 NATURE-BASED COMMUNITY RECOVERY PROJECT SURVEY

#### INTRODUCTION

Presented below are the results of the survey conducted with participants of nature-based community recovery projects or events held at Glenaladale (n=12, 13.6%), Orbost (n=12, 13.6%), Lakes Entrance (n=41, 46.6%), and two Landcare groups (n=23, 26.1%). A paper-based survey was administered during the events and completed forms were collected by the CERC evaluation team, with encoded responses in Qualtrics. A total of 88 completed surveys were included in the analysis.

#### DEMOGRAPHIC INFORMATION

The majority of survey respondents were female (n=57, 64.8%), and 31.8% (n=28) were male (Figure 3). One participant preferred not to state the gender and the other two did not respond to this question.

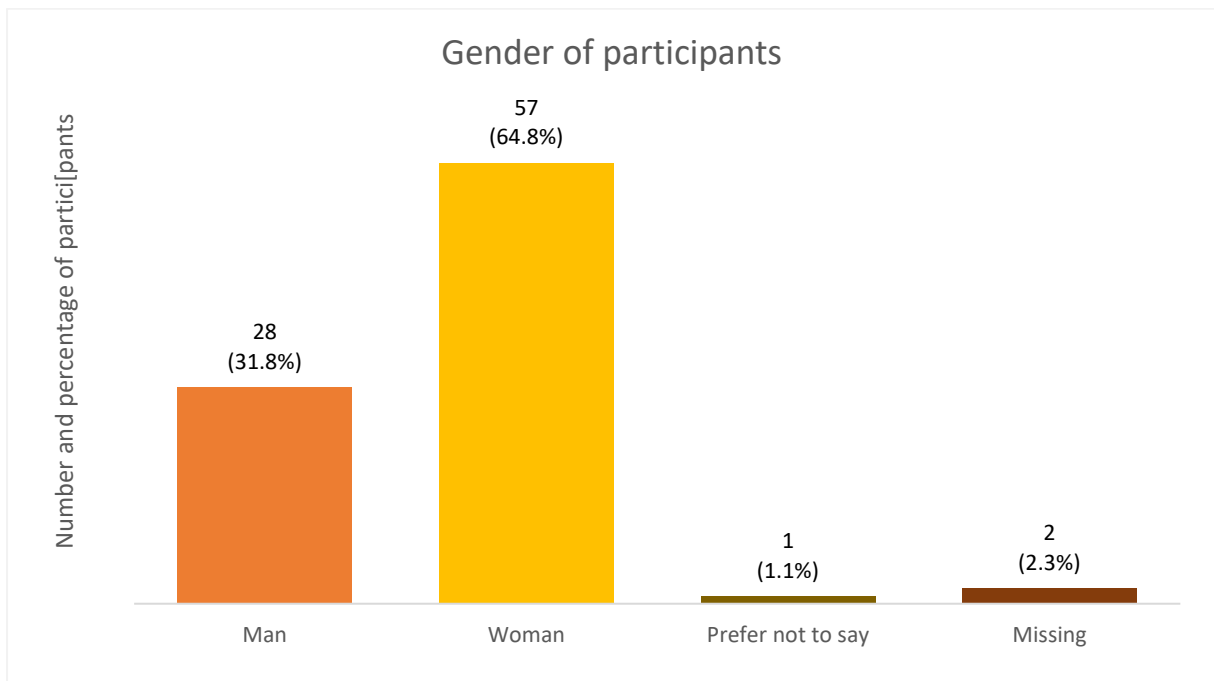


Figure 3. Gender of participants

When understanding the age of respondents, a large proportion belonged to the age group 41-50 years (n=20, 22.7%), followed by people from 71-80 years (n=15, 17%) and 51-60 years (n=15, 17%) and 31-40 years (n=13, 15.7%) (Figure 4). Five respondents did not indicate their ages.

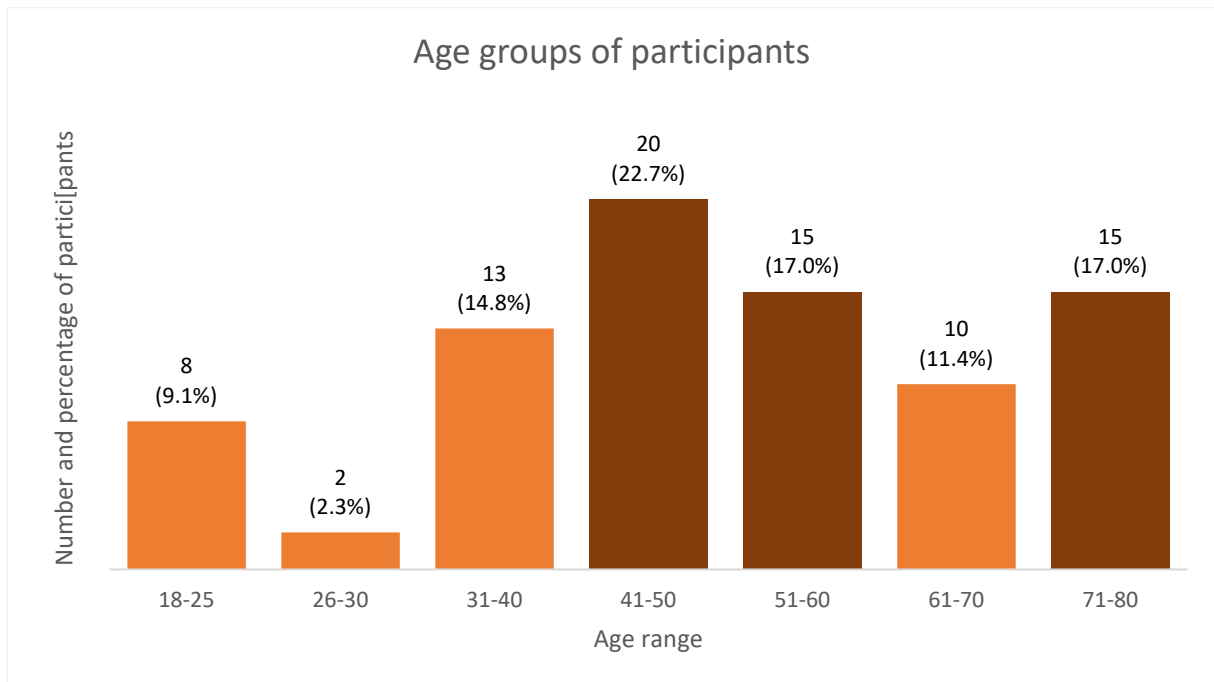


Figure 4. The age range of participants

#### INVOLVEMENT IN THE PROJECT AND FEELINGS AFTER PARTICIPATING IN THE PROJECT

Participants were asked to indicate which statement best represented them to determine their involvement in nature-based activities or events. Multiple statements could be chosen. As shown in Figure 5, the most common responses were *'attending an event'* (n=72, 81.7%), *'community member involved with the nature-based community recovery grant'* (n=7, 8.0%) and *'have engaged with the project when it was implemented'* (n=7, 8.0%). Some participants selected more than one statement that represented them. There were also participants who did not fall under the pre-determined categories of representation and provided their own responses. These included *'Presenter / facilitator of event'* and *'Landcare member'*.

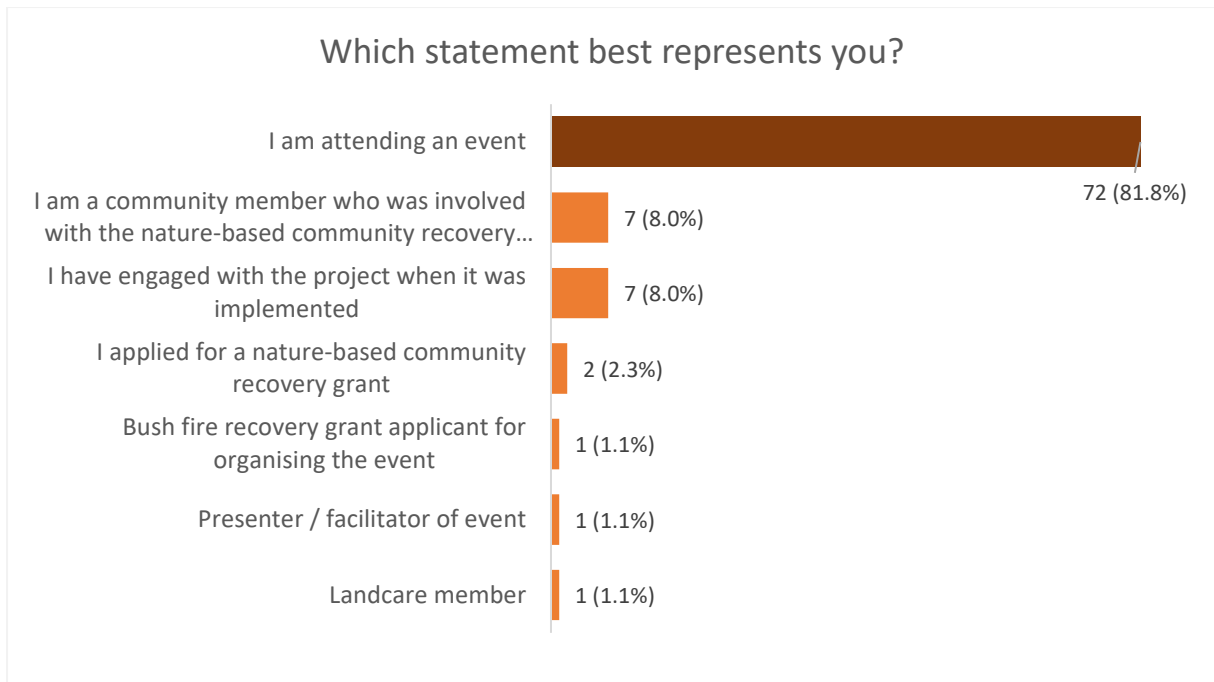
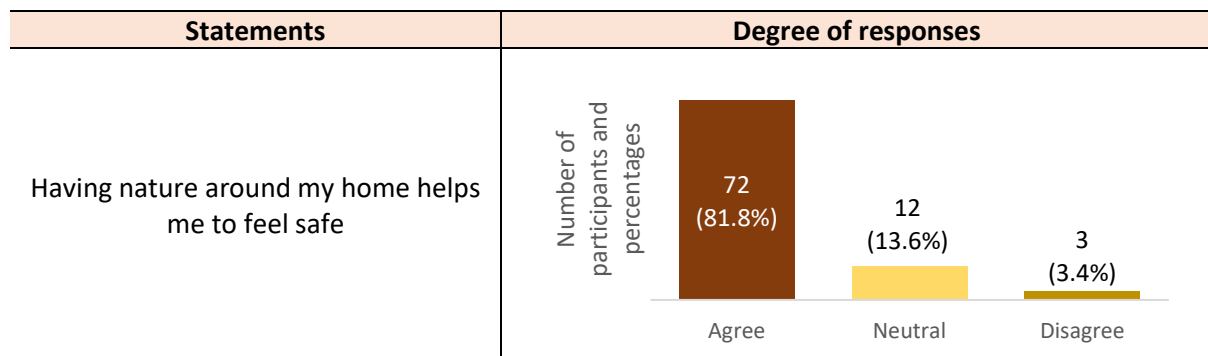


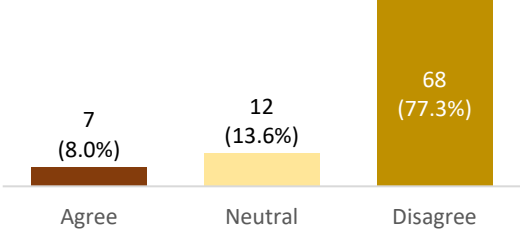
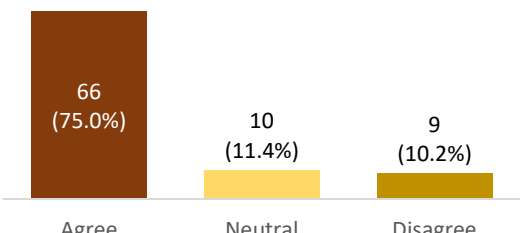
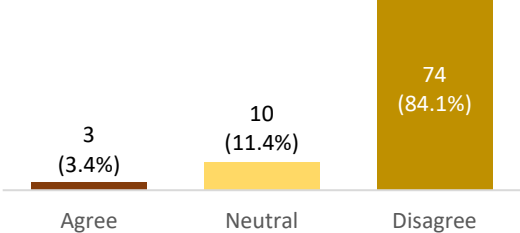
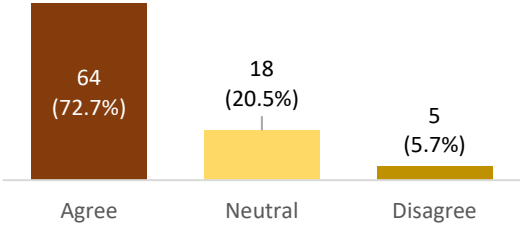
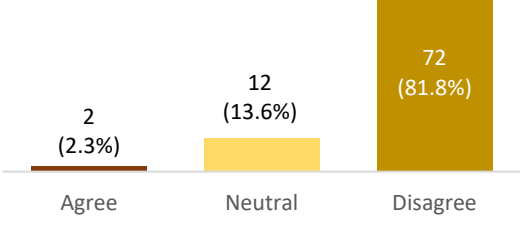
Figure 5. Responses to the question “Which statement best represents you?”

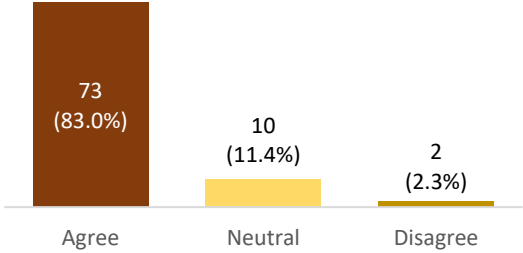
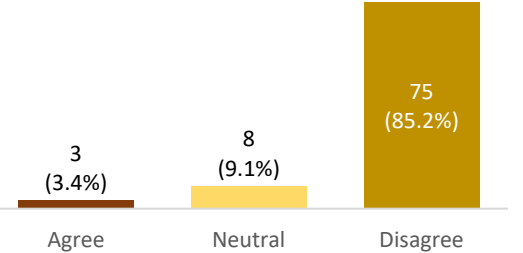
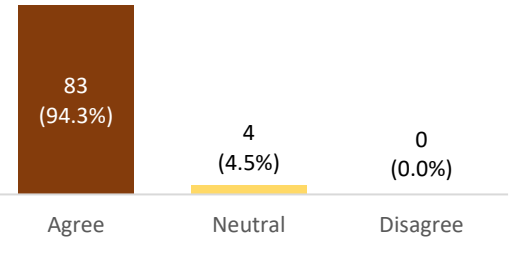
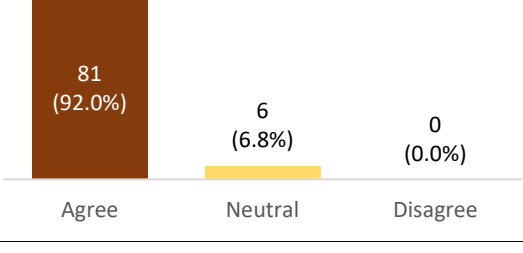
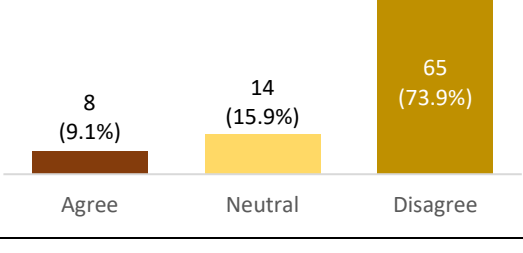
Participants were given a series of statements about their feelings when in nature and asked to rate each one from *Strongly Agree* to *Strongly Disagree*. The original responses were on a five-point Likert scale. For reporting purposes, *Strongly Agree* and *Agree* have been combined in the positive and *Strongly Disagree* and *Disagree* have been combined in the negative throughout this report. The results are presented using a 3-point Likert scale. The results are shown in Figure 6 below.

Some of the statements were expressed in the negative to validate whether participants were responding to statements appropriately. Statements that got the highest number of ‘*Agree*’ were ‘*I feel calm when I spend time in nature*’ (n=83, 94.3%), followed by ‘*Nature has a calming effect on me*’ (n=81, 92.0%) and ‘*Being in nature has a positive effect on my emotions*’ (n=81, 92.0%) (Figure 6). It can be observed that these statements are related to the positive effects of nature on emotions, particularly the feeling of being calm.





Statements	Degree of responses												
Nature has nothing to do with feeling safe (-)	<p data-bbox="724 286 815 456">Number of participants and percentages</p>  <table border="1" data-bbox="820 293 1342 524"> <thead> <tr> <th>Response</th> <th>Number</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Agree</td> <td>7</td> <td>8.0%</td> </tr> <tr> <td>Neutral</td> <td>12</td> <td>13.6%</td> </tr> <tr> <td>Disagree</td> <td>68</td> <td>77.3%</td> </tr> </tbody> </table>	Response	Number	Percentage	Agree	7	8.0%	Neutral	12	13.6%	Disagree	68	77.3%
Response	Number	Percentage											
Agree	7	8.0%											
Neutral	12	13.6%											
Disagree	68	77.3%											
Nature is linked to my feelings of safety	<p data-bbox="724 640 815 810">Number of participants and percentages</p>  <table border="1" data-bbox="820 647 1342 878"> <thead> <tr> <th>Response</th> <th>Number</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Agree</td> <td>66</td> <td>75.0%</td> </tr> <tr> <td>Neutral</td> <td>10</td> <td>11.4%</td> </tr> <tr> <td>Disagree</td> <td>9</td> <td>10.2%</td> </tr> </tbody> </table>	Response	Number	Percentage	Agree	66	75.0%	Neutral	10	11.4%	Disagree	9	10.2%
Response	Number	Percentage											
Agree	66	75.0%											
Neutral	10	11.4%											
Disagree	9	10.2%											
I don't feel safe when I am in nature (-)	<p data-bbox="724 999 815 1169">Number of participants and percentages</p>  <table border="1" data-bbox="820 1005 1342 1236"> <thead> <tr> <th>Response</th> <th>Number</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Agree</td> <td>3</td> <td>3.4%</td> </tr> <tr> <td>Neutral</td> <td>10</td> <td>11.4%</td> </tr> <tr> <td>Disagree</td> <td>74</td> <td>84.1%</td> </tr> </tbody> </table>	Response	Number	Percentage	Agree	3	3.4%	Neutral	10	11.4%	Disagree	74	84.1%
Response	Number	Percentage											
Agree	3	3.4%											
Neutral	10	11.4%											
Disagree	74	84.1%											
Being in nature makes me feel safe	<p data-bbox="724 1357 815 1527">Number of participants and percentages</p>  <table border="1" data-bbox="820 1364 1342 1594"> <thead> <tr> <th>Response</th> <th>Number</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Agree</td> <td>64</td> <td>72.7%</td> </tr> <tr> <td>Neutral</td> <td>18</td> <td>20.5%</td> </tr> <tr> <td>Disagree</td> <td>5</td> <td>5.7%</td> </tr> </tbody> </table>	Response	Number	Percentage	Agree	64	72.7%	Neutral	18	20.5%	Disagree	5	5.7%
Response	Number	Percentage											
Agree	64	72.7%											
Neutral	18	20.5%											
Disagree	5	5.7%											
Being in nature makes me feel anxious (-)	<p data-bbox="724 1715 815 1886">Number of participants and percentages</p>  <table border="1" data-bbox="820 1722 1342 1953"> <thead> <tr> <th>Response</th> <th>Number</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Agree</td> <td>2</td> <td>2.3%</td> </tr> <tr> <td>Neutral</td> <td>12</td> <td>13.6%</td> </tr> <tr> <td>Disagree</td> <td>72</td> <td>81.8%</td> </tr> </tbody> </table>	Response	Number	Percentage	Agree	2	2.3%	Neutral	12	13.6%	Disagree	72	81.8%
Response	Number	Percentage											
Agree	2	2.3%											
Neutral	12	13.6%											
Disagree	72	81.8%											

Statements	Degree of responses												
I feel the calmest when I am in nature	<p data-bbox="738 309 826 461">Number of participants and percentages</p>  <table border="1" data-bbox="834 277 1358 528"> <thead> <tr> <th>Response</th> <th>Number</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Agree</td> <td>73</td> <td>83.0%</td> </tr> <tr> <td>Neutral</td> <td>10</td> <td>11.4%</td> </tr> <tr> <td>Disagree</td> <td>2</td> <td>2.3%</td> </tr> </tbody> </table>	Response	Number	Percentage	Agree	73	83.0%	Neutral	10	11.4%	Disagree	2	2.3%
Response	Number	Percentage											
Agree	73	83.0%											
Neutral	10	11.4%											
Disagree	2	2.3%											
I get worried when I take my family out in nature (-)	<p data-bbox="738 656 826 808">Number of participants and percentages</p>  <table border="1" data-bbox="834 624 1358 875"> <thead> <tr> <th>Response</th> <th>Number</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Agree</td> <td>3</td> <td>3.4%</td> </tr> <tr> <td>Neutral</td> <td>8</td> <td>9.1%</td> </tr> <tr> <td>Disagree</td> <td>75</td> <td>85.2%</td> </tr> </tbody> </table>	Response	Number	Percentage	Agree	3	3.4%	Neutral	8	9.1%	Disagree	75	85.2%
Response	Number	Percentage											
Agree	3	3.4%											
Neutral	8	9.1%											
Disagree	75	85.2%											
I feel calm when I spend time in nature	<p data-bbox="738 1003 826 1155">Number of participants and percentages</p>  <table border="1" data-bbox="834 994 1358 1245"> <thead> <tr> <th>Response</th> <th>Number</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Agree</td> <td>83</td> <td>94.3%</td> </tr> <tr> <td>Neutral</td> <td>4</td> <td>4.5%</td> </tr> <tr> <td>Disagree</td> <td>0</td> <td>0.0%</td> </tr> </tbody> </table>	Response	Number	Percentage	Agree	83	94.3%	Neutral	4	4.5%	Disagree	0	0.0%
Response	Number	Percentage											
Agree	83	94.3%											
Neutral	4	4.5%											
Disagree	0	0.0%											
Nature has a calming effect on me	<p data-bbox="738 1350 826 1503">Number of participants and percentages</p>  <table border="1" data-bbox="834 1364 1358 1615"> <thead> <tr> <th>Response</th> <th>Number</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Agree</td> <td>81</td> <td>92.0%</td> </tr> <tr> <td>Neutral</td> <td>6</td> <td>6.8%</td> </tr> <tr> <td>Disagree</td> <td>0</td> <td>0.0%</td> </tr> </tbody> </table>	Response	Number	Percentage	Agree	81	92.0%	Neutral	6	6.8%	Disagree	0	0.0%
Response	Number	Percentage											
Agree	81	92.0%											
Neutral	6	6.8%											
Disagree	0	0.0%											
I feel less in control when I am in nature (-)	<p data-bbox="738 1675 826 1827">Number of participants and percentages</p>  <table border="1" data-bbox="834 1688 1358 1939"> <thead> <tr> <th>Response</th> <th>Number</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Agree</td> <td>8</td> <td>9.1%</td> </tr> <tr> <td>Neutral</td> <td>14</td> <td>15.9%</td> </tr> <tr> <td>Disagree</td> <td>65</td> <td>73.9%</td> </tr> </tbody> </table>	Response	Number	Percentage	Agree	8	9.1%	Neutral	14	15.9%	Disagree	65	73.9%
Response	Number	Percentage											
Agree	8	9.1%											
Neutral	14	15.9%											
Disagree	65	73.9%											

Statements	Degree of responses												
I have a greater sense of self when I am in nature	<p>Number of participants and percentages</p> <table border="1"> <thead> <tr> <th>Response</th> <th>Number</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Agree</td> <td>71</td> <td>80.7%</td> </tr> <tr> <td>Neutral</td> <td>11</td> <td>12.5%</td> </tr> <tr> <td>Disagree</td> <td>5</td> <td>5.7%</td> </tr> </tbody> </table>	Response	Number	Percentage	Agree	71	80.7%	Neutral	11	12.5%	Disagree	5	5.7%
Response	Number	Percentage											
Agree	71	80.7%											
Neutral	11	12.5%											
Disagree	5	5.7%											
Being in nature has a positive effect on my emotions	<p>Number of participants and percentages</p> <table border="1"> <thead> <tr> <th>Response</th> <th>Number</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Agree</td> <td>81</td> <td>92.0%</td> </tr> <tr> <td>Neutral</td> <td>4</td> <td>4.5%</td> </tr> <tr> <td>Disagree</td> <td>2</td> <td>2.3%</td> </tr> </tbody> </table>	Response	Number	Percentage	Agree	81	92.0%	Neutral	4	4.5%	Disagree	2	2.3%
Response	Number	Percentage											
Agree	81	92.0%											
Neutral	4	4.5%											
Disagree	2	2.3%											
I feel negative emotions when I am in nature (-)	<p>Number of participants and percentages</p> <table border="1"> <thead> <tr> <th>Response</th> <th>Number</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Agree</td> <td>3</td> <td>3.4%</td> </tr> <tr> <td>Neutral</td> <td>4</td> <td>4.5%</td> </tr> <tr> <td>Disagree</td> <td>80</td> <td>90.9%</td> </tr> </tbody> </table>	Response	Number	Percentage	Agree	3	3.4%	Neutral	4	4.5%	Disagree	80	90.9%
Response	Number	Percentage											
Agree	3	3.4%											
Neutral	4	4.5%											
Disagree	80	90.9%											
I feel a sense of belonging when I am in nature	<p>Number of participants and percentages</p> <table border="1"> <thead> <tr> <th>Response</th> <th>Number</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Agree</td> <td>70</td> <td>79.5%</td> </tr> <tr> <td>Neutral</td> <td>11</td> <td>12.5%</td> </tr> <tr> <td>Disagree</td> <td>4</td> <td>4.5%</td> </tr> </tbody> </table>	Response	Number	Percentage	Agree	70	79.5%	Neutral	11	12.5%	Disagree	4	4.5%
Response	Number	Percentage											
Agree	70	79.5%											
Neutral	11	12.5%											
Disagree	4	4.5%											
Nature connects me to the world	<p>Number of participants and percentages</p> <table border="1"> <thead> <tr> <th>Response</th> <th>Number</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Agree</td> <td>71</td> <td>80.7%</td> </tr> <tr> <td>Neutral</td> <td>12</td> <td>13.6%</td> </tr> <tr> <td>Disagree</td> <td>2</td> <td>2.3%</td> </tr> </tbody> </table>	Response	Number	Percentage	Agree	71	80.7%	Neutral	12	13.6%	Disagree	2	2.3%
Response	Number	Percentage											
Agree	71	80.7%											
Neutral	12	13.6%											
Disagree	2	2.3%											
I feel connected to my community when I am in nature	<p>Number of participants and percentages</p> <table border="1"> <thead> <tr> <th>Response</th> <th>Number</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Agree</td> <td>47</td> <td>53.4%</td> </tr> <tr> <td>Neutral</td> <td>28</td> <td>31.8%</td> </tr> <tr> <td>Disagree</td> <td>11</td> <td>12.5%</td> </tr> </tbody> </table>	Response	Number	Percentage	Agree	47	53.4%	Neutral	28	31.8%	Disagree	11	12.5%
Response	Number	Percentage											
Agree	47	53.4%											
Neutral	28	31.8%											
Disagree	11	12.5%											

Statements	Degree of responses												
I do not like to see other people when I am out in nature	<p>Number of participants and percentages</p> <table border="1"> <thead> <tr> <th>Degree</th> <th>Number</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Agree</td> <td>20</td> <td>22.7%</td> </tr> <tr> <td>Neutral</td> <td>33</td> <td>37.5%</td> </tr> <tr> <td>Disagree</td> <td>32</td> <td>36.4%</td> </tr> </tbody> </table>	Degree	Number	Percentage	Agree	20	22.7%	Neutral	33	37.5%	Disagree	32	36.4%
Degree	Number	Percentage											
Agree	20	22.7%											
Neutral	33	37.5%											
Disagree	32	36.4%											
Connecting with nature makes me feel connected to my community	<p>Number of participants and percentages</p> <table border="1"> <thead> <tr> <th>Degree</th> <th>Number</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Agree</td> <td>41</td> <td>46.6%</td> </tr> <tr> <td>Neutral</td> <td>32</td> <td>36.4%</td> </tr> <tr> <td>Disagree</td> <td>13</td> <td>14.8%</td> </tr> </tbody> </table>	Degree	Number	Percentage	Agree	41	46.6%	Neutral	32	36.4%	Disagree	13	14.8%
Degree	Number	Percentage											
Agree	41	46.6%											
Neutral	32	36.4%											
Disagree	13	14.8%											
I enjoy nature better when I am with my family	<p>Number of participants and percentages</p> <table border="1"> <thead> <tr> <th>Degree</th> <th>Number</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Agree</td> <td>48</td> <td>54.5%</td> </tr> <tr> <td>Neutral</td> <td>33</td> <td>37.5%</td> </tr> <tr> <td>Disagree</td> <td>6</td> <td>6.8%</td> </tr> </tbody> </table>	Degree	Number	Percentage	Agree	48	54.5%	Neutral	33	37.5%	Disagree	6	6.8%
Degree	Number	Percentage											
Agree	48	54.5%											
Neutral	33	37.5%											
Disagree	6	6.8%											
Watching nature grow gives me hope	<p>Number of participants and percentages</p> <table border="1"> <thead> <tr> <th>Degree</th> <th>Number</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Agree</td> <td>77</td> <td>87.5%</td> </tr> <tr> <td>Neutral</td> <td>8</td> <td>9.1%</td> </tr> <tr> <td>Disagree</td> <td>1</td> <td>1.1%</td> </tr> </tbody> </table>	Degree	Number	Percentage	Agree	77	87.5%	Neutral	8	9.1%	Disagree	1	1.1%
Degree	Number	Percentage											
Agree	77	87.5%											
Neutral	8	9.1%											
Disagree	1	1.1%											
I feel hopeful for the future when I see nature grow	<p>Number of participants and percentages</p> <table border="1"> <thead> <tr> <th>Degree</th> <th>Number</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Agree</td> <td>80</td> <td>90.9%</td> </tr> <tr> <td>Neutral</td> <td>5</td> <td>5.7%</td> </tr> <tr> <td>Disagree</td> <td>1</td> <td>1.1%</td> </tr> </tbody> </table>	Degree	Number	Percentage	Agree	80	90.9%	Neutral	5	5.7%	Disagree	1	1.1%
Degree	Number	Percentage											
Agree	80	90.9%											
Neutral	5	5.7%											
Disagree	1	1.1%											
Hope is not present in nature (-)	<p>Number of participants and percentages</p> <table border="1"> <thead> <tr> <th>Degree</th> <th>Number</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Agree</td> <td>6</td> <td>6.8%</td> </tr> <tr> <td>Neutral</td> <td>10</td> <td>11.4%</td> </tr> <tr> <td>Disagree</td> <td>70</td> <td>79.5%</td> </tr> </tbody> </table>	Degree	Number	Percentage	Agree	6	6.8%	Neutral	10	11.4%	Disagree	70	79.5%
Degree	Number	Percentage											
Agree	6	6.8%											
Neutral	10	11.4%											
Disagree	70	79.5%											

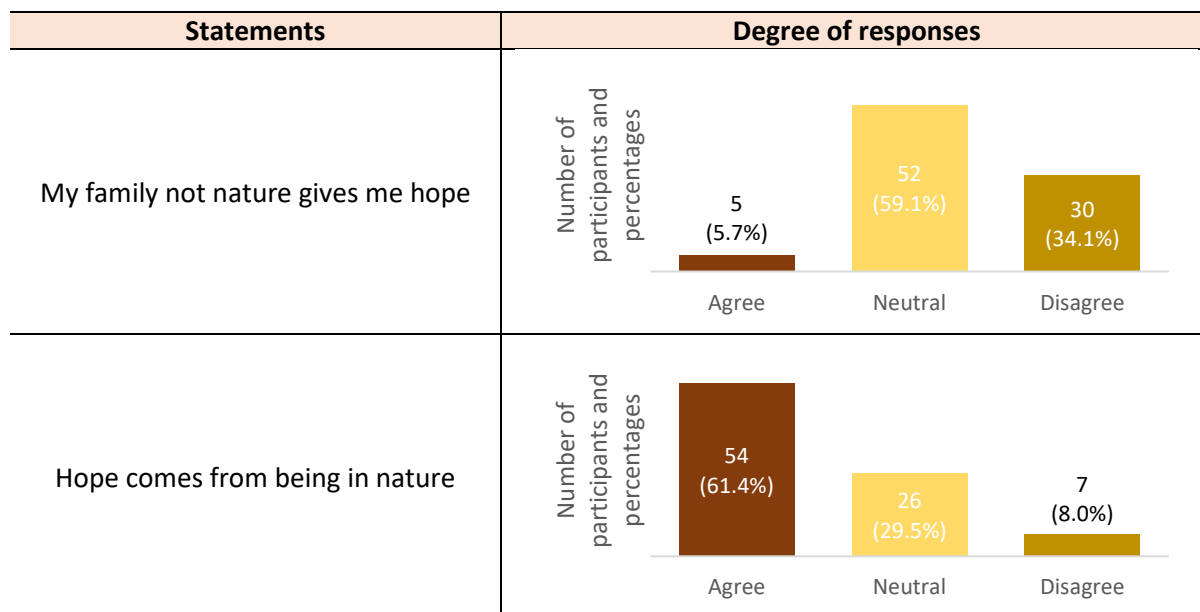


Figure 6. The participants' feelings when they are in nature (after participating in a nature-based community project)

There was a mixed opinion on statements *'I do not like to see other people when I am out in nature'* and *'My family not nature gives me hope'*. For the former question, 33 participants (37.5%) were *'Neutral'* while 32 participants (36.4%) disagreed. This question reflects how participants would like to experience nature, whether they would like to experience it by themselves (those who responded with *'Agree'*) or share it with other people in the community (those who responded with *'Disagree'*). While a third of participants were neutral, a third would like to share the experience of being out in nature with other people.

For the statement *'My family not nature gives me hope'*, the majority chose *'Neutral'* (n=52, 59.1%) and 30 participants (34.1%) - *'Disagree'*. Results may indicate that nature is important in giving people hope aside from their families.

Participants were asked *'What was the best part of the nature-based community project/event?'*. This was an open-ended question and responses were coded into similar concepts or themes. Responses can belong to more than one code of concept or theme. Sixty-six participants (75%) responded to this question. A large proportion of responses were coded to *'Connecting with people, community and nature'* (n=34, 38.6%) followed by *'Experiencing and interacting with nature'* (n=22, 25.0%) (Figure 7).

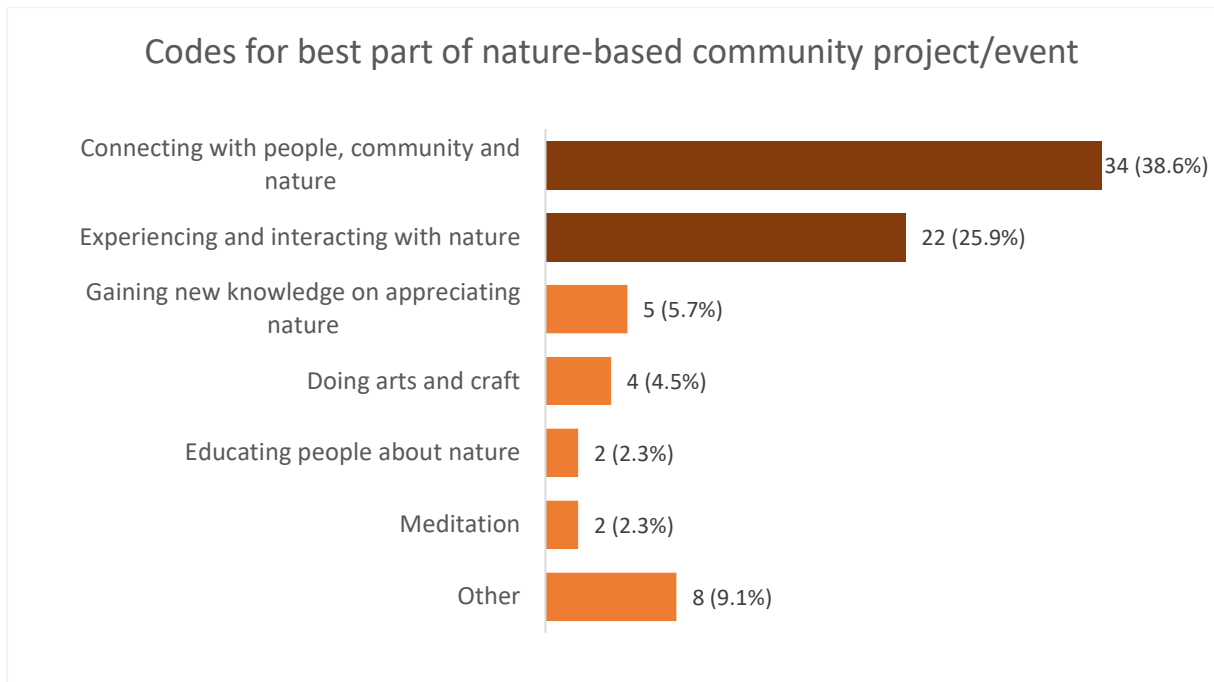


Figure 7. Codes for the best part of nature-based community project/event

Examples of quotes for ‘*Connecting with people, community and nature*’ were:

*“Connecting with old and new friends and allowing my sense to connect me to nature”.* (Participant, Glenaladale)

*“Bring people back to a natural state of being and being part of what we all are”.* (Participant, Orbost)

An example of a quote for ‘*Experiencing and interacting with nature*’ was:

*“Seeing and walking through the gorge, experiencing the flora and fauna.”* (Participant, Glenaladale)

Selected “*Other*” responses were related to ‘*educating people about nature*’ (n=2, 2.3%) and ‘*meditation*’ (n=2, 2.3%) (Figure 7).

The word cloud below (Figure 8) was generated from the participants’ responses to the question about the best part of the nature-based community project/event.



Figure 8. Responses about the best part of nature-based community project/event

#### RELATIONSHIP WITH NATURE

Participants were asked to complete the statement *'Nature is important to me because ...'*. Seventy-five participants responded to the question. Responses were coded according to themes and a response can belong to more than one code. Many responses were related to *'it helps me feel relaxed, calm and comfortable'* (n=19, 21.6%) and this was followed by *'it supports our lives'* (n=18, 20.5%) and *'it connects us with ourselves'* (n=12, 13.66%) (Figure 9).

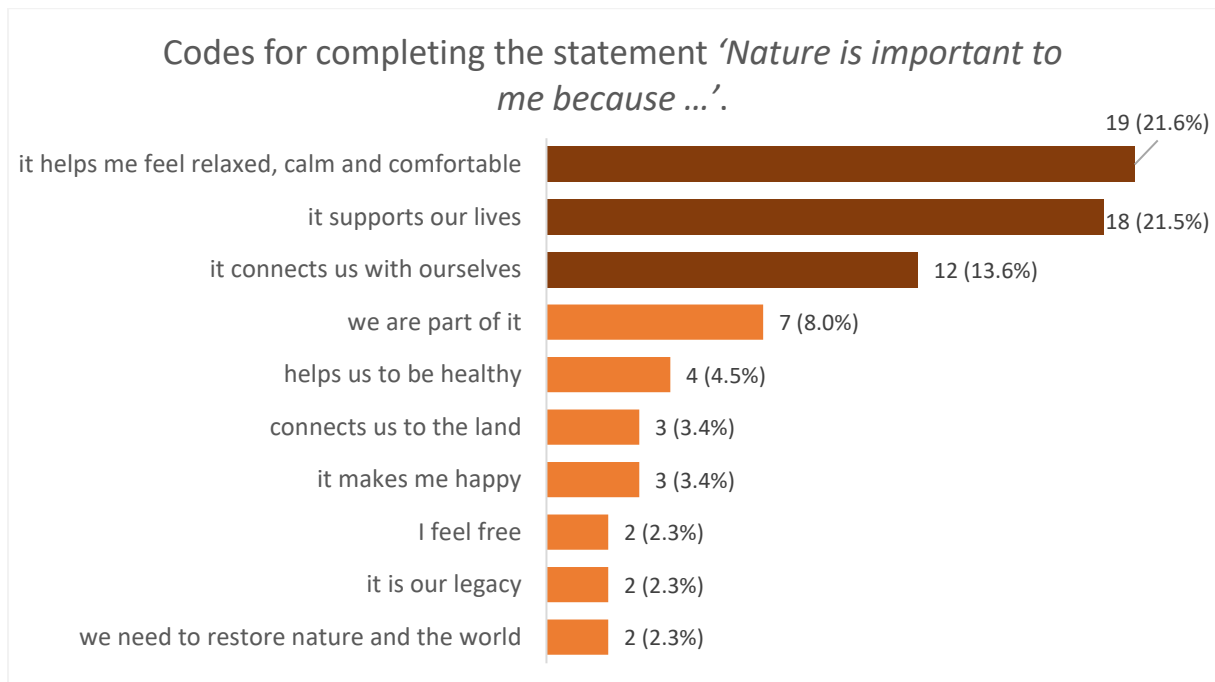


Figure 9. Codes for the question about the importance of nature

Example of quotes under the *'helps me feel relaxed, calm and comfortable'* code:

*"... it helps me relax and allows me to focus and appreciate and develop gratitude."*  
(Participant, Lakes Entrance)

*"... it makes me feel safe. I feel grounded and calm. It makes me think of happy things. It amazes me how complex and simple nature can be."* (Participant, Landcare group)

Example of a quote under the *'it supports our lives'* code:

*"... it is our life support system and my connection to the divine and sacred."* (Participant, Lakes Entrance)

Example of a quote under the *'connects us with ourselves'* code:

*"... it connects us with ourselves, provides emotional, mental and spiritual peace and healing."*  
(Participant, Lakes Entrance).

Figure 10 shows the word cloud generated from participants' responses to the question that requested completing the statement *"nature is important to me because..."*. The majority of participants' responses were about how nature makes them feel and how it helps them.

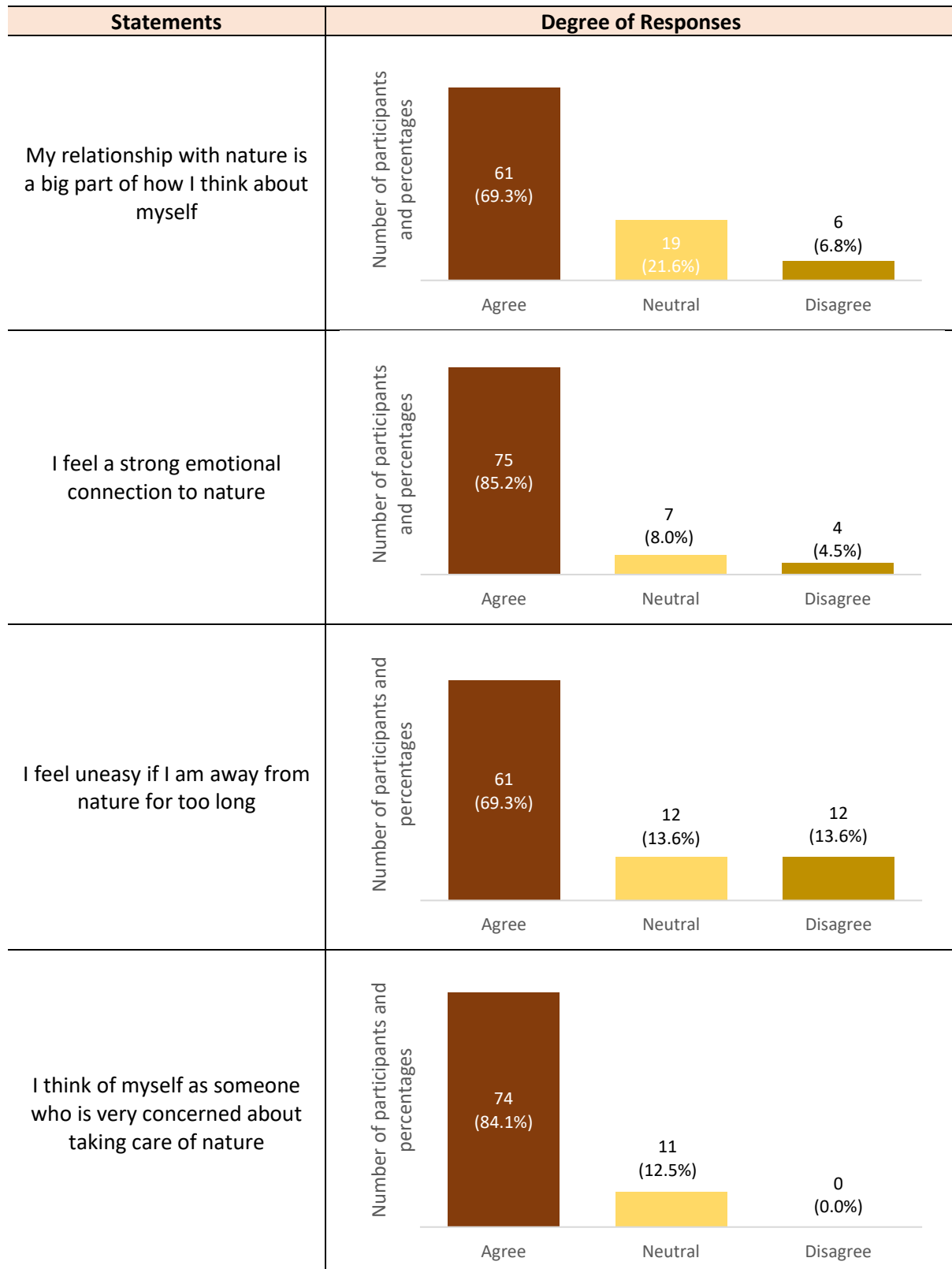


Figure 10. Responses to the question about why nature is important

Participants were given a series of statements related to their connections with nature and asked to rate each one. The original responses were on a five-point Likert scale that ranged from *'Strongly disagree'* (1) to *'Strongly Agree'* (5). The *'Strongly agree'* and *'Agree'* responses were combined to *'Agree'* for simplification in the presentation of results. The same was applied to *'Strongly disagree'* and *'Disagree'* responses.



Most respondents agreed with the statement 'I enjoy spending time in nature' (n=85, 96.6%), followed by 'I like to get outdoors whenever I get the chance' (n=82, 93.2%) and 'Everything in nature is connected' (n=82, 93.2%) (Figure 11).



Statements	Degree of Responses												
I enjoy spending time in nature	<p>Number of participants and percentages</p> <table border="1"> <thead> <tr> <th>Degree of Response</th> <th>Number of Participants</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Agree</td> <td>85</td> <td>96.6%</td> </tr> <tr> <td>Neutral</td> <td>1</td> <td>1.1%</td> </tr> <tr> <td>Disagree</td> <td>0</td> <td>0.0%</td> </tr> </tbody> </table>	Degree of Response	Number of Participants	Percentage	Agree	85	96.6%	Neutral	1	1.1%	Disagree	0	0.0%
Degree of Response	Number of Participants	Percentage											
Agree	85	96.6%											
Neutral	1	1.1%											
Disagree	0	0.0%											
I like to get outdoors whenever I get the chance	<p>Number of participants and percentages</p> <table border="1"> <thead> <tr> <th>Degree of Response</th> <th>Number of Participants</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Agree</td> <td>82</td> <td>93.2%</td> </tr> <tr> <td>Neutral</td> <td>4</td> <td>4.5%</td> </tr> <tr> <td>Disagree</td> <td>0</td> <td>0.0%</td> </tr> </tbody> </table>	Degree of Response	Number of Participants	Percentage	Agree	82	93.2%	Neutral	4	4.5%	Disagree	0	0.0%
Degree of Response	Number of Participants	Percentage											
Agree	82	93.2%											
Neutral	4	4.5%											
Disagree	0	0.0%											
Feeling connected to nature helps me deal with everyday stress	<p>Number of participants and percentages</p> <table border="1"> <thead> <tr> <th>Degree of Response</th> <th>Number of Participants</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Agree</td> <td>74</td> <td>84.1%</td> </tr> <tr> <td>Neutral</td> <td>10</td> <td>11.4%</td> </tr> <tr> <td>Disagree</td> <td>2</td> <td>2.3%</td> </tr> </tbody> </table>	Degree of Response	Number of Participants	Percentage	Agree	74	84.1%	Neutral	10	11.4%	Disagree	2	2.3%
Degree of Response	Number of Participants	Percentage											
Agree	74	84.1%											
Neutral	10	11.4%											
Disagree	2	2.3%											
Everything in nature is connected (e.g. animals, plants, humans, water, air, land, fire, etc.)	<p>Number of participants and percentages</p> <table border="1"> <thead> <tr> <th>Degree of Response</th> <th>Number of Participants</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Agree</td> <td>82</td> <td>93.2%</td> </tr> <tr> <td>Neutral</td> <td>4</td> <td>4.5%</td> </tr> <tr> <td>Disagree</td> <td>0</td> <td>0.0%</td> </tr> </tbody> </table>	Degree of Response	Number of Participants	Percentage	Agree	82	93.2%	Neutral	4	4.5%	Disagree	0	0.0%
Degree of Response	Number of Participants	Percentage											
Agree	82	93.2%											
Neutral	4	4.5%											
Disagree	0	0.0%											

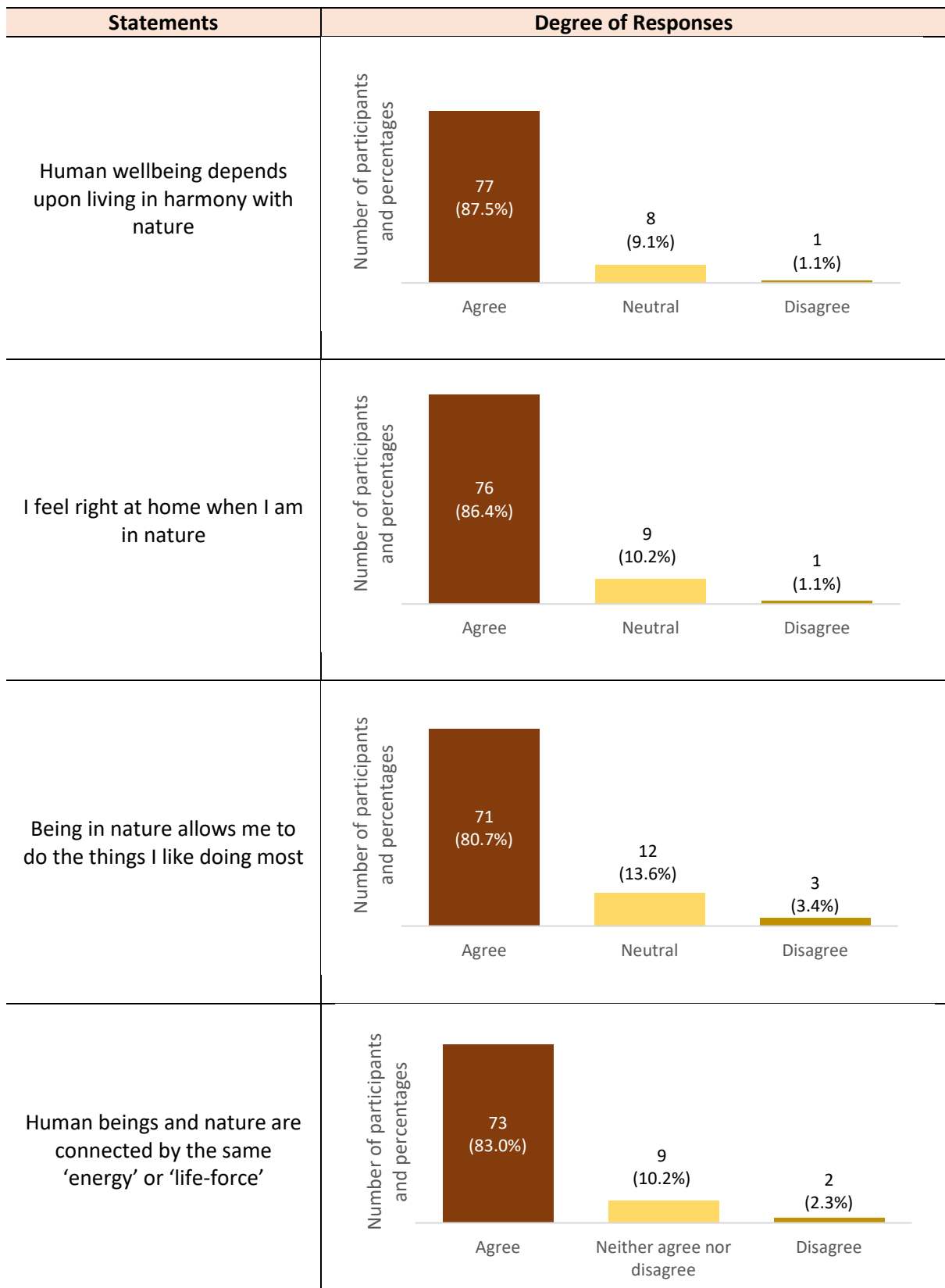
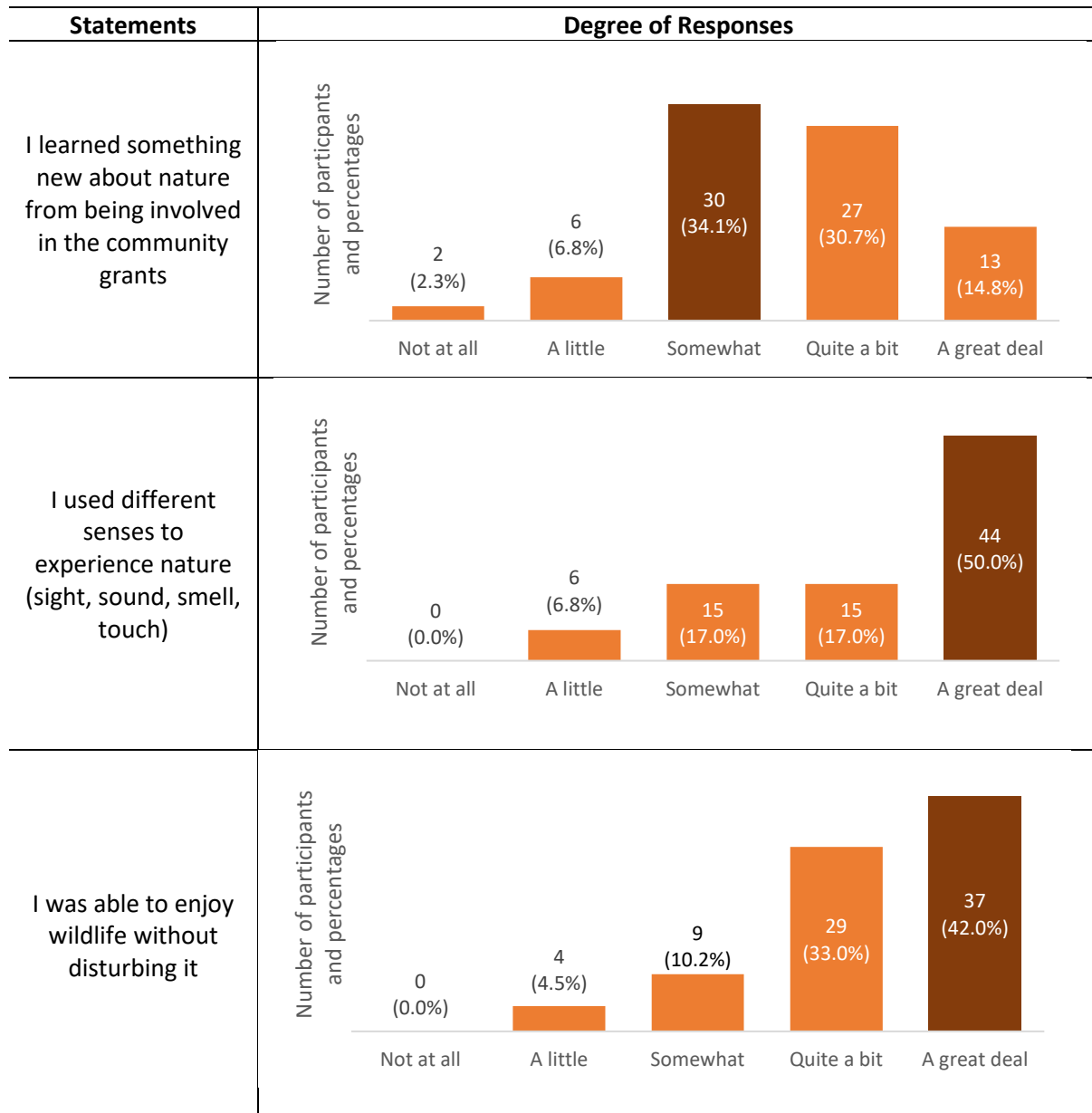


Figure 11. Participants' connections with nature

## FEELINGS ABOUT BEING INVOLVED IN THE NATURE-BASED COMMUNITY RECOVERY PROJECT

Participants were asked to express how they felt about their involvement in the nature-based community recovery projects or events by selecting a response from ‘Not at all’ (1) to ‘A great deal’ (5). For around half of the participants, it was “A great deal” to ‘use different senses to experience nature’, ‘to be able to experience nature without disturbing’ and they felt that ‘the nature-based project made them feel calm and relaxed’ (Figure 12). These responses indicate that it is possible for people to feel calm and relaxed by experiencing nature without disturbing it.



Statements	Degree of Responses																		
<p>The nature-based project made me feel calm and relaxed</p>	<table border="1"> <thead> <tr> <th>Degree of Response</th> <th>Number of Participants</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Not at all</td> <td>0</td> <td>0.0%</td> </tr> <tr> <td>A little</td> <td>3</td> <td>3.4%</td> </tr> <tr> <td>Somewhat</td> <td>18</td> <td>20.5%</td> </tr> <tr> <td>Quite a bit</td> <td>19</td> <td>21.6%</td> </tr> <tr> <td>A great deal</td> <td>37</td> <td>42.0%</td> </tr> </tbody> </table>	Degree of Response	Number of Participants	Percentage	Not at all	0	0.0%	A little	3	3.4%	Somewhat	18	20.5%	Quite a bit	19	21.6%	A great deal	37	42.0%
Degree of Response	Number of Participants	Percentage																	
Not at all	0	0.0%																	
A little	3	3.4%																	
Somewhat	18	20.5%																	
Quite a bit	19	21.6%																	
A great deal	37	42.0%																	
<p>The nature-based project made me feel excited and amazed</p>	<table border="1"> <thead> <tr> <th>Degree of Response</th> <th>Number of Participants</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Not at all</td> <td>2</td> <td>2.3%</td> </tr> <tr> <td>A little</td> <td>6</td> <td>6.8%</td> </tr> <tr> <td>Somewhat</td> <td>16</td> <td>18.2%</td> </tr> <tr> <td>Quite a bit</td> <td>27</td> <td>30.7%</td> </tr> <tr> <td>A great deal</td> <td>26</td> <td>29.5%</td> </tr> </tbody> </table>	Degree of Response	Number of Participants	Percentage	Not at all	2	2.3%	A little	6	6.8%	Somewhat	16	18.2%	Quite a bit	27	30.7%	A great deal	26	29.5%
Degree of Response	Number of Participants	Percentage																	
Not at all	2	2.3%																	
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Quite a bit	27	30.7%																	
A great deal	26	29.5%																	
<p>The nature-based project made me more concerned about the problems facing nature</p>	<table border="1"> <thead> <tr> <th>Degree of Response</th> <th>Number of Participants</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Not at all</td> <td>5</td> <td>5.7%</td> </tr> <tr> <td>A little</td> <td>3</td> <td>3.4%</td> </tr> <tr> <td>Somewhat</td> <td>23</td> <td>26.1%</td> </tr> <tr> <td>Quite a bit</td> <td>22</td> <td>25.0%</td> </tr> <tr> <td>A great deal</td> <td>24</td> <td>27.3%</td> </tr> </tbody> </table>	Degree of Response	Number of Participants	Percentage	Not at all	5	5.7%	A little	3	3.4%	Somewhat	23	26.1%	Quite a bit	22	25.0%	A great deal	24	27.3%
Degree of Response	Number of Participants	Percentage																	
Not at all	5	5.7%																	
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<p>The nature-based project took my mind off stresses or problems</p>	<table border="1"> <thead> <tr> <th>Degree of Response</th> <th>Number of Participants</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Not at all</td> <td>3</td> <td>3.4%</td> </tr> <tr> <td>A little</td> <td>5</td> <td>5.7%</td> </tr> <tr> <td>Somewhat</td> <td>14</td> <td>15.9%</td> </tr> <tr> <td>Quite a bit</td> <td>32</td> <td>36.4%</td> </tr> <tr> <td>A great deal</td> <td>23</td> <td>26.1%</td> </tr> </tbody> </table>	Degree of Response	Number of Participants	Percentage	Not at all	3	3.4%	A little	5	5.7%	Somewhat	14	15.9%	Quite a bit	32	36.4%	A great deal	23	26.1%
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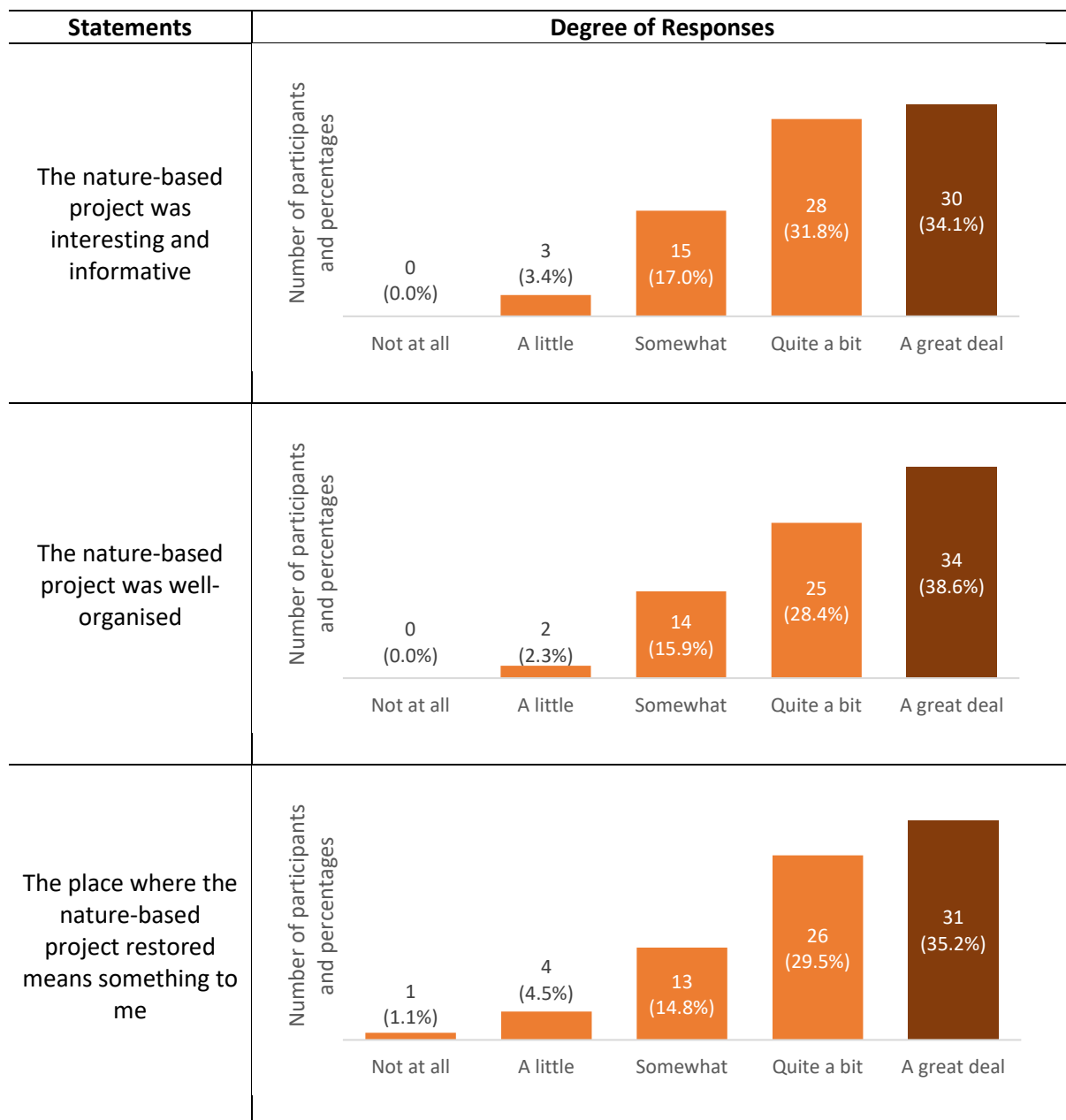


Figure 12. Participants’ feelings about being involved in the nature-based community recovery project

When asked who would benefit from being involved with nature-based community projects, 67 participants answered. Responses were given through an open-ended question and were grouped according to common categories. The most common category of responses was “Everyone/Whole Community” (n=43, 48.9%). This was followed by “Children/Young people” (n=7, 8.0%) (Figure 13). Responses that were included in the “Other” category were “Aboriginal and First Nations People”, “Family”, “People living in cities”, and “Bushfire victims” with one response for each.

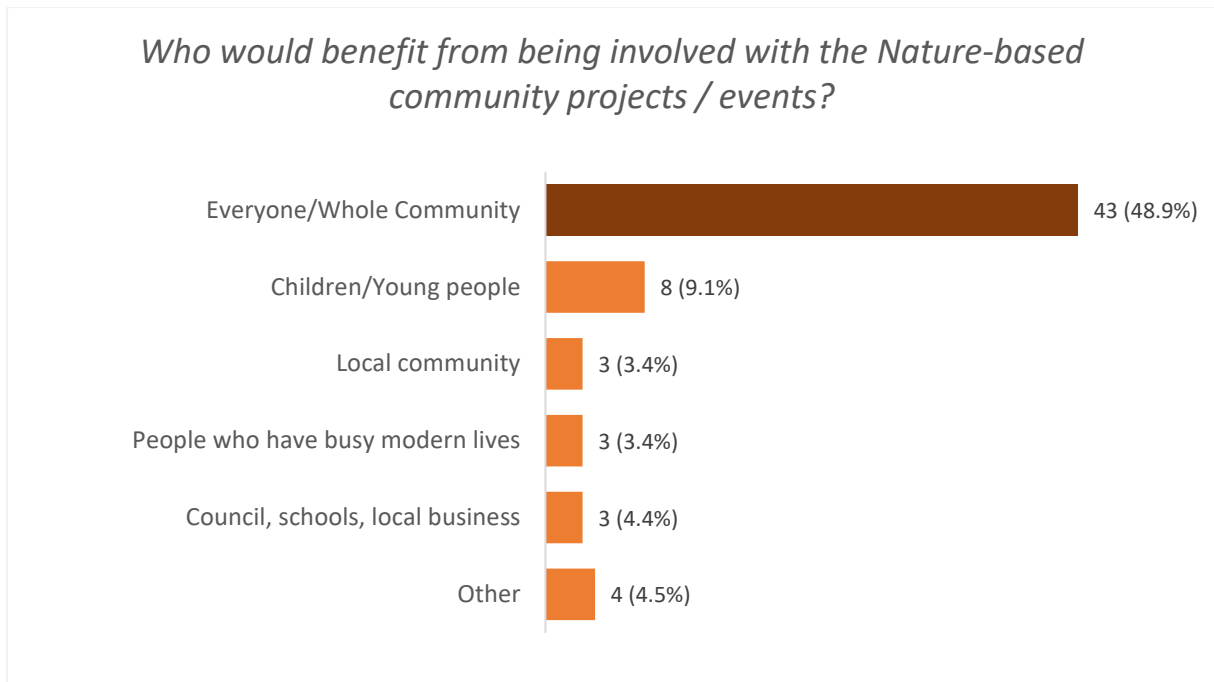


Figure 13. The groups who would benefit from being involved in nature-based community projects or events. Participants were also asked to explain why they mentioned those groups. ‘Getting back and connecting to nature’ was the top response (n=9, 10.2%), followed by ‘Giving back and taking care of nature’ (n=8, 9.1%) and ‘Connecting people with a shared purpose’ (n=8, 9.1%) (Figure 14).

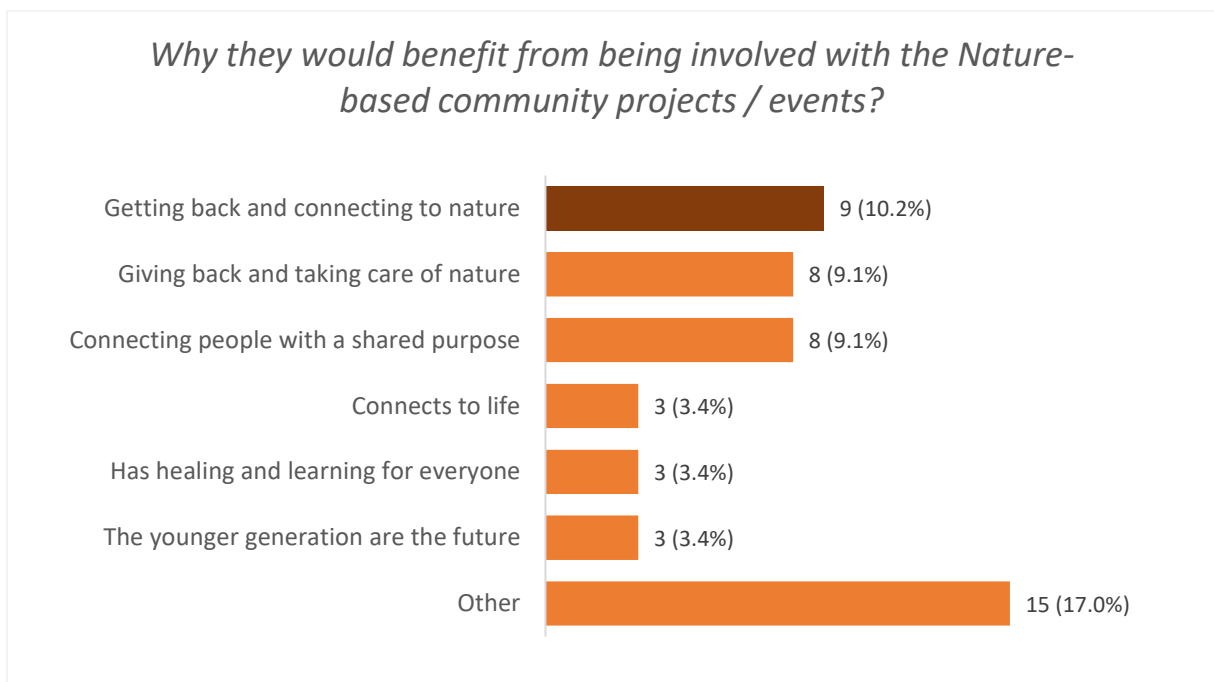


Figure 14. The reason for benefitting from the involvement in nature-based community projects or events

Examples of responses under ‘Getting back and connecting to nature’ were:

*“Because most people are far too disconnected these days. Without connection we won’t want to protect nature and without nature, we can’t survive.”* (Participant, Glenaladale)

*“People who are really involved in their modern life, they can go back to nature and find peace and harmony.”* (Participant, Lakes Entrance)

Other responses include topics related to ‘*Linking with nature and First Nations history and heritage*’, ‘*Protecting their livelihoods from threats*’, and ‘*Provides opportunity for learning and sharing information*’.

An example of a quote under the ‘Other’ category was:

*“Connection to community builds resilience, hopefulness, purpose, communication, broadens our understanding and knowledge and skills.”* (Participant, Landcare group)

Participants were asked to provide any other comments or feedback about the nature-based community project / event. Thirty-five participants answered this question and responses can be included in more than one code of comments or feedback (Figure 15).

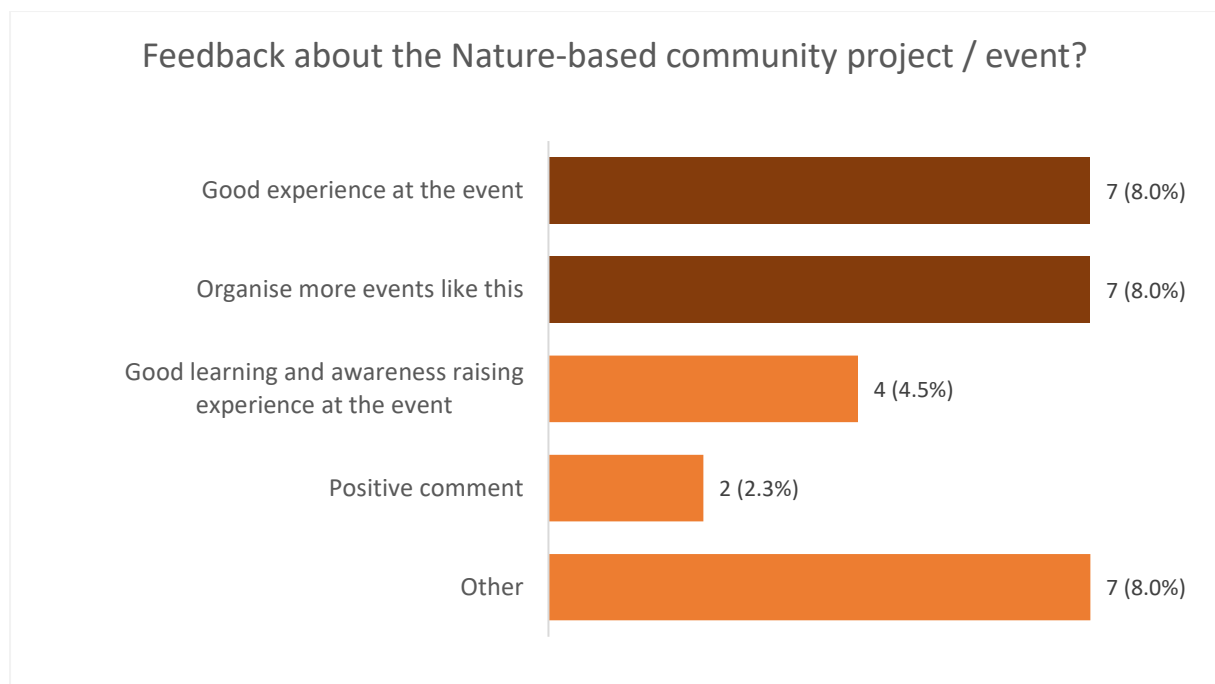


Figure 15. Comments or feedback about the nature-based community project/event

There were 12 “Other” comments and feedback collected from participants that did not fall under the identified codes. Selected comments of feedback were the following:

*“It’s awesome! Can’t wait to see all the trees and plants we planted in 5, 10, 15, 20, 30 years.”* (Participant, Glenaladale)

*“It was great to work with ecologists, educators and researchers to connect students to Country through these projects.”* (Participant, Orbost)

In terms of the final outcome of the nature-based community project /event, most respondents (n=66, 75.0%) were satisfied with the outcome of the nature-based community project/ event. Only a few (n=3, 3.4%) were dissatisfied, and 6 participants (6.8%) were “neither satisfied nor dissatisfied” (Figure 16). Thirteen participants did not answer this question.



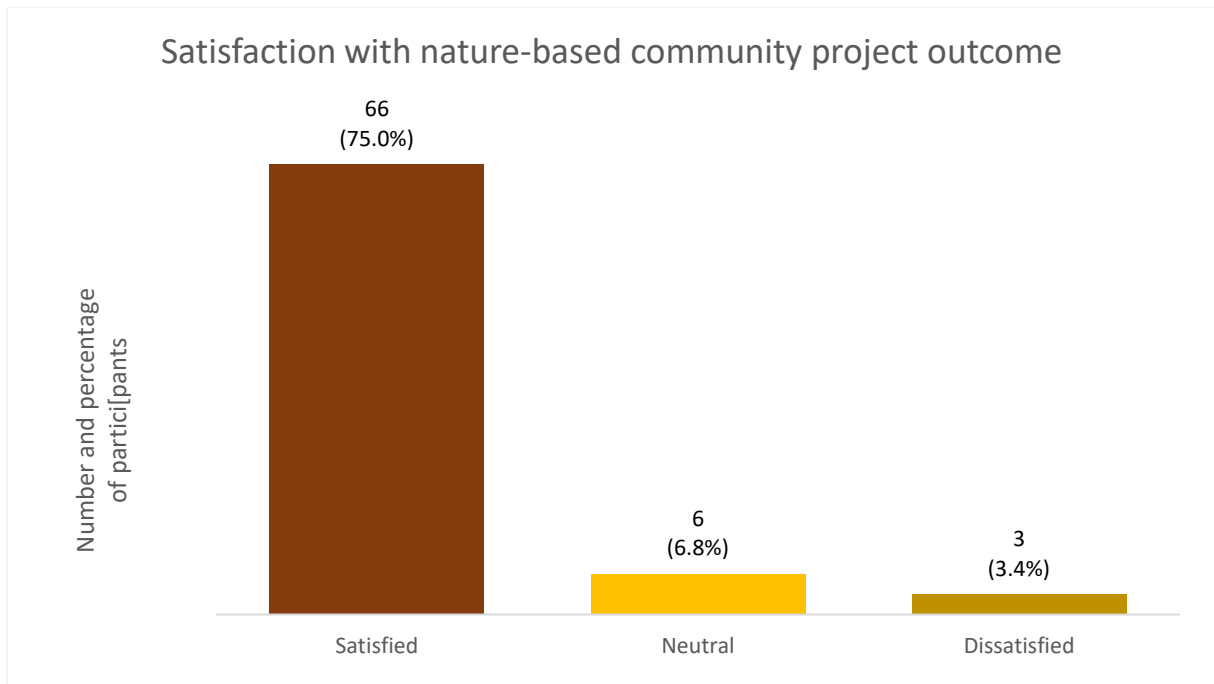


Figure 16. Participants’ satisfaction with the nature-based community project outcomes

When asked if they would recommend a nature-based recovery grants project in the future, most participants (n=69, 78.4%) responded ‘Yes’. Only 3 participants (3.4%) answered ‘No’ to this question. There were 15 participants who did not respond to this question.

When asked to explain why they had given their chosen answer, of those who responded ‘Yes’, a large proportion of responses were related to “Connecting people and getting them involved” (n=15, 17.0%) in activities related to nature. This was followed by responses that were related to the events being “It is fun and enjoyable activity” (n=7, 8.0%) and “Provides education” (n=7, 8.0%) (Figure 17). A response can belong to more than one code.

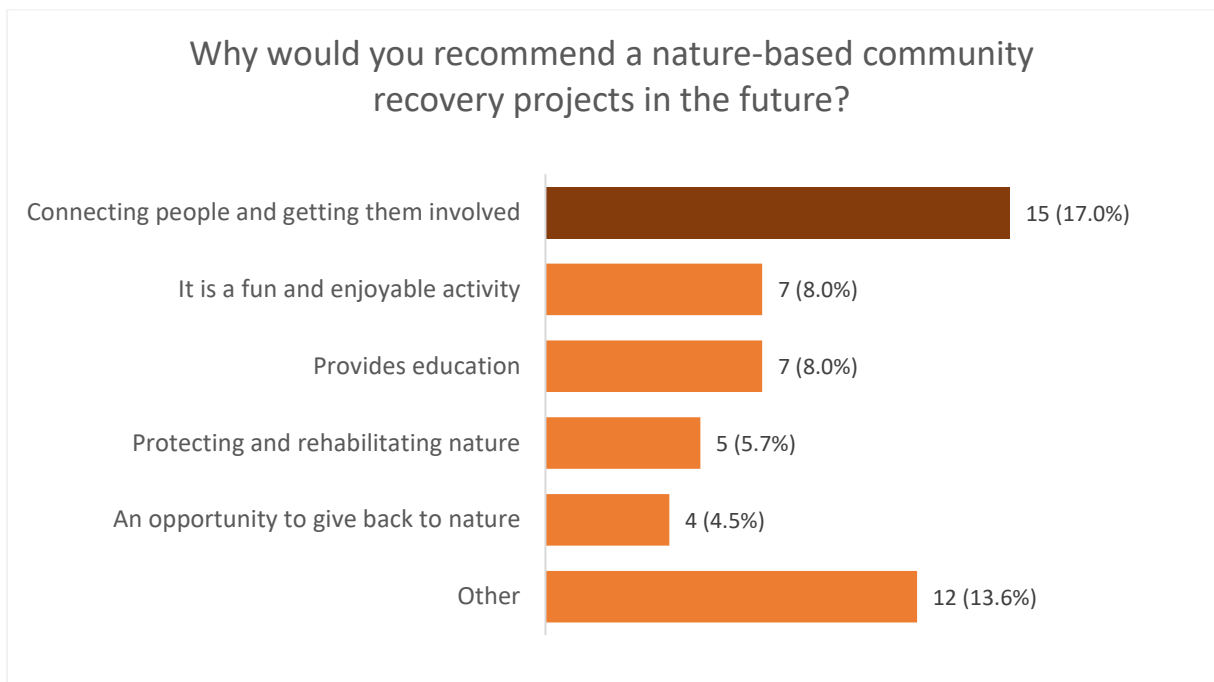


Figure 17. Reasons for recommending nature-based community recovery project

An example of a quote from participants related to “Connecting people and getting them involved” and “Provides education” was:

*“The more we connect and educate the community of the importance of biodiversity the better for our native flora and fauna and hope for the planet earth.”* (Participant, Landcare group)

Figure 18 represents the word cloud generated from responses about why the nature-based community recovery project would be recommended by participants.



Figure 18. Reasons for recommending nature-based community recovery project

### PRINCIPAL COMPONENT ANALYSIS

Principal Component Analysis (PCA) was performed on Likert-scale questions using Jamovi Statistical Software<sup>10</sup>. PCA is used as a method for dimension reduction or finding groupings of similar factors or variables. In this analysis, Question 2 (After participating in the nature-based community project / event, do you agree or disagree with the following statements), negative statements were reversed to the positive including the responses. Texts that are written in the capital are reversed statements.

Applying principal components analysis on the statements included in this question created six components: (1) *calmness*, (2) *hope*, (3) *safety*, (4) *connections*, (5) *company*, and (6) *source of hope*. The first and third components (*calmness* and *safety*) combine different statements on feeling safe and calm when in nature. The second component *hope* is related to the positive feelings, emotions and hope that participants experience when they spend time in nature, while the last component *source of hope* includes statements about nature and family as possible sources of hope. The component *connections* represents the connection with nature as well as the community. Finally, the component *company* shows that participants prefer to be either with family or alone when they are in nature.

<sup>10</sup> The jamovi project (2022). jamovi. (Version 2.3) [Computer Software]. Retrieved from <https://www.jamovi.org>.

Table 1. Feelings after nature-based community project / event

<i>Component 1: Calmness</i>
I DO feel safe when I am in nature
Being in nature DOES NOT make me feel anxious
I feel the calmest when I am in nature
I DO NOT get worried when I take my family out in nature
I feel calm when I spend time in nature
Nature has a calming effect on me
I feel MORE in control when I am in nature
I feel POSITIVE emotions when I am in nature
<i>Component 2: Hope</i>
Being in nature has a positive effect on my emotions
I have a greater sense of self when I am in nature
I feel a sense of belonging when I am in nature
Nature connects me to the world
Watching nature grow gives me hope
I feel hopeful for the future when I see nature grow
<i>Component 3: Safety</i>
Having nature around my home helps me to feel safe
Nature has SOMETHING to do with feeling safe
Nature is linked to my feelings of safety
Being in nature makes me feel safe
<i>Component 4: Connections</i>
Connecting with nature makes me feel connected to my community
Hope comes from being in nature
I feel connected to my community when I am in nature
<i>Component 5: Company</i>
I enjoy nature better when I am with my family
I do not like to see other people when I am out in nature (-)
<i>Component 6: Source of hope</i>
Hope IS present in nature
My family not nature gives me hope (-)

PCA was also applied for Question 5 with a series of statements on the feelings about being in nature. Two components were extracted and labelled as (1) *relationship with nature* and (2) *connections with nature* (Table 2).

The statements that were grouped into component 1 represented the relationship that participants have with nature. The relationship is characterised by the emotional connection and spending time in nature and the concern for nature. Participants also gain the benefit of being able to deal with everyday stress and being able to do things that they like the most when in nature. Statements that were included in component 2 were related to connections with nature and represented the connection between nature and human beings as well as between different elements in nature itself.

Table 2. Feelings towards Nature

<i>Component 1: Relationship with nature</i>
My relationship with nature is a big part of how I think about myself
I feel a strong emotional connection to nature
I feel uneasy if I am away from nature for too long
I think of myself as someone who is very concerned about taking care of nature
I enjoy spending time in nature
I like to get outdoors whenever I get the chance
Feeling connected to nature helps me deal with everyday stress
Being in nature allows me to do the things I like doing most
<i>Component 2: Connections with nature</i>
Everything in nature is connected (e.g. animals, plants, humans, water, air, land, fire, etc.)
Human wellbeing depends upon living in harmony with nature
I feel right at home when I am in nature
Human being and nature are connected by the same 'energy' or 'life-force'

## SUMMARY AND CONCLUSION

Data from the nature-based community recovery project survey demonstrated that the majority of participants (75.0%) were satisfied with the outcome of the nature-based community project or event, and most (78.4%) would recommend it in the future. The participants' feedback was very positive about the Nature-Based Community Recovery Project as they were able *'to enjoy wildlife without disturbing it'*, the project made them *'feel calm and relaxed'*, *'excited and amazed'* and it took *'their mind off stresses or problems'*. The best part of the project, for the majority of participants, was *'connecting with people, community and nature'*, *'experiencing and interacting with nature'*, *'gaining new knowledge on appreciating nature'*, *'doing arts and crafts'*, and *'meditation'*. The participants found the nature-based project interesting, informative and well-organised. In addition, according to the participants' comments, it was a good learning and awareness-raising experience at the event. The importance of the nature-based community recovery projects or events was recognised for connecting and educating people, and getting them involved in different activities including nature protection and rehabilitation.

In terms of the relationship with nature, the analysis revealed that participants enjoyed being in nature for multiple reasons, including *"feeling calm"*, *"safe"*, *"peaceful"* and *"hopeful"* and *"having a positive effect of nature on emotions"*. In addition, the majority of participants acknowledged the role of nature in our lives not only because it makes us feel *'relaxed, calm and comfortable'* but also because it *'connects us with ourselves', family, people, community and nature itself*.

## 4.2 THEMATIC ANALYSIS – INTERVIEWS WITH NATURE-BASED ACTIVITY PARTICIPANTS

### INTRODUCTION

The CERC research team attended a Winter Festival in East Gippsland in September 2023 to explore a range of nature-based activities that were facilitated across the region. The team attended four events: two nature immersion events, one large community evening event and one local Landcare group meeting separate from the Winter Festival. From these events, 9 participants agreed to be interviewed to share their experiences of the events and how they connected with nature-based recovery post the Black Summer bushfires. Interviews with participants were semi-structured and lasted approximately 9 to 29 minutes in duration. A thematic analysis method was used to analyse interview data, which generated one major theme “*Pathways to healing*”, and four minor themes: In the reflective pond, Learning in nature, Walking hand in hand and The path forward (Figure 19).

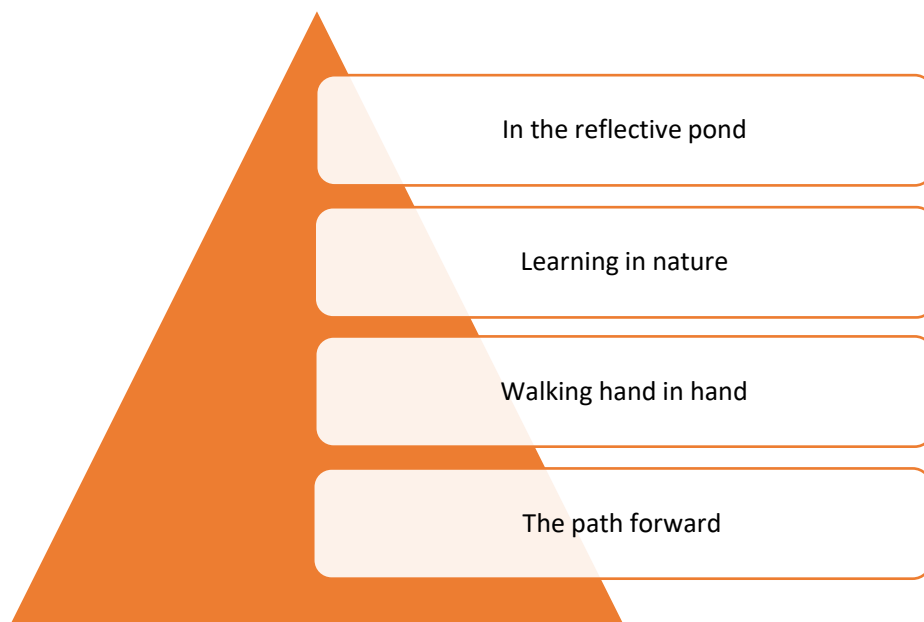


Figure 19. Pathways to healing - Thematic analysis: minor themes

#### Minor theme 1 – In the reflective pond

In the first minor theme, participants reflected on the personal impacts of the Black Summer bushfires, how it affected them and their livelihoods and how interacting with nature-based community events impacted their wellbeing, “*everybody in East Gippsland was affected by that fire, whether or not you actually lost anything*” (P1). Through the provided nature-based events, participants highlighted that “*sharing their stories*” and “*sharing experiences*” (P5) was beneficial to them and “*having likeminded people to talk to*” (P6) provided a safe space for learning and healing:

*“It can be very difficult, environmentally and emotionally to sustain yourself with so much going on and you can feel overwhelmed and when you start to hear other people talk... sitting on the land and listening to the story about the river and how people have tried to help it... it gives you a bit of strength I suppose”.* (P6)

When discussing specific nature-based events that participants attended, *“the elements of the day were just very aligned with being as easy on nature as possible”* (P1). The *“celebration of nature”* (P1) saw participants engaging with nature items such as leaves, grasses and wood to learn ways of creating art, meeting new people and healing along the journey:

*“The touching, the sensing, the hearing of the reality of these things is at your fingertips, it’s with you in those moments and you move away with that in you”*. (P6)

One participant described that the nature-based event was *“an accidental kind of therapy that happens and I think especially when you are combining nature and art together”* (P1). In reflection on attending the nature-based events, it was described as *“very worthwhile”* (P5) and the impacts of the day would be felt beyond the single session:

*“I think everyone felt good about what happened on the day. I think everyone left quite happy and everyone got to be involved and even tell their stories about why it was important for them to be there. So I think the other community members that were there probably felt quite good after the day and quite empowered about looking after the environment and meeting people who care about it as well”*. (P2)

The events were described as being *“minimally impacting”* on nature whilst providing *“maximum benefit”* (P1) to the participants. When reflecting on the specific events, participants were encouraged to *“carry that mindfulness with them beyond the day”* (P1).

#### **Case study**

*“I have been running native flora mono-printing in one form or another... It was something that I kind of developed for my own art practice, but also as part of my own, it sounds corny, but my own healing journey after the 2019/2020 bushfires, where a friend came over to my house and I got pretty badly burnt out in the fires as well. The house did catch on fire, but it wasn’t completely destroyed. We went and collected some native flora samples, and then we did printing from them. It was really fun and it was this real connection to place then it was almost like I guess in a way, a advent or a lifting up of that local flora that was around me that had been so very, very damaged through those fires”* – **Nature-based event participant**

#### **Minor theme 2 – Learning in nature**

Participants who engaged with the nature-based events stated how they were not only good for healing, but also learning. This learning manifested as finding out more about plant species and geography, whilst also learning more about oneself, *“breathing and relaxing... the way they made us slow down and just rest and listen quietly to what was happening around us as far as the nature aspect”* (P3). Having the event be *“local”* (P6) and *“the people that ran it were knowledgeable”* (P2) ensured participants could immerse themselves entirely in the event:

*“People that are landholders came along, learnt from the experience and probably learnt a bit about tree planting, revegetation and the importance of protecting threatened species”*. (P5)

Through the shared experiences, participants described being in nature as *“very consoling”* (P6), *“therapeutic and relaxing”* (P4). For some, these experiences were able to be shared with loved ones

during the nature-based events, *“it was enjoyment for myself and something that I got to share with my family”* (P8). During these shared experiences, participants learnt more about building connections with self and surroundings:

*“[The events] had an aspect of environmental education and awareness as well. Increasing people’s knowledge and that kind of thing also one of the aspects of forest therapy or nature therapy is about building a connection to the area and nature, which then enhances empathy... People care about things that they understand and empathise for and want to look after them”.* (P4)

When building empathy through learning about nature, participants engaged in the events were encouraged to *“be mindful of what you take”* and *“remember that foliage from the plant is also home to an animal and is also nutrients for the soil”* (P9).

### **Minor theme 3 – Walking hand in hand**

A key discussion point for participants engaged in the nature-based events was around being with *“like-minded people”* (P1, P2, P4) who shared their passion for the environment. Participants mentioned that the community *“can be pretty closed off”* (P2) at times and highlighted that bringing people together for the events built new connections:

*“Collaboration, really good collaboration, you end up producing more than you could have done as individuals and then just sticking together. Just seeing people enjoying making art from nature, both of those things were really enjoyable for me personally”.* (P1)

When talking about the new friendships made during the events, participants highlighted that the nature-based event *“draws a certain kind of persons that are open to that nature experience and sharing, which is really important I think as an aspect of wellbeing”* (P4). When discussing wellbeing, participants highlighted that the benefits of this group activity were various:

*“It was great to see people involved in an activity that involved exercise, nature therapy, tree planting and discussions around environmental issues”.* (P5)

Another important relationship fostered during the nature-based events was the connection with the local Aboriginal and Torres Strait Islander Peoples. Participants mentioned that during some events, having an *“Indigenous presenter”* (P1) who taught *“respect for the land”* (P1) was culturally sensitive and appropriate. From an Aboriginal and Torres Strait Islander participant's experience, *“as a traditional custodian of the area, I thought it was important to deliver my perspective”* (P9).

Having the local nature-based events open to all meant that some people travelled across the state to attend. This attendance from people outside of East Gippsland was encouraging for participants as the area does *“thrive on tourism”* (P8). They believed it benefitted their local economy and the sharing of local knowledge, *“[tourists] come and spend money, they visit a lot of the local historical places... It’s nice to have the visitors come and visit our little part of the world”* (P7). Participants also enjoyed seeing local community members at events, demonstrating community engagement with nature-based events:

*“I think almost the whole town was there. So definitely community engagement, which is a good way to interact with people that we already see but may not necessarily know. But you get to share a common experience as well as just spending time with people that we do like to be with, our family and loved ones that we do get to go out with”.* (P8)

Connection with others whilst engaging with nature was a key discussion point for participants, highlighting this as increasing the benefit of the events, making new friends and learning from those involved.

#### **Minor theme 4 – The path forward**

Participants were keen to share their experiences of the nature-based events, and what they might like to see in future within East Gippsland. A discussion point was the frequency of events, with participants wanting “*something consistent*”, and “*something a bit more regular*” (P4):

*“I just want to see more of this happening and just less extraction of natural resources and just more celebration of the beauty that we have”. (P1)*

One participant voiced wanting more of the “*science side*” (P3) of nature when engaged with the events, and others felt that the events were “*probably a bit rushed*” with a suggestion to “*extend the time frame*” (P9) for the specific nature-based activities. Another poignant discussion surrounded the potential for the events to re-traumatise post Black Summer bushfires, with great sensitivity required when facilitating these types of events in East Gippsland:

*“Everyone is trying to move on from the fires, so I don’t know if I’d like to see the event seen as a way of opening up those wounds again”. (P3)*

Participants recognised that issues regarding “*funding*” (P3, P4) the events impacted when, and how often they could run. For participants who were concerned with running nature-based events or activities, they hoped that the “*process for applying for funding was a bit more straightforward*” (P4) and that the planning and coordination of activities could run more efficiently:

*“Things need to be made easy, and not just in paper and emails, meetings and groups... it’s like recycling, you need a compartment for your plastic, your cardboard, you need compartments of how to participant in recovery and protection of nature. When people network, when they’re already doing things, it can be a way of actually seeing it working”. (P6)*

A great love for the region and the local community was evident among those who participated in the nature-based events. When participants described how they “*live out here because we love the land that we live on*” (P1), it was clear that being in nature provided a great sense of healing and connection and gave the opportunity to give back to something they loved.



## 5. DISCUSSION AND RECOMMENDATIONS

### 5.1 DISCUSSION

The discussion will focus on the two research questions that were addressed in this significant body of work to explore how nature has improved the recovery of remote and rural communities affected by bushfires.

#### **Research Question 1:**

**To develop an understanding of how individuals living in rural and remote communities feel about being involved in nature-based community projects and events.**

Data from the nature-based community recovery project survey demonstrated that the majority of participants (75.0%) were satisfied with the outcome of the nature-based community project or event, and most (78.4%) would recommend it in the future. The participants' feedback was very positive about the Nature-Based Community Recovery Project as they were able *'to enjoy wildlife without disturbing it'*, the project made them *'feel calm and relaxed'*, *'excited and amazed'* and it took *'their mind off stresses or problems'*. The best part of the project, for the majority of participants, was *'connecting with people, community and nature'*, *'experiencing and interacting with nature'*, *'gaining new knowledge on appreciating nature'*, *'doing arts and crafts'*, and *'meditation'*. The participants found the nature-based project interesting, informative and well-organised. In addition, according to the participants' comments, it was a good learning and awareness-raising experience at the event. The importance of the nature-based community recovery projects and events was recognised for connecting and educating people, and getting them involved in different activities including nature protection and rehabilitation.

The findings from the nature-based community recovery project survey were supported by the main themes identified through interview discussions. Through the interviews with participants of the provided nature-based events, it was evident that these events helped them to heal from the consequences of the devastating Black Summer bushfires. Being able to share their stories and experiences with people who went through the same natural disaster was beneficial for them:

*"It can be very difficult, environmentally and emotionally to sustain yourself with so much going on and you can feel overwhelmed and when you start to hear other people talk... sitting on the land and listening to the story about the river and how people have tried to help it... it gives you a bit of strength I suppose".*

Engaging with nature, meeting new people, and creating arts and crafts provided *"a kind of therapy"*, the impact of which would be felt beyond the single nature-based event.

The *"environmental education and awareness"* focus of the nature-based events was clearly highlighted in interviews as well. Interview participants noticed that they learnt more about building connections with self and surroundings, as well as building empathy towards nature, which is very important as *"people care about things that they understand and empathise for and want to look after them"*.

The importance of nature-based events for building new connections and bringing people together was a keen discussion point. Being in a group of *"like-minded people"* with the same passion for nature was crucial for their wellbeing. Sharing experiences, learning from each other, and engaging in

activities together were very beneficial for people and the community as well. The nature-based event *“draws a certain kind of persons that are open to that nature experience and sharing, which is really important I think as an aspect of wellbeing”*.

In addition, interview participants expressed their willingness to have more nature-based events in future on a regular basis. They wish to have more activities within the extended time frame. They hoped that the *“process for applying for funding was a bit more straightforward”* and that the planning and coordination of activities could run more efficiently.

Moreover, participants recognised the importance of nature-based events for tourism and economic development in the region. Having the local nature-based events open to all meant that some people travelled across the state to attend. This attendance from people outside of East Gippsland was encouraging for participants as the area does *“thrive on tourism”*. They believed it benefitted their local economy and the sharing of local knowledge, *“[tourists] come and spend money, they visit a lot of the local historical places... It’s nice to have the visitors come and visit our little part of the world”*.

## **Research Question 2:**

**To develop an understanding of the lived experience of individuals in rural and remote communities through nature-based recovery projects.**

Both data from the nature-based community recovery project survey and interviews showed that participants enjoyed being in nature for multiple reasons, including *“feeling calm”, “relaxed”, “safe”, “peaceful”* and *“hopeful”* and *“having a positive effect of nature on emotions”*. Through the interview discussions, participants described being in nature as *“very consoling”, “therapeutic and relaxing”*:

*“... it helps me relax and allows me to focus and appreciate and develop gratitude.”*

*“... it makes me feel safe. I feel grounded and calm. It makes me think of happy things. It amazes me how complex and simple nature can be.”*

In addition, the majority of survey participants acknowledged the role of nature in our lives not only because it makes us feel *‘relaxed, calm and comfortable’* but also because it *‘connects us with ourselves’, family, people, community and nature itself*. The high percentage of participants agreed that they *‘have a greater sense of self’* and *‘feel a sense of belonging’* when they are in nature. They believed that *‘Nature connects them to the world’* and they felt *‘connected to their community’* when they were in nature.

Quantitative analysis revealed that in terms of the connection with nature, almost all survey participants *‘enjoyed spending time in nature’* and *‘liked to get outdoors whenever they get the chance’*. The majority of participants felt *‘a strong emotional connection to nature’* and they felt *‘very concerned about taking care of nature’*. The feeling connected with nature helped them to deal with everyday stress. It was recognised both in survey responses and interviews how important to be in harmony with nature and how human wellbeing depends upon living in this harmony. The looking after environment is crucial.

Slightly more than half of survey participants enjoyed nature better when they were with their families, while one-third remained neutral about this statement. One-third of participants would like to share the experience of being out in nature with other people, while another third of participants were neutral.

It was interesting to note that according to evaluation findings, for almost all survey participants, nature gives hope and is considered a significant source of hope along with the family. During interview discussions, it was highlighted that nature is healing and helping to cope with difficulties. The combination of art activities and being in nature provides a therapeutic and consoling effect:

*“I have been running native flora mono-printing in one form or another... It was something that I kind of developed for my own art practice, but also as part of my own, it sounds corny, but my own healing journey after the 2019/2020 bushfires”.*

*“The touching, the sensing, the hearing of the reality of these things is at your fingertips, it’s with you in those moments and you move away with that in you”.*

One participant described that the nature-based event was *“an accidental kind of therapy that happens and I think especially when you are combining nature and art together”*. In reflection on attending the nature-based events, it was described as *“very worthwhile”*:

*“I think everyone felt good about what happened on the day. I think everyone left quite happy and everyone got to be involved and even tell their stories about why it was important for them to be there. So I think the other community members that were there probably felt quite good after the day and quite empowered about looking after the environment and meeting people who care about it as well”.*

Overall, this analysis demonstrates strong support for the positive effect of the Nature-Based Community Recovery Project on the recovery of remote and rural communities affected by bushfires. A high level of satisfaction and positive feedback from participants indicate the success of the nature-based events. The demand for nature-based events was sounded and their importance for the community, people and nature was highlighted.

## 5.2 RECOMMENDATIONS

Several recommendations regarding the Nature-Based Community Recovery Project have been identified throughout this evaluation. The following recommendations are based on the findings of this report:

1. Continue to run the various nature-based events in East Gippsland to gain further data on its effectiveness and ability to adapt based on the needs of the community.
  - e. Continuation of projects and/or events will allow people to participate in events, improve their wellbeing and enhance community engagement.
  - f. Continuation of projects and/or events will increase environmental awareness among the population, and participation in different nature protection and rehabilitation activities.
  - g. Additional data may provide further insight into the understanding of the lived experience of people connecting with nature.
  - h. Additional data on nature-based community projects and events can allow for improvement of the events and activities to meet the requirements and needs of the community.
2. Undertake the nature-based community recovery project survey of the community on their preferences and interests in terms of future potential nature-based events/activities.

- c. Understanding of preferences and interests of target groups will allow to modify and adjust the projects/events/activities to best meet the interests and needs.
  - d. In turn, it will lead to a high level of satisfaction of participants and increase the demand for such events.
3. Expand the types of nature-based events and locations to provide a wide range of possible events/activities and sites.
- d. Different kinds of nature-based events/activities will meet the requirements and needs of various target groups.
  - e. More locations involved in the program will allow to cover a wider area for facilitating nature-based events, environmental awareness and community engagement.
  - f. Nature-based events with different focuses (e.g. educational, mediation, relaxation, nature protection and rehabilitation) will attract people with different interests and needs.
4. Promote nature-based events more widely and make them open for people from the whole of Australia and international visitors as well.
- c. Promotion of nature-based events will increase tourist flow to the region.
  - d. In turn, this will boost economic development the region.

## 6. LIMITATIONS

There were limitations related to this evaluation that must be considered. These included:

1. The COVID-19 pandemic disrupted the evaluation of the project, causing delays and difficulties in collecting and analysing data.
2. A larger sample size of survey respondents would have been ideal to gain a deeper understanding of how individuals living in rural and remote communities feel about being involved in nature-based community projects and events.
3. The sensitivity of data being collected from participants that relates to bushfire recovery may have hindered their likelihood to agree to be interviewed regarding their experiences of nature-based activities.

Despite these limitations, the evaluation is considered to present a credible assessment of the project.

## 7. METHODOLOGY

### 7.1 CONCEPTUAL FRAMEWORK

The approach of the CERC to this evaluation was informed by a Participatory Evaluation and Co-Design Framework.

#### PARTICIPATORY EVALUATION

A participatory evaluation framework puts people from the community and those delivering the programs, projects and services at the centre of the evaluation. Participatory evaluation is a distinctive approach based on the following principles:

- That evaluation should be a co-designed, collaborative partnership through 360° stakeholder input including project participants and project funders;
- That integral to evaluation is an evaluation capacity-building focus within and across projects;
- That evaluation is a cyclical and iterative process embedded in projects from project design to program assessment;
- That evaluation adopts a learning, improvement and strengths-based approach;
- That evaluation supports innovation, accepting that projects will learn and evolve;
- That evaluation contributes to the creation of a culture of evaluation and evaluative thinking;
- That there is no one or preferred data collection method rather the most appropriate qualitative and quantitative methods will be tailored to the information needs of each project.

#### CO-DESIGN

Co-design is a process and approach that is about working with people to create ‘interventions, services and programs which will work in the context of their lives and will reflect their own values and goals’<sup>11</sup>. Co-design can be done in many ways but is about collaborative engagement that is bottom-up, creative, and enables a wide range of people to participate and importantly steer decisions and outcomes. Co-design is not a consultation process but a partnership approach where ‘end-users’ actively define and shape strategies and outcomes. The role of the ‘expert’ is to facilitate this process.

### 7.2 EVALUATION METHODOLOGY

The evaluation of the project utilised a variety of data collection tools in a mixed methods approach providing information about process, outcomes, impact and capacity building. Qualitative and quantitative data were collected and analysed as described below.

#### QUANTITATIVE DATA

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<sup>11</sup> VCOSS (2015). *Walk alongside: Co-designing social initiatives with people experiencing vulnerabilities*. V. C. o. S. Service. Melbourne.

The modified Hatty (2020) survey tool<sup>12</sup> and Evaluating Nature Activities for Connection Tool (ENACT)<sup>13</sup> were utilised to explore participants' feelings of safety, calm, connectiveness, hope and involvement with nature-based recovery projects. The nature-based community recovery project survey was undertaken during four local community events in East Gippsland. The survey had a combination of multiple choice, Likert scale and open-ended questions. A paper-based survey was administered during the events and completed forms were collected by the CERC evaluation team, who encoded responses in Qualtrics. Then data were entered into the Statistical Package for Social Sciences (SPSS)<sup>14</sup> for analysis and reporting.

The survey design:

- Allowed for the collection of information from a defined group of stakeholders.
- Enabled a large amount of data to be collected quickly.

## QUALITATIVE DATA

Individual semi-structured interviews were undertaken to explore the lived experience of people connecting with nature and their experiences of being involved in nature-based community projects and/or events. The CERC research team attended four events in September 2023 and invited event participants who engaged with surveys to take part in interviews to share their experiences of the events, and how they connected with nature-based recovery post the Black Summer bushfires. Semi-structured interview questions were trauma-informed and designed to guide the researcher to capture all desired information while providing flexibility for the participant to elaborate on their experience (see Appendix 3).

## Data Analysis

Descriptive statistical analysis was performed using SPSS to better understand how individuals living in rural and remote communities feel about being involved in nature-based community projects and events. In addition, Principal Component Analysis was undertaken using Jamovi software<sup>15</sup> to identify underlying dimensions for two questions about the participants' feelings after nature-based community projects and events and their feelings about being in nature.

A thematic analysis technique was used for the qualitative data with findings presented under theme headings together with participant quotes. The thematic analysis utilised Braun and Clarke's six-step process<sup>16</sup> which included familiarisation with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes and producing the report (Figure 20).

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<sup>12</sup> Hatty, MA. et al (2020) The CN-12: A Brief, Multidimensional Connection With Nature Instrument, *Frontiers in Psychology* 11, 1566. <https://doi.org/10.3389/fpsyg.2020.01566>

<sup>13</sup> Carr, V., & Hughes, J. (2021). Predicting the development of adult nature connection through nature activities: developing the evaluating nature activities for connection tool. *Frontiers in Psychology*, 12, 618283. <https://doi.org/10.3389/fpsyg.2021.618283>

<sup>14</sup> Statistical Package for Social Sciences (SPSS) (2023). (Version 29) [Computer Software]. <https://www.ibm.com/spss>

<sup>15</sup> The jamovi project (2022). jamovi. (Version 2.3) [Computer Software]. Retrieved from <https://www.jamovi.org>.

<sup>16</sup> Braun, V. and Clarke, V. (2022) *Thematic analysis: a practical guide*. SAGE Publications Ltd

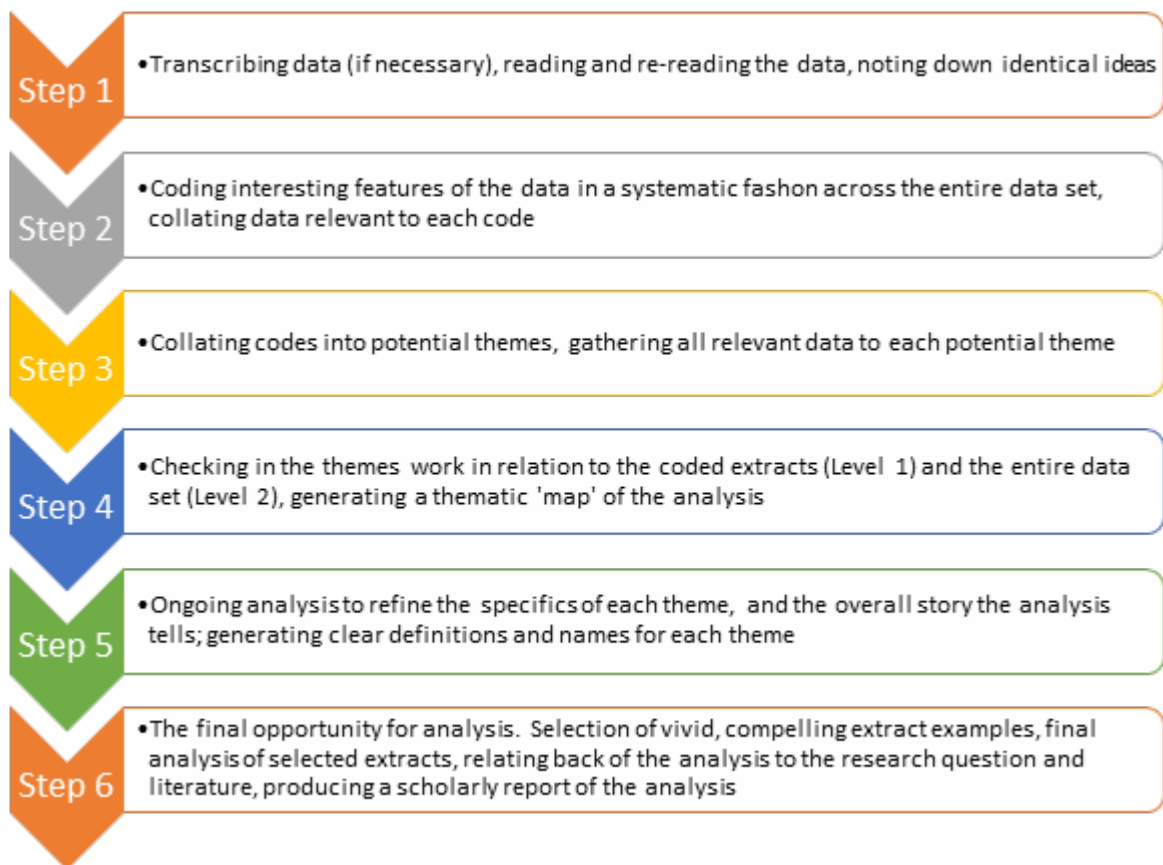


Figure 20. Six-Step Thematic Analysis

As qualitative analysis is an inductive process, some interpretation of the data was required to create the thematic map. It was actively acknowledged that the researcher's interpretations would inform the results of this study, hence, any prior conceptions of the topic were reflexively bracketed to the best of the researcher's abilities<sup>17</sup>.

<sup>17</sup> Berger, R. (2013). Now I see it, now I don't: Researcher's position and reflexivity in qualitative research. *Qualitative Research*, 15(2), 219-234. <https://doi.org/10.1177/1468794112468475>

## 8. ETHICAL APPROVAL AND PRACTICE

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Federation University aims to promote and support responsible research practices by providing resources and guidance to our researchers. We aim to maintain a strong research culture which incorporates:

- Honesty and integrity;
- Respect for human research participants, animals and the environment;
- Respect for the resources used to conduct research;
- Appropriate acknowledgement of contributors to research; and
- Responsible communication of research findings.

Human Research and Ethics applications, *Nature-Based Community Recovery Evaluation (Approval number: 2021-108)* was approved by the Federation University Human Research Ethics Committee (Appendix 2) prior to data collection and analysis. Participant anonymity was maintained by removing any identifiable information from the evaluation.

## 9. ABBREVIATIONS

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ARI	Arthur Rylah Institute for Environmental Research
BBRR	Bushfire Biodiversity Response and Recovery
BRV	Bushfire Recovery Victoria
CERC	Collaborative Evaluation & Research Centre
DELWP	Department of Environment, Land, Water and Planning
NBRA	National Bushfire Recovery Agency
PCA	Principal Component Analysis



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## APPENDIX 1: HUMAN RESEARCH ETHICS APPROVAL

<b>Principal Researcher:</b>	Associate Professor Joanne Porter	
<b>Co-Researcher/s:</b>	Dr Michael Barbagallo Prof Wendy Wright Maryam Ghasemiardekani	Michelle James Ms Val Prokopiv
<b>School/Section:</b>	<b>School of Health</b>	
<b>Project Number:</b>	<b>A21-108</b>	
<b>Project Title:</b>	<b>Nature Based Community Recovery Evaluation.</b>	
<b>For the period:</b>	17/08/2021 to 31/12/2022	

*Quote the Project No: A21-108 in all correspondence regarding this application.*

Approval has been granted to undertake this project in accordance with the proposal submitted for the period listed above.

Please note: It is the responsibility of the Principal Researcher to ensure the Ethics Office is contacted immediately regarding any proposed change or any serious or unexpected adverse effect on participants during the life of this project.

In Addition: Maintaining Ethics Approval is contingent upon adherence to all Standard Conditions of Approval as listed on the final page of this notification.

### **COMPLIANCE REPORTING DATES TO HREC:**

Annual project report:

**17 August 2022**

Final project report:

**31 January 2023**

The combined annual/final report template is available at:  
HREC Forms



Fiona Koop  
**Coordinator, Research Ethics**  
**17 August 2021**

**Please note the standard conditions of approval on Page 2:**

## **STANDARD CONDITIONS OF APPROVAL**

1. Conduct the project strictly in accordance with the proposal submitted and granted ethics approval, including any amendments made to the proposal required by the HREC.
2. Advise (email: [research.ethics@federation.edu.au](mailto:research.ethics@federation.edu.au)) immediately of any complaints or other issues in relation to the project which may warrant review of the ethical approval of the project.
3. Where approval has been given subject to the submission of copies of documents such as letters of support or approvals from third parties, these are to be provided to the Ethics Office prior to research commencing at each relevant location.

Submission for approval of amendments to the approved project before implementing such changes. A combined amendment template covering the following is available on the HRE website: <https://federation.edu.au/research/support-for-students-and-staff/ethics/human-ethics/human-ethics3>

- Request for Amendments
  - Request for Extension. Note: Extensions cannot be granted retrospectively.
  - Changes to Personnel
4. Annual Progress reports on the anniversary of the approval date and a Final report within a month of completion of the project are to be submitted by the due date each year for the project to have continuing approval.
  5. If, for any reason, the project does not proceed or is discontinued, advise the Committee by completing the Final report form.
  6. Notify the Ethics Office of any changes in contact details including address, phone number and email address for any member of the research team.
  7. The HREC may conduct random audits and / or require additional reports concerning the research project as part of the requirements for monitoring, as set out in the National statement on Ethical Conduct in Human Research.

**Failure to comply with the *National Statement on Ethical Conduct in Human Research* 2007 (Updated 2018) and with the conditions of approval will result in suspension or withdrawal of approval.**

## APPENDIX 2: HUMAN RESEARCH ETHICS APPROVAL – DATE EXTENSION

Dear Joanne,

I am pleased to advise that Amendment Request dated, 13/02/2023, for your project, titled '*Nature based community recovery evaluation*', reference **A21-108**, has been approved.

Please note that all requirements and conditions of the original ethical approval for this project still apply.

If you have any queries or concerns, please contact the Ethics Team via email at [research.ethics@federation.edu.au](mailto:research.ethics@federation.edu.au) or call +61 3 5327 9765.

Kind regards,

**Research Ethics Team**

Research Services | Research and Innovation

**Federation University Australia**

[research.ethics@federation.edu.au](mailto:research.ethics@federation.edu.au)

[federation.edu.au/research/support-for-students-and-staff/ethics/human-ethics](https://www.federation.edu.au/research/support-for-students-and-staff/ethics/human-ethics)



### APPENDIX 3: INTERVIEW QUESTIONS

- How did you feel attending the community event in XX?
- What motivated you to attend?
- How do you connect with nature?
- How does being connected with nature feel for you?
- Have you been involved in any projects that have restored natural environments? Can you please describe the project and what was it like to be involved?
- How is being connected with nature important for communities after a bushfire?
- Do you have any stories that you would like to share about the recovery of nature in your hometown?



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