# Connecting Nature Connection Activities in Australia

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for

the Blue Mountains World Heritage Institute and the IUCN NatureForAll campaign





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- Appendix 5: Summary of Australian Nature Connection Projects (by location)

# 1. Executive Summary

Connecting people with nature to foster enduring environmentally-sensitive behaviour has become a recent focus of the International Union for Conservation of Nature (IUCN), through its global #NatureForAll movement that strives to connect people with nature, especially those who may not otherwise do so.

The purpose of this research project was to survey nature connection efforts in Australia, with the aims to:

- Showcase the extent and range of nature connection activities in Australia
- · Build the nature-connection community of practice in Australia
- Inspire others to participate and collaborate

In doing so, this report provides insights into the nature connection work occurring within Australia, including for whom they are being run, their key activities and the outcomes they are seeking.

A total of 184 nature connection efforts across Australia were identified during a six-week survey period. The survey link remains open to allow further nature connection projects to continue to be recorded beyond the brief timeframe of this study.

The range of nature connection activities included:

- · Youth Bush Skills workshops of the Eastern Metropolitan Regional Council in WA
- Connecting with Country programs of Mimal Land Management (NT) and the Nature Foundation (SA)
- A native plant nursery at Berry Primary School
- Little Explorers classes of the McArthur Centre for Sustainable Living in NSW
- The Little Seeds Nature Playgroup of the Royal Botanic Gardens Victoria
- Friends of Grassland volunteer conservation group in the ACT
- A Discovery Ranger program in Tasmania
- · Reef HQ Turtle Hospital in Queensland

The detail for each of the 184 nature connection projects is provided in attached appendices, to demonstrate the unique purpose, design and outcomes for each project, and this report presents an overall analysis to show trends across the projects.

#### In summary:

- 50% of projects exist at a local level through local councils (37%) and community-run groups (13%). Both state and federal environment bodies recorded multiple nature connection projects.
- 52% of projects reported that their audience includes all age groups.
- 61% of projects were cost-free, with another 3% reporting that cost was either included in school fees or free for some of their programs.
- 82% of projects were in urban or semi-rural locations. There was a dominance of projects in NSW and
  Victoria, reflecting both Australia's population distribution as well as a potential bias in data collection since
  the initial networks for survey distribution were in these states.
- The most common categories for nature connection projects were education (28%), community-building (24%) and preschool and primary children (15%).

- Few projects were reported for the Aboriginal, health & wellbeing, and tourism sectors. Further effort is needed to identify further projects in these sectors.
- Primary objectives of the projects were predominately nature connection (40%), followed by conservation (27%) and education (21%). Considering both the primary and secondary objectives, 75% of respondents ranked nature connection as one of their two key objectives. Interestingly, projects with the primary objective of conservation or education often had nature connection as their secondary objective (and vice versa). Importantly this means these projects are aiming to achieve multiple benefits, such as nature connection, conservation and / or nature education.
- The main activities reported were tactile and experiential (to be expected in nature connection efforts), followed by outdoor nature education and bush rehabilitation. This suggests that a significant proportion of nature connection projects are achieving nature connection not only through specifically designed nature connection programs but also through outdoor nature education and bush rehabilitation efforts.
- In terms of impact, the largest category of beneficial outcomes was the 'immediate environmental benefits' category (28%), and this indicates that nature connection projects do not only have a 'longer term' environmental benefit, but many are having a beneficial impact during or soon after the project.

The Australian Nature Connection Project data is presented in attached spreadsheets (appendices 2-5) including a summary of all projects in Appendix 3, plus projects sorted by category (Appendix 4) and location (Appendix 5).

The depth and breadth of activity underway to connect people of all ages with nature in Australia, for the benefit and wellbeing of people and the planet, is heartening and encouraging as we face unprecedented challenges in nature conservation.

# 2. Introduction

#### **IUCN #NatureForAll movement**

In 2016, the International Union for Conservation of Nature (IUCN) launched #NatureForAll<sup>1</sup> as a global movement to inspire love of and connection with nature. In October 2018, the movement had over 300 partner organizations<sup>2</sup> across 60 countries (Children & Nature Network 2018a).

The #NatureForAll network aims to share knowledge and practice to make nature more accessible to more people. It does this in the hope that by connecting people with nature, people will act to protect the Earth through beneficial environmental behaviour including conservation and more sustainable living.

There is a growing body of evidence to support the beneficial environmental impact that nature connection can have, whereby people are more proactive in conservation if they have more connection. A recent report by the #NatureForAll movement (see Children & Nature Network 2018 a,b) titled *Home to Us All: How Connecting with Nature Helps Us Care for Ourselves and the Earth*, also includes evidence of the more widely recognized physical, mental health and developmental benefits that humans gain from time spent in nature.

Two important findings from the report that highlight the value of creating nature connection are:

People who develop a sense of place are more likely to want to protect it (Children & Nature Network 2018b)

Positive, direct experiences in nature during childhood and role models of care for nature by someone close to the child are the two factors that contribute most to individuals choosing to take action to the benefit of the environment as an adult (Children & Nature Network 2018b)

# What is nature connection and why is it important?

"Nature connection nurtures people connection and vice versa; they are inseparable" (Children & Nature Network 2018b p29). A personal lack of connectedness with nature is accepted by many as an underlying basis for the unsustainability of people on this planet, along with a worldview that "fails to encompass interconnectedness and the interrelatedness of environmental and social issues" (Jordan and Kristjánsson 2017, p.1207). Nature connection should "engage participants in re-examining who we are, and how we are connected to everything around us...any change that is short of that scale will not solve the problems we face" (Ehrenfeld and Hoffman, 2013, p.4).

Zylstra and colleagues (2014) see connectedness with nature as a "necessary prerequisite for realizing desired conservation and environmental behavior outcomes" (p.119). Recent research suggests that environmental knowledge may explain only 2% of what is linked to ecological behaviour, while connectedness to nature explains 69% (Otto & Pensini, 2017).

The Oakland Declaration (2019) defines nature-based learning as learning that occurs in natural settings and where elements of nature have been integrated into built environments. It often involves learning about nature but also extends to engagement in any interest or skill in natural surroundings. It includes experiences at home, in the community, and at school, from free play and exploration to structured activities. Nature-based learning applies to all ages and across the many environments of people's lives.

www.natureforall.global

https://natureforall.global/who-is-natureforall/#partners

There has been a recent growth of projects, activities and efforts to connect people with nature. Nature connection projects focus on connecting those that would not otherwise have the opportunity to connect with nature in this way. *Connection* is the *primary* aim of the activity. A simple example is a bush kindergarten where children play together *in* and *with* nature. In contrast, a Bushcare group may have *land rehabilitation* as its *primary aim*.

#### 3. Project Overview

## **Purpose**

The purpose of this research project was to summarize the current nature connection efforts in Australia, and in particular to:

- Strengthen a nature-connection community of practice in Australia by building awareness of the work of other nature-connection practitioners
- · Showcase the large body of work that is already enabling connections with nature within Australia
- Inspire others to participate and collaborate

In addition, this report aims to provide some general insights into nature connection work in Australia, including the audiences, the primary objectives and the key activities.

The report seeks to present a consolidated view of nature connection efforts in Australia that can be useful for the IUCN #NatureForAll movement, for Australian environmental agencies and NGOs, and for the network of all interested in the effort to connect people with nature, including policy makers.

This report will be made available to:

- All survey contributors to provide further collaboration, knowledge sharing and inspiration.
- The IUCN and the global #NatureForAll community.
- The symposium of the Australian Committee of IUCN in September 2019 on *Healthy People in a Healthy Environment: valuing the social and cultural benefits of nature.*

# **Key Research Questions**

The key research questions of this research project were:

- What nature connection efforts / projects are going on in Australia?
- What are the key objectives of the projects found? (e.g. wellbeing, conservation, nature connection)
- Do they foster ongoing relationships with nature?
- Do they improve / protect environment?
- Is it an immediate or long-term impact?

# Methodology

To identify nature connection activities in Australia, the following approach was used:

- 1. Build contact list of industries and key bodies / organisations to approach (see Table 2).
- 2. Maintain database to record details of people and organisations contacted.
- 3. **Identify the potential categories** of nature connection projects (see Table 1).
- 4. Identify the key research questions to be answered (see Section 2b).
- 5. **Build questionnaire** in Survey Monkey as method of capturing information (see Appendix 1).
- 6. **Send survey link via email**, over a 3 week period starting 15 March 2019, to key contacts and peak bodies identified in Step 1.
- 7. **Continuous contact** period throughout data capture period as recipients would often refer to another person if they couldn't help or had a suggestion of another project. Used 'Contact Us' forms on websites when email not an option.
- 8. **Collect survey responses** for 3-week period from March 15 to April 5. Link remained open to capture any late responses to maximize projects recorded.
- 9. Data file extracted on April 24. This included 16 late responses received after April 5.
- 10. Conduct analysis on key research questions (see section 2b).
- 11. Format list of nature connection projects for sharing.

#### Table 1. Categories of nature connection projects

Survey respondents were asked to classify their project into one or more of the following categories:

- Indigenous
- Preschool / Primary Children
- Youth
- Family Activities
- Adult Education / Training
- Health & Wellbeing (including mental health)
- Community building
- Economies
- Tourism

Table 2. Types of organisations approached

Categories	Examples
Environmental government bodies	The National Parks & Wildlife Service and local councils in each state / territory
Environmental peak bodies and NGOs	Australian Conservation Council, Bush Heritage, and National Parks Association
Nature connection networks	#natureforall, NaturePlay Australia and Nature Educators Network Australia
Major green public spaces	Kings Park (Perth), Royal Botanical Gardens (Melbourne, Cranbourne & Sydney) and Centennial Parklands (Sydney)
National and state tourism bodies	Tourism Australia, Visit Victoria, Tourism Tasmania and Tourism WA
Majors zoos and wildlife experience providers	Currumbin Sanctuary, Rottnest Island, Taronga Zoos, Zoos Victoria, Australia Zoo and Phillip Island Nature Parks

# 4. Findings & Discussion

The 184 nature connection projects identified in this research project are each unique in their purpose, the people they serve, the activities they run and the outcomes they aim to achieve. The projects are important for enabling connections with nature in Australia. This section analyses the projects in categories to identify trends and to provide insights for further projects, policy and gap analysis.

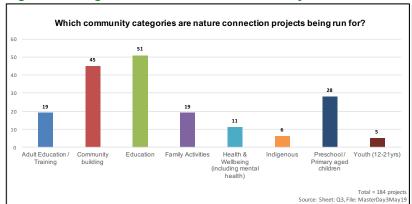
The data is analysed in relation to:

- Demographics
- Key activities
- Project Intentions
- Key Outcomes

## **Demographics of reported nature connection projects**

This section presents the project audiences, location and financial cost.

Figure 1. Categories of Nature Connection Projects



#### Key insight:

The most common categories of nature connection projects were:

- Education 28%
- Community Building 24% (e.g. group talks, bush walks, Landcare groups)
- Preschool & Primary School Aged Children – 15% (e.g. bush kinder)

As shown in Figure 1, it is to be expected that education is the most common category of nature connection projects (28%) given the growing focus in recent years on nature education<sup>3</sup>. Projects in this category include school programs, council programs run for schools and programs run by National Parks and the environmental education centers in NSW. The Youth and Preschool/Primary categories are likely to be under-represented because many of the school based projects for these age based categories have instead been classified as Education. The Adult Education, Community Building, Family Activities and Health & Wellbeing categories also recorded significant numbers. This demonstrates that nature connection efforts are being run for a wide range of audiences and ages.

#### Opportunity for broader use of nature connection projects

Whilst the Health & Wellbeing category recorded 11 nature connection projects, it is noted that only two of the projects were from the Health sector (despite attempts to find other examples), i.e. Royal Rehab with its productive garden for rehabilitation patients and the Heart Foundation (see Appendix 3). The other nine examples had a wellbeing focus. This suggests an opportunity for more nature connection programs in Health given the known health benefits of time spent with nature (Williams 2018; Children & Nature Network 2018b, pg.15). The use of nature for rehabilitation programs could also potentially be extended to other types of rehabilitation centers, including jails and mental health hospitals.

#### Opportunity for future research

The indigenous, wellbeing and tourism categories reported low numbers, with no examples being categorized as tourism. Whilst tourism bodies were contacted, few had little knowledge of the *nature* tourism providers in their areas and therefore further independent exploration would be required to identify these. Similarly, whilst Departments of Education were contacted, head offices limited disclosure of information and, with the exception of NSW, no evidence of projects were accessed within the project timeframes. Given the compressed six-week data capture period, further effort would likely identify further projects in all of the above categories.

<sup>&</sup>lt;sup>3</sup> In NSW, there are 23 Environment Education Centers across the state that support NSW Department of Education and its environment / outdoor education syllabus. Similarly, in Victoria, a recent report by the Kids in Nature Network (2018) found 330 respondents offering nature play, bush kinder and/or outdoor education in Victoria. Given the growth, the Victorian Department of Education & Training (2017) now outlines its regulations relating to the setting up and operation of a Bush Kinder.

Figure 2. Target age groups

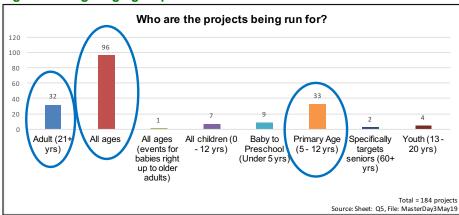


Figure 2 shows that 52% of the projects reported that their audience includes all age groups This means that over half of the projects are accessible activities for families and community groups. It is also not surprising to see Primary-aged children as another common age group and aligns with the most common category being education. The projects in the Adult (21+ yrs) age band fall across a range of categories, mostly the adult education, health & wellbeing and community building categories.

Figure 3. Location of reported nature connection projects

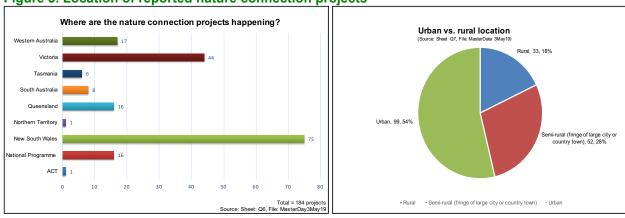


Figure 3 shows that there was a dominance (65%) of projects in NSW and Victoria, reflecting both Australia's population distribution as well as the location of the initial networks for survey distribution. Few projects were reported for the indigenous, health & wellbeing and tourism sectors. Further effort would likely identify further projects in these sectors and in other states and territories. 82% of projects were located in either urban and semi-rural locations where nature connection is less accessible. This also explains the dominance of projects in NSW and Victoria as they are both highly urbanized states with large towns and cities.

Figure 4a. Cost of projects

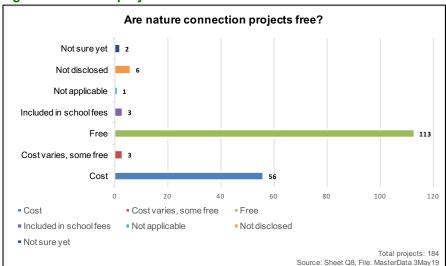
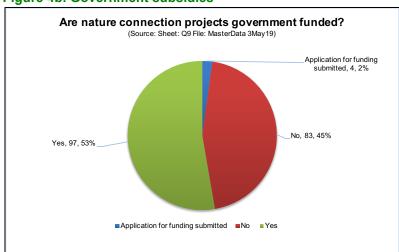


Figure 4a shows that 61% of projects reported being cost-free to participants and another 3% offered a proportion of free programs or projects were included in school fees. This is important because a cost to participate will limit accessibility to nature connection for some people.

Figure 4b. Government subsidies



Respondents also reported that 53% of projects were government-funded (Figure 4b). This helps to explain why a large percentage of projects can be offered for free to the participant. Government-funded projects will include activities run by local councils, National Park bodies and the environment educational centres. Government funding for this sort of activity is being driven by recognition of the benefits of nature connection in government policy. To illustrate, it is recognised in both the Victorian Biodiversity Plan 2037 and the City of Melbourne's 'Nature in the City' strategy (Victorian Department of Environment, Water & Planning 2018, City of Melbourne 2017).

Cost of Nature Connection projects to users Cost varies 18 Cost varies, some free Over \$500 Btwn \$300-500 Btwn \$100-300 Under \$100 Under \$50 Under \$30 Under \$20 Under \$10 10 Total projects with disclosed costs: 59 Source: Sheet Q8, File: MasterData 3May19

Figure 4c. Cost of nature connection projects to users

Figure 4c shows that of the 59 projects reporting financial costs, cost varied widely depending on the activity. The data showed that children's activities, which have a cost, are relatively inexpensive, usually under \$20 and many only \$5. In contrast adult activities were often more expensive because the activities where either more complex, went for a longer duration of sessions or both.

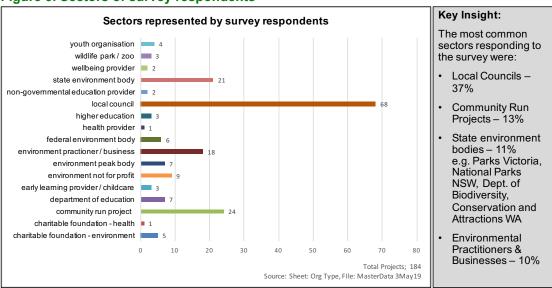


Figure 5. Sectors of survey respondents

Figure 5 shows that from the survey respondent sectors, we can understand who are running the nature connection projects. 50% of projects were run at a local level through local councils (37%) and communityrun groups (13%). Environment not-for-profits & Environment Practioners / Businesses are also likely to be working at a local level.

Both state and federal environment agencies have recorded nature connection projects, reinforcing the comment in the Cost section above that nature connection is being worked into government policy.

The early learning / childcare sector appears under-represented given the growth in bush kinders but with focussed effort on the sector it is likely more projects could be recorded, using networks such as the Kids In Nature Network.

## **Intentions of Nature Connection Projects**

This section analyses the stated aims of nature connection projects.

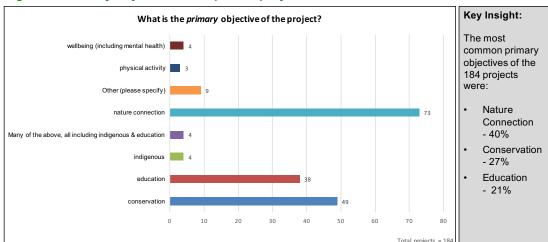


Figure 6. Primary objectives of reported projects

It is expected that nature connection would be the primary objective for the majority of projects as respondents voluntarilty participated, identifying their work as connecting people with nature. It is also not surprising to see conservation and education as primary objectives. This is because 'nature connection' as as an environmental tool is a relatively new term whereas nature education and conservation programs are well established. In additional, many facilitators of nature connection work, such a local councils, national park headquarters and education departments also have an education remit which may be their primary objective. Similarly many environmental associations and NGOs are likely to have conservation as their primary purpose.

Nine respondents reported that they had a different primary objective for their work. Some examples of these objectives are detailed in Table 3 below. Whilst all important, interesting to note that nature connection is being used to support rehabilitation in the health field.

Table 3. Examples of 'other' primary objectives
Citizen science
Community stewardship of ecosystems connected to the Reef
Earth, Mind, Body, Spirit, Wellness
EcoResilience, personal transformation and providing support to change makers
Tourist attraction, animal hospital and school group education
Capacity building of land managers and communities (especially indigenous & remote)
Rehabilitation
Sustainability education

Key insight: What is the secondary objective of the project? The most common wellbeing (including mental health) secondary objectives of the physical activity 184 projects were: Other (please specify) Nature no secondary purpose reported Connection - 35% nature connection Education indigenous - 20% Conservation - 20% conservation All the above except accommodation and tourism 20 Total projects

Figure 7. Secondary objectives of reported projects

Table 4 highlights the 'other' secondary objectives listed for the projects, demonstrating the variety of purposes nature connection projects are serving. Important to note are the objectives of: belonging, capacity building and resilience.

Table 4. Examples of 'other' secondary objectives
Awareness raising of values of the Gardens
Belonging
Capacity building around resilience
Community building
Creating a global movement of caring for the environment
Environmental Sustainability
Personal transformation
Poltical activism

Considering both the primary and secondary objectives, 75% of respondents ranked nature connection as one of their two key objectives, i.e. 40% as primary objective and 35% as the secondary objective). The 25% of projects that didn't list nature connection in their top two objectives have still identified their work as a nature connection project by voluntarily participating in the survey.

#### Correlations between nature connection, education and conservation projects

Table 5 highlights that the secondary objective of the 71 respondents that reported Nature Connection as their primary objective, were:

- Education 35%
- Conservation 32%
- Wellbeing 17%

#### The data also show that:

- Of the 48 respondents that reported *conservation as their primary objective*, nature connection was the most common secondary objective, with **56%** of respondents choosing this.
- Of the 38 respondents that reported *education as their primary objective*, nature connection was the most common secondary objective, with **68%** of respondents choosing this.

Table 5. Projects' primary purposes mapped against their secondary purpose										
Count of Primary Purpose	Secondary Purposes									
Row Labels	conservation	education	indigenous	nature connection	Other	Other (please specify)	physical activity	wellbeing (including mental health	(blank)	<b>Grand Total</b>
conservation	1	9	2	27		3	2	2	2	48
education	9	1		26		2				38
indigenous	2	1		1						4
nature connection	23	25	2		1	4	2	12	2	71
Other (please specify)	1	1		7		3	1	1	2	16
physical activity				2				1		3
wellbeing (including mental health)	1			2			1			4
Grand Total	37	37	4	65	1	12	6	16	6	184

These large percentages suggest a strong commonality between nature connection projects with both education and conservation programs. This suggests many projects with a primary focus on environmental education and nature conservation are also aiming to deliver nature connection outcomes. This implies that nature connection is happening beyond projects designed solely for nature connection, in programs that deliver additional benefits such as conservation and environmental education.

# Types of activities run by Nature Connection projects

The 184 nature connection projects are all unique in their purpose, design and outcomes. To do each of them justice, it is recommended to read the details of each project thoroughly. A comprehensive overview is provided in the supplementary document titled: Australian Nature Connection Projects (May2019). It includes a quick overview of each project in Appendix 3 and more detailed profiles in Appendix 4 (sorted by category) and Appendix 5 (sorted by location).

Examples of the range of nature connection efforts include:

- Youth Bush Skills workshops of the Eastern Metropolitan Regional Council in WA
- Connecting with Country programs of Mimal Land Management (NT) and the Nature Foundation (SA)
- A native plant nursery at Berry Primary School, NSW
- Little Explorers classes run by the McArthur Centre for Sustainable Living in NSW
- The Little Seeds Nature Playgroup run by the Royal Botanic Gardens Victoria
- Friends of Grassland volunteer conservation group in the ACT
- · A Discovery Ranger program in Tasmania
- · The Reef HQ Turtle Hospital in Queensland

#### Programs run by large conservation bodies

Several of the larger parks and wildlife conservation bodies are very active in running nature connection projects and therefore make a significant contribution in connecting large volumes of people to nature. Whilst they have recorded their work via the survey it is a consolidated view, which limits the details of individual programs. Table 6 below attempts to provide a sample of their programs. For a more thorough understanding of their programs, please consult the listed contact person or their websites. (**Note**: Projects from Zoos Victoria and the Royal Botanic Gardens Sydney have not been recorded however it is understood they also run nature connection programs.

#### Table 6. Work of specific organisations

#### **Organization Name**

#### **Nature Connection Projects**

#### Taronga Institute of Science and Learning

offering programs at both Taronga Zoo and Taronga Western Plains Zoo in Dubbo

Program audiences range across:

**Primary school**: school excursions, ZooSnooz overnight stays, school holiday care

**Secondary school:** excursions, work experience, Youth at the Zoo program, Burbangana

Table Tertiary students: vocational training, undergraduate and post graduate courses

Adults: volunteer program, Department of Education teacher days

#### Centennial Parklands Sydney

**Programs for children:** 10wk programs (e.g. bush school), oneoffs (e.g. the Great CP bat count, pizza party in the park), school holiday programs (e.g. kids vs. the wild) and ongoing (lan Potter Nature Play garden).

**Programs for Adults:** Urban & Nature Mindfulness Retreat and Nature Art Lessons (Centennial Parklands n.d.)

#### Royal Botanic Gardens Victoria

offering programs at both the Melbourne and Cranbourne Botanic Gardens

**Programs for children:** school learning program, RBGV early years learning program, Little Seeds Nature Playgroup

**Programs for adults:** Cherry Ballart Partnership Program and of variety of one-off activities, i.e. Group Walk to discover birds in the Australian Garden, Forest Therapy (Shinrin-yoku) and Punting on the Lake

(Royal Botanic Gardens Victoria n.d.)

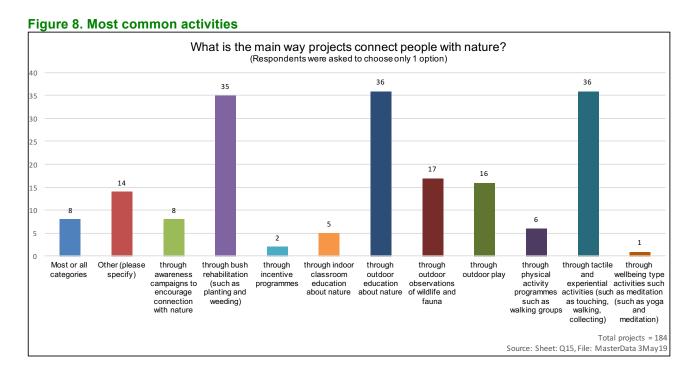


Figure 8 shows that the most common activities used by respondents to connect people with nature are:

- 20% through tactile and experiential activities (such as touching, walking, collecting)
- 20% through outdoor education about nature
- 19% through bush rehabilitation (such as planting and weeding)

Fourteen respondents reported that they used another main way to connect people with nature (Table 7).

#### Table 7. Examples of 'other' main ways specified for connecting with nature

Bush adventure therapy and wilderness quests, and nature contemplation

Citizen science

Connecting children with Country

Empowering people to create environmental/sustainability passion projects

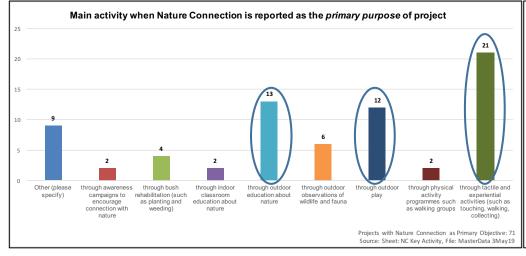
Encourages and supports people to plant indigenous plants in their private gardens to support wildlife Sharing Indigenous wisdom of earth connection, mindfulness, narrative meditation, a movement

practice and creating a lifestyle change of how people interact daily with their environment

Use theatre and role playing to engage the audiences

The findings around most common *main activities* used for nature connection projects / efforts align to the 'Primary objective' findings above (see Figure 6), in that a large percentage of respondents report both *nature education* and *bush rehabilitation* (i.e. conservation) are key activities for their nature connection projects. Tactile and experiential activities are understandable way of connecting with nature because the body's senses are engaged. However, it also makes sense that nature connection can occur through outdoor education and bush rehabilitation because both typically have tactile contact with nature, through activities such as planting, bush walking, flora observations and learning of bush skills.

Figure 9a. Main activities of projects with 'nature connection' stated as primary objective



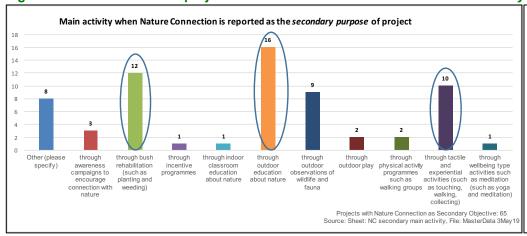
Of the respondents that reported nature connection as the *primary* purpose of their project, the most common *main* activities were:

Tactile and experiential activities (such as touching, walking, collecting) – 30%

Outdoor education about nature – 18%

Outdoor play – 17%

Figure 9b. Main activities of projects with 'nature connection' stated as secondary objective.



Of the respondents that reported nature connection as their <u>secondary</u> purpose, the most common main activities were:

Outdoor education about nature – 25%

Bush rehabilitation (such as planting and weeding) – 18%

Tactile and experiential activities (such as touching, walking, collecting) – 15%

Figures 9a & 9b show the most common key activities that respondents use for projects that have nature connection as a key objective (either primary or secondary) are:

- Tactile and experiential activities
- · Outdoor education about nature
- · Bush Rehabilitation
- Outdoor play

#### Main activities with 'nature connection' as primary or secondary objective

The voluntary nature of the nature connection survey means that all respondents identified themselves as running a project that enable nature connection and therefore insights can be drawn from all projects listed.

It is interesting however to also look specifically at the 71 projects that identified their primary objective as nature connection in order to understand if any specific activities are predominately used to achieve nature connection.

The below graph breaks down the 71 projects by category and main activity reported. The split of activities makes sense by age, e.g. for the preschool / primary aged children the activities the focus is mostly tactile & experiential activities, outdoor play and outdoor education about nature.

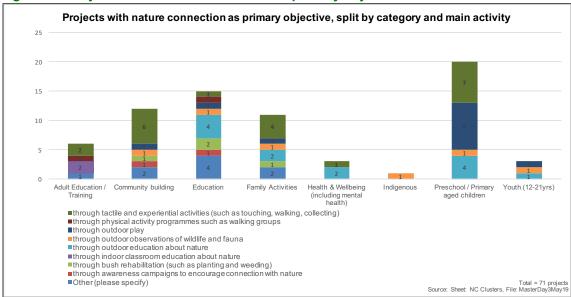


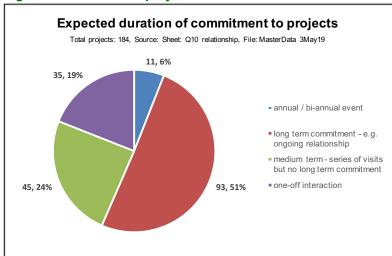
Figure 10. Projects with nature connection as primary objective

It is interesting to note that a wide range of key activities are used amongst the respondents that have a primary focus on achieving nature connection. The most dominant one is tactile & experiential activities however it is certainly not the only approach, again suggesting that nature connection is being achieved in many different ways.

# **Outcomes of Nature Connection Projects**

Do nature connection projects foster ongoing relationships with nature?

Figure 11. Duration of project commitment



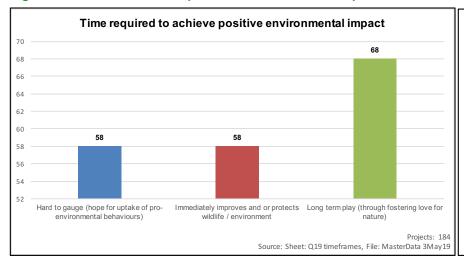
#### Summary:

- Over half of the projects (51%) ask for or require a long term commitment, for example bush kinder, bush rehab and walking groups.
- This provides an opportunity to develop an ongoing relationship with nature.
- 24% of projects require a medium term commitment, e.g. a series of visits but no long term commitment
- The remaining 25% of projects are either a one-off events or reoccurring annual / bi-annual events.

75% of the nature connection projects require participants to make a medium to long-term commitment. Multiple and, even better, ongoing interaction with nature, rather than a one off event should help to increase the chance of mindset and behavioral change to protect the environment. One off and annual events can certainly serve a purpose too, by:

- providing an initial experience of connecting with nature that will hopefully spur a desire for more
- or by creating an opportunity to build environmental awareness that may trigger immediate behavioural change.

Figure 12. Timeframes for a positive environmental impact



#### Summary:

Respondents reported that:

- 31.5% of the projects immediately improved or protected wildlife or the environment
- 37% of projects aimed to support the environment in the long term, by fostering a love for nature through their projects.
- 31.5% of projects reported it was hard to gauge the impact of their work but hoped that individuals will take up proenvironmental behaviours because of their experience.

Immediate improvements or protection to wildlife or the environment were reported by 31.5% (n=58) of the nature connection projects. The other projects create nature connection in the hope that this will translate into a love for nature and foster pro-environmental behaviours. This approach is supported by the recent research synthesis (Children & Nature Network 2018b) that reports "connectedness to nature as a strong predictor of positive conservation behaviours" (p.4).

Figure 13a shows that the *most common activities* used by *projects reporting immediate positive environmental benefits* are bush rehabilitation, tactile and experiential activities and outdoor education.

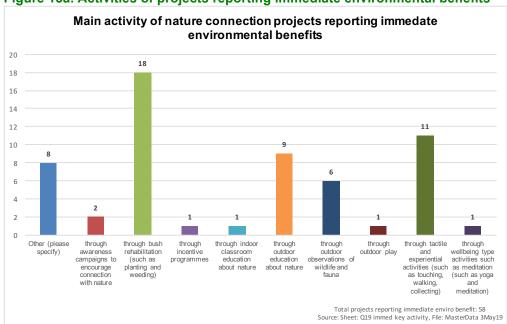
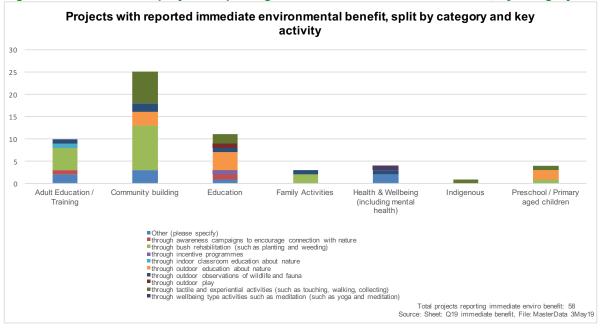


Figure 13a. Activities of projects reporting immediate environmental benefits





Bush rehabilitation projects can understandably have an immediate impact through the weeding and planting they do. A less obvious example is how the Blue Mountains City Council "Connecting Kids with Nature" program saw an immediate impact through increased in participation in Clean Up Australia Day and involvement in local schools' environment clubs after the program.

#### Reported positive outcomes from projects (environmental & other)

Table 8 provides a visual map of the types of positive outcomes reported by the nature connections projects. With a glance we can see the nature connection projects are delivering a range of benefits, encouragingly with a dominance towards:

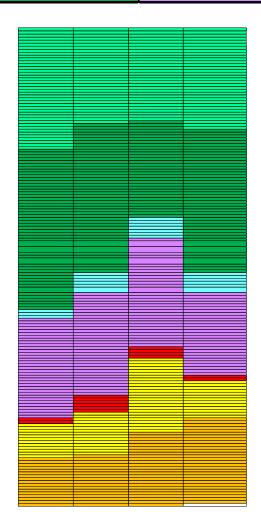
- nature connection
- immediate environmental benefits
- environmental education & awareness building.

A similar visual map in Appendix 2 contains the details of each beneficial outcome however the text has been removed here to avoid distraction in the detail. In Appendix 2, we find that the immediate environmental benefits (dark green) can be quantified whereas the other outcomes, such as nature connection (light green) and future environmental benefits (pale blue), from activities such as citizen science, are softer outcomes, without hard measurement. Outcome measurement of nature connection projects is discussed in Section 5. Opportunities for Further Research.

Table 9 below provides a physical count by category. In total there were 649 positive outcomes reported for the 184 projects, an average of 3.5 per project. To give a more accurate count, in a few cases where multiple outcomes were reported into the same field these were broken out into the necessary fields. It is encouraging to see that the largest category of beneficial outcomes was 'immediate environmental benefits' (28%), reassuring that nature connection projects do not only have a 'longer term' environmental benefit but many are also having an immediate impact. Many Nature Connection (22%) and Environmental Awareness / Education (21%) beneficial outcomes were also recorded. Not surprising but also reassuring. It is important to remember that with an average of 3.5 outcomes per project, projects could report beneficial outcomes in a variety of categories, again reminding us that nature connection projects can have multiple environmental outcomes – such as nature connection, conservation, wellbeing, and education.

Table 8. Visual map of 649 beneficial outcomes recorded by Nature Connection Projects

Legend	nature connection	future environmental benefit	indigenous focus
human benefit, inc. health & wellbeing	immediate environmental benefit	environmental awareness &/or education	community focus



		I
Table 9. Count by Category of Benficial Outcomes	Count per category	% of total
nature connection	142	22
immediate environmental benefit	182	28
future environmental benefit	22	3
environmental awareness &/or education	134	21
indigenous focus	12	2
community focus	66	10
human benefit, inc. health & wellbeing	91	14
Total	649	100

# 5. Opportunity for further research

The time restriction of this university short-term research project limited the amount of projects that could be captured in the data set. Given an opportunity for further research, it would be valuable to build a more comprehensive list of nature connection work in Australia.

#### Short-term research could focus in two areas:

- Region: There was a dominance of projects found in NSW and Victoria and therefore it would be
  worthwhile looking more deeply in ACT, Northern Territory, Queensland, South Australia, Western
  Australia, and Tasmania for further examples of nature connection efforts.
- Industry: There was a dominance of projects found in the environmental services sector and therefore it would be worthwhile looking more deeply within tourism and accommodation providers, the state education departments and the health sector for further examples of nature connection efforts.

#### Second phase of research

It would be valuable if this new database of Australian nature connection projects could be used to contribute to the body of evidence that is demonstrating that nature connection can translate to broader and enduring pro-environmental behaviours. To do this, a longitudinal study could be set up using a sample of the nature connection projects to measure the pre- and post- attitudes and behaviours of participants over time.

#### 6. Reflection

It is encouraging that environmental education is evolving to an approach that is more experiential than that mostly taught in indoor classrooms. The list of Australian nature connection projects includes plenty of examples of outdoor nature education, including some of the 23 environment education centers in NSW (Sustainable Schools 2019). Along with social media awareness campaigns, such as 'Bubbles not Balloons' and 'Take 3 for the Sea', nature connection seems to be the next phase in environmental education, using a more hands-on and sensory approach to evoke connection in addition to knowledge.

A recent comment in the May newsletter from Ceres Environment Park in Melbourne captures the essence of the problem that nature connection work is addressing:

"While we continue to see the Earth as "the environment", we will continue to act as if the living world is a resource for us to use. We might even think of it as a complex machine, composed of intricate systems that we need to preserve in order to preserve ourselves. But the kind of courage to act that is called for in these times, usually only springs from great love" Sieta Beckwith (2019).

Nature connection work is trying to change the relationship that humans have with the planet from a transactional one to a loving one.

In a relatively short period, a significant number of nature connection projects were recorded from across Australia. The size of this initial sample alone can give confidence that there is large community of people connecting people with nature across Australia. They exist in our communities, our school systems and all levels of government: federal, state and local. We can feel heartened by the amount and variety of work going on and importantly can look forward to beneficial outcomes of their work. The national and state

programs, and those run by the bigger organizations such as the Heart Foundation, Centennial Parklands and the Taronga Institute, have the potential to connect large numbers of people with nature. The local ones, run by councils, not for profits, community groups and individuals, are able to more easily identify and access those needing connection in their local areas.

It has been encouraging to see both state and federal governments running nature connection projects, through their environmental departments. This reflects the start of the incorporation of nature connection in government policy for the purposes of environment protection and human wellbeing. With only two projects reported for the health sector, it seems there may be further applications for nature connection work in this sector.

If nature connection becomes the primary approach for environmental education, policy will need to consider where funding and effort should be directed. Towards connecting kids or adults with nature? Adults can have a more immediate environmental impact but children will need to continue this work in the future. Maybe it is both. Importantly, projects that achieve both nature connection and conservation, such as bush rehabilitation programs, are valuable in that they are delivering the dual benefit of nature connection and conservation. Perhaps there could be a concentrated focus on delivering these for the youth and adult age groups?

Importantly, the variety of projects showcased in the list suggest there is ample variety for people to connect with nature in a way that appeals to them; whether it be through physical conservation, meditation on a beach, building a cubby in the forest or simply going for a bush walk.

Given the above and given more time, it would be worthwhile to identify more nature connection work going on in Australia, if only to connect them to the broader community of nature connection facilitators so they can support one another.

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# **Appendix 1. Survey**

All children (0 - 12 yrs)

# Australian Nature Connection Projects Describe your nature connection efforts \* 1. Name of your name connection project, group or initiative? (even if it's just an obvious descriptor of your activity or service) \* 2. Approximately how many participants in the project? O 1-10 50 to 100 10 to 20 O 100+ 20 to 50 Uncapped Other (please specify) \* 3. Category of nature connection project (please pick one): Adult Education / Training Health & Wellbeing (including mental health) Community building Indigenous Preschool / Primary aged children Economies Education Youth (12-21yrs) Family Activities Tourism 4. Does the project also fit into another category of project? Adult Education / Training Health & Wellbeing (including mental health) Community Building Indigenous Economies Preschool / Primary Aged Children Education Youth (12 - 21 yrs) Family Activities \* 5. Target age group? (Pick best fit) All ages Youth (13 - 20 yrs) Baby to Preschool (Under 5 yrs) Adult (21+ yrs) Primary Age (5 - 12 yrs) Specifically targets seniors (60+ yrs)

* 6. Where is the project?	
National Programme (more than 1 state/territory)	Tasmania
Australian Capital Territory (ACT)	Victoria
New South Wales	Western Australia
Northern Territory	O South Australia
Queensland	
47.114	
* 7. Urban or rural?	
Rural	
Semi-rural (fringe of large city or country town)	
Urban	
8. Cost per session in \$AUD?	
If no cost, mark as FREE	
* 9. Is the project government funded?	
Yes	
○ No	
Application for funding submitted	
* 10. Frequency of interaction with nature? Please	choose best fit.
one-off interaction	
medium term - series of visits but no long term commit	
long term commitment - e.g. ongoing relationship throu	agn playgroups, bush rehab or walking groups
annual / bi-annual event	
	I
Australian Nature Connection Projects	
Project Dates and Frequency	
11. Please list date/s of your events here:	
11. Please list date/s of your events field.	
12. OPTIONAL: If the project has multiple session	ons, please state the normal number of sessions
committed to?	
If the project is ongoing, please mark as ONGO	ING.

# Australian Nature Connection Projects Project objectives and description \* 13. What is the primary objective of your project? conservation physical activity wellbeing (including mental health) education indigenous accommodation nature connection tourism Other (please specify) 14. If your project has a secondary objective, please list it here. conservation physical activity education wellbeing (including mental health) indigenous accommodation nature connection tourism Other (please specify) \* 15. What is the main way your project connects people with nature? (Choose 1) through indoor classroom education about nature through outdoor education about nature through tactile and experiential activities (such as touching, walking, collecting) through indoor classroom play through outdoor play through bush rehabilitation (such as planting and weeding) through wellbeing type activities such as meditation (such as yoga and meditation) through outdoor observations of wildlife and fauna through awareness campaigns to encourage connection with nature through incentive programmes through physical activity programmes such as walking groups Other (please specify)

16. W	nat are the other ways your project connects people with nature? (Select all relevant options)
thr	ough indoor classroom education about nature
thr	ough outdoor education about nature
thr	ough tactile and experiential activities (such as touching, walking, collecting)
thr	ough indoor classroom play
thr	ough outdoor play
thr	ough bush rehabilitation (such as planting and weeding)
thr	ough wellbeing type activities such as meditation (such as yoga and meditation)
thr	ough outdoor observations of wildlife and fauna
thr	ough awareness campaigns to encourage connection with nature
thr	ough incentive programmes
thr	ough physical activity programmes such as walking groups
Ot	her (please specify)
Г	
17. Ple bush p	ease list the key tasks or activities done as part of the project? E.g. yoga, gardening, bush rehab, play.
1.	
2.	
3.	
4.	

Australian Nature Connection Projects					
roject outcomes					
* 18. What are the key positive outcomes from project?					
Please list and be as s	Please list and be as specific as possible.				
Examples might be:					
Rehabilitation of 50sq.	. meters of river bank,				
Planting of 50 native to					
Improved individual he	ealth				
Community building					
Physical fitness					
1.					
2.					
3.					
<u>.                                    </u>					
4.					
<ul> <li>* 19. Nature Connection projects often aim to create a love for nature which in turn fosters pro- environmental behaviours, such as conservation and sustainable living.</li> <li>Within what time frames do you expect your project to have a positive environmental impact? (Please choose best fit)</li> </ul>					
_	and or protects wildlife / environment				
0	gh fostering love for nature)				
Hard to gauge (hope that individuals will take up pro-environmental behaviours because of their experience)					
20. If you listed an positive environmental impact as a project outcome in Q18 and or Q19, please provide any additional data / research here. Alternatively provide a URL link to such evidence.					
Australian Nature C					
ntact details for the	nature connection project				
21. Optional: Would you like to include contact details for the project? (We will send a copy of final report to this email address.)					
Contact Name:					
Email address:					
Phone number:					
22. Would you like to include a link to a website for this project? (web address or URL link)					