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NATURE – NURTURING HEALTH AND  
ENHANCING SUSTAINABILITY THROUGH  
ADVENTURE THERAPY PRACTICES

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# NATURE – NURTURING HEALTH AND ENHANCING SUSTAINABILITY THROUGH ADVENTURE THERAPY PRACTICES

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## INTRODUCTION

Adventure therapy is a flourishing and diverse field of health and wellbeing, generally including elements of experiential learning, outdoor pursuits or activity, and intentional use of nature. The intent of most adventure therapy programmes is to effect a change in terms of personal and social development, and mental health. A mixed methods study into adventure therapy practice in Aotearoa New Zealand was conducted to better understand the beliefs and practices of practitioners.

Thorne's (2000) interpretive description framed analysis of data which was gathered through focus groups and a survey. The research is situated in the field of adventure therapy and analysis incorporated knowledge from diverse but related disciplines to construct findings that would be of pragmatic use to adventure therapy practitioners in Aotearoa New Zealand.

Findings were not limited to but include ways that practitioners witness therapeutic impact from nature, these are discussed in this work. Nature related themes are *nature enables health*, *nature enhances therapy* and *connection with nature is important*. These are discussed with a view to establishing benefits of nature in terms of the concept of sustainability and linked with Ives et al. (2018) types of connection with nature: material, experiential, cognitive, emotional, and philosophical. It is proposed that strengthening these connections enhances sustainability on a personal level, encourages environmentally responsible behaviours and falls within legitimate adventure therapy practice in Aotearoa New Zealand.

## Literature review

Whilst the Adventure Therapy (AT) field is diverse and lacks an internationally consistent definition, there are consistencies regarding what is included in AT practices. One such consistency is that the intervention is situated in nature, endorses connection with nature, and uses the health-giving benefits of nature (Harper et al., 2019).

Research into the health benefits of spending time in nature is growing both in the number of studies, and support for the hypothesis that nature is good for us (Harper et al., 2019; Seymour, 2016). Situating AT activities in nature provide opportunity for exercise and whole-body movement, and for involvement of all senses with stimuli that is both engaging and restorative. Resultant benefits are physiological, psychological, and social.

Seminal theories from Western research on the interaction between nature and people include biophilia theory developed by Wilson (2007) and the Kaplans Attention Restoration Theory (Kaplan, 1995). Research into nature's influence on humans' health has been prolific in recent years (Ives et al., 2017; Zylstra et al., 2014) and is informing health, education and environmental disciplines. Völker and Kistemann (2011) review of literature

about the health benefits of blue spaces (ocean, rivers, lakes, water features) found that overall benefits were clear however specific emotional and therapeutic benefits of blue spaces requires more research. A subsequent review by Gascon et al. (2017) found evidence of blue space benefits to mental health and wellbeing, and physical health through the promotion of physical activity often associated with water. These authors suggest evidence is strong enough to promote inclusion of blue spaces in planning urban environments, however, acknowledge most blue space research is recent and requires methodological improvements and more focus on standardise outcomes measurements.

The systematic review conducted by Kondo et al. (2018) explores the place of green space (forest, gardens, grassland, mountains) in health and wellbeing. They found a clear correlation between green space and enhanced attention, mood, and physical activity. Additionally, there was evidence of reduced heart rate, reduced mortality, and violence. These authors advocate for more studies with rigorous design regarding therapeutic use of green space and state the findings may assist in urban planning for protection and inclusion of green spaces in urban environments. Hansen et al. (2017) extensive review of research into the Japanese practice of Shinrin-Yoko (forest bathing) provides compelling evidence of the physiological relationship between people and plants and the health benefits of this. These authors conclude that exposure to nature is implicated in reduction of stress from modern day lifestyles and technology.

Despite AT having its roots in nature (Newes & Bandoroff, 2004) research into the intentional use of nature in the field has been slow to emerge. Beringer and Martin (2003) identified that AT outcomes were overall attributed to program design and facilitation, and that the field would benefit from better understanding the place nature has to play in therapeutic effect. They called for a shift from anthropocentric (where humans are regarded as central to existence) to an eco-centric or nature centred values perspective in AT practice. Beringer (2004) suggests including ecotherapy and nature-based therapy principles in AT. The need for increased acknowledgement of the place of nature in AT is reiterated by Taylor, Segal, and Harper (2010) who propose use of integral systems theory as a framework to understand, justify and apply nature in AT practices. Richards et al. (2011) succinctly draw together theoretical frameworks used in diverse AT practices, and include nature-based practices, stating that “these approaches reflect a greater emphasis on a connection with the natural world as a key therapeutic ingredient, along with a response to environmental crises and sustainability agendas.” (p.84).

Adventure Therapy in Aotearoa New Zealand is growing in profile, and practitioners come from diverse professional backgrounds across health, education, and youth work fields (Jeffery, 2017). To date there has been limited research into the use of nature in adventure therapy practice in New Zealand (NZ). Jeffery (2017) encouraged the use of nature by occupational therapists using AT through various avenues including horticulture and animal assisted therapy and endorsed working alongside Māori to include nature-based interventions for Māori. Horn's (2021) study into the use of nature by talk-based therapists found that therapeutic alliance was enhanced because of the setting, therapists facilitated connection with nature as healer, and there was a good fit with Māori.

This work reports on one theme (use of nature) that emerged from a broader study into what AT practitioners are doing in NZ with a purpose of better understanding their beliefs and practices (Jeffery & Hensey, 2022).

## METHODOLOGY

A mixed methods study was conducted to ascertain the current beliefs and practices of AT practitioners in NZ. The breadth of the research question “What are AT practitioners in NZ doing, and how and why are they doing it?” reflected current flourishing of the field in NZ and the limited amount of research already conducted. Interpretive description methodology was selected (Thorne, 2016) which uses a constructivist approach to generate knowledge pertinent to the health field of interest. This approach seeks findings that are relevant to the field of interest, attends to practice based biases and commitments, and holds the context in mind. The intent

is that findings are constructed through thoughtful linking to others' work in the field (Oliver, 2012; Mitchell & Cody, 2002; Thorne, 2000).

Ethics approval was granted by the Otago Institute of Sport, Exercise and Health Ethics Committee, Otago Polytechnic, Dunedin in 2019. Participants were recruited through Adventure Therapy Aotearoa via email communication, snowballing was used to further recruit.

Data was gathered via four focus groups with a total of 12 participants. For one of the groups only one participant was able to attend, to capture this person's responses an interview was conducted. Identifying data was anonymized at the point of transcribing and pseudonyms allocated. Additionally, an anonymous survey was distributed via the same networks and resulted in 29 valid responses. This added information pertaining to the systems practitioners are working in and what is important to them in AT practice.

Qualitative data was thematically analysed, with interpretations explored by the primary researcher, a second researcher and a research assistant. Survey data was analysed using SPSS (Statistical Package for the Social Sciences, version 27) software and descriptive findings were used to augment, expand on, and compare with the qualitative findings.

Following this analysis and in line with interpretative description's approach to valuing participants shared and diverse experiences, themes and anomalies related to nature were returned to and further explored. Jeffery and Hensey (2022) reported on the overall findings and implications for the field. This work reports on and explores findings that emerged about the use of nature in adventure therapy which are discussed in relation to the concept of sustainability.

## Findings

The following findings analysed from the data are presented in three themes.

- **Nature enables health**

Participants identified health and wellbeing benefits to the individual from spending time in nature. These include experiencing positive emotions such as a sense of calm, freedom, an overall sense of wellbeing, enhanced cognitive capacity and increased sustainability of benefits of the therapy following the episode of care. Reasons for this were attributed to individuals' disengaging from technology and being away from the urban environment, as well as the high support model present in many AT programs. Some noted that clients were able to gain a more helpful perspective on life issues, and to make better use of reflective and learning opportunities than when engaged in therapy in a clinic setting as exemplified by the following participant:

*I think it's the removal of oneself from the four walls around us, from what we know, from technology. From that into this ... feeling of freedom? Carole.*

- **Nature enhances therapy**

Additionally, participants identified that therapeutic strategies were easier to facilitate and had better outcomes when conducted in nature. Much of this related to capacity for emotional regulation, which in turn enhances capacity to sustain cognitive function. It was identified that strategies such as mindfulness and grounding (being present in one's body and connected with the earth) come easier when in nature with multiple senses being engaged in a neutral and natural environment. Others spoke to a deeper response to immersion in nature which enabled clients to reach therapy potential, exemplified by the following participant:

*There's something about doing stuff outside that just makes it better, makes it more ... There's kind of a spiritual and element to being around water or around a natural setting that enables stuff to happen. Bronnie*

Many adventure therapy clients have a history of exposure to adverse childhood events and consequently suffer complex trauma symptoms with lifelong effects on development and overall health and wellbeing. An emphasis on safety (physical and emotional) is therefore essential in AT practice. Participants reported this could sometimes be facilitated easier in nature. Whilst many adventure therapy practices intentionally use novel environments and activities, participants in this research also identified a sense of safety and comfort with nature that grows with increased familiarity. Some helped clients identify a place they could go to when necessary to cope with stressors and regulate emotions in the hopes they would sustain this practice once therapy had finished, others intentionally selected the same place for each session to initiate familiarity.

- **Connecting with nature is important**

Connection with nature was considered important for spirituality, for the sense of place and belonging it can provide, for safety and consistency of the relationship with nature once established, and for the potential for reciprocity – receiving from and giving back to nature exemplified by the following participant:

*I think it's also something greater than yourself, to go out there and be wowed by some beautiful place. Or yeah, just feel that sense of something bigger than oneself. And also, that ... I think that sense of wonder. Carole.*

Having a sense of awe and wonder, and of being a part of something greater, when present in and mindful of natural environments not previously appreciated is often encountered by clients in adventure therapy:

*... and I guess culturally whether there's a cultural element to feeling more grounded to particular places or land, whatever it might be. I think everybody kind of feels that sense of some kind of connection with the natural, yeah, world around them. When you're actually given the chance to. Erica*

Connection to place and the associated sense of belonging featured strongly in participant statements. This was in part attributed to the number of clients in services that use adventure therapy who are experiencing disconnection from family/whanau and from society, who may be geographically transient and be disconnected from nature. Some participants identified differences between a Western view of using nature and a Māori view of being a part of nature but did not differentiate between cultures when talking about the value of facilitating connection with nature. Whilst not stated overtly, it seemed participants valued and worked with the viewpoint of indigenous ways of being and appreciated the potential contribution to the field from Māori perspectives, as illustrated by Henk's comment:

*There's some fantastic stuff going on that isn't yet covered by us... Anyway, I think they [Māori] have a huge amount to offer us...*

Strategies identified to facilitate connection were numerous and included talking about the geographical and social history of the place, helping people situate their whanau/family history in place, using local green and blue spaces regularly to facilitate familiarity, and selecting activities that are accessible for clients to integrate into everyday life and sustain over time.

Relationship and connection are enhanced by knowing, respecting, and appreciating the other. In terms of connection with nature, some participants used activities that enable appreciating changes in nature over time such as gardening, and photography through the seasons. Others included education on how things work in nature, such as how clouds are formed, and drawing attention to specific elements such as observing the night sky – these activities were used as a way of triggering respect for nature and hope that willingness to care for nature would ensue. Knowledge and practices in both Kaitiakitanga (environmental stewardship) and environmentalism were considered important outcomes that some practitioners strived for.

## DISCUSSION

Respondents in this study identified connection with nature in terms of enhancing wellbeing, enabling better engagement with therapy, and a perception of being part of something bigger. In line with Thorn's (2016) analysis strategy of linking findings to the work of others in the field, these findings are discussed in relation to research into connecting with nature from multiple disciplines including education, conservation, environmental psychology, ecopsychology and health. Additionally, Ives et al. (2018) framework for strengthening connectedness is used. A link is made to individuals' capacity to sustain meeting the demands of everyday life, and to individuals' engagement in environmentally responsible behaviours.

### *The human-nature connection*

Participants in this study identified disconnection from nature as a cause of some of the struggles for many, as well as connecting with nature as therapeutic. Zylstra et al. (2014) defined this concept as ... "a stable state of consciousness comprising symbiotic cognitive, affective, and experiential dimensions that reflect a realization of the interrelatedness between oneself and the rest of nature" (p. 119). This definition speaks to the importance of the connection being beyond intellectual knowing and incorporates concepts of nature being around and within ourselves, something we embody (Stevens, 2010). Biophilia theory, belief that humans are genetically predisposed to be in nature (Wilson, 1984) explains the innate drive people have to engage with nature and the physiological responses to nature which are directly linked to safety, survival, and identity. Changes over recent centuries through the agricultural, industrial, and technological revolutions has created distance between our "selves" and the natural world (Ives et al., 2018; Beery et al., 2015). This is evidenced by shifts in attitudes and beliefs about nature, and by the harm being done to our external (nature) environment and our internal (self) environment. A call for reconnection with nature is driven by our increasing tussle with the demands that we now place on our natural environment (in the form of pollution and exploitation of resources) and the subsequent impacts on our health and wellbeing as individuals (social, physical, and emotional health) and as a species (due to environmental/climate crisis, food inequity etc) (Gabielsen & Harper 2018; Beery et al., 2015; Zylstra et al., 2014).

In their systematic synthesis of research on the human-nature connection, Ives et al. (2017) identified three groups of research – human-nature connection as *mind*, as *experience* and as *attachment to place*. This review and Ives et al.'s subsequent (2018) work helpfully frames connecting with nature in five dimensions:

- (1) material connections such as resource extraction and use;
- (2) experiential connections such as recreational activities in green environments;
- (3) cognitive connections such as knowledge, beliefs and attitudes;
- (4) emotional attachments and affective responses;
- and (5) philosophical perspectives on humanity's relationship to the natural world.

(Ives, 2018; p.1389)

Ives (2018) suggests that pragmatic efforts to strengthen connections in these domains has potential to facilitate change for sustainability at an individual and societal level.

Findings from this study are compatible with this framework. Participants referred to material connections with reference to potential for enhanced appreciation and practice of *kaitiakitanga* (management of the natural environment based on Māori worldviews) (Walker et al., 2019). They used experiential connections in their work, emphasised emotional attachment in terms of therapeutic benefit and openness to therapy, spoke of enhancing cognitive connections through information sharing and were open to exploring philosophical perspectives through appreciation of and work within both the Māori and non-Māori world views.

### ***The health-nature connection***

Early exploration of the health benefits of nature by Kaplan (1995) resulted in development of their Attention Restoration Theory. This proposes that spending time in nature ameliorates much of the fatiguing demands of urban living. Modern life often requires unsustainable time with and levels of intensely directed attention on a specific task or experience at the expense of awareness of other sensations from or features of the immediate environment. Kaplan (1995) theorises that nature environments require undirected attention whereby the full experience of being present in the environment is enabled and ultimately capacity for directed attention, when it is next required, is restored.

Health benefits of connection with nature are diverse, well represented in literature, and can often be linked to Kaplan's Attention Restoration Theory. Masterton et al. (2020) comprehensive realist review of literature from diverse disciplines ascertained underlying mechanisms and processes whereby green space can improve mental health. Initial theories regarding the health benefits of nature fell into three broad themes – *nature* (benefits from getting away from everyday life and time to reflect), *individual self* (benefits from physical activity and to self-efficacy and having a purpose) and *social self* (through relationships and shared experiences). These authors propose a model to depict contexts, mechanisms, and outcomes for each of the three themes, thereby illustrating the importance of the program and its facilitation alongside the use of nature. These findings are in line with Britton et al. (2020) who reviewed literature on the therapeutic benefits of blue space and found that the positive mental health outcomes were attributed to activities conducted in blue space along with the qualities of the blue space.

Indigenous perspectives link the health of the natural environment directly to the health of people – sustaining life is reliant on a reciprocal relationship between people and the rest of nature. Kaitiakitanga, a complex Māori philosophy and practice, incorporates environmental stewardship with place based connection. Walker et al. (2019) suggest that capacity for kaitiakitanga (and in turn the health of the environment and the people) is compromised by urbanisation and modern living. They propose promoting and supporting indigenous wisdom, including kaitiakitanga knowledge and practices, to manage ecosystems and influence urban planning to ameliorate damage done to nature (including people) by intense urbanisation.

### ***The adventure therapy-nature connection***

Emphasis on the activity as well as the natural environment evident in our study is in line with usual AT practice. Outdoor activities are used with an emphasis on experiential learning theory to underpin planning and facilitation (Harper et al., 2019). Additionally, whilst some practitioners work on a one-to-one basis, groupwork is more commonly included. Therapeutic benefit has been attributed to the natural environment, the activities that clients engage in, skilled facilitation, and socialisation that occurs within the group (Gabrielsen & Harper, 2018; Jeffery, 2017; Taylor et al., 2010; Mossman, 2005). Participants in this study integrated their use of nature into facilitated activity and emphasised the importance of these other elements as much as connection with nature.

For many living in urban environments, experiences in nature are often through recreation activities such as outdoor pursuits, accessing city green spaces, or through gardening, and relates to Ives et al.'s (2018) domain: *experiential connections in nature*. Strengthening this can be facilitated through ensuring the experience is positive and safe, and it is processed so that learning is cemented (Luckner & Nadler, 1995). Although AT often uses novel activities and environments, this domain would be strengthened for individuals through repeated use of specific environments to enhance comfort through familiarity (Horn, 2021; Harper et al., 2019). Additionally, use of experiences with naturally occurring groups (e.g., community gardens, outdoor clubs) enhances potential for the human-to-human connection this client group often needs. Habitual use of such activities and environments would likely enhance enduring and sustainable benefits from them.

The way AT in NZ is facilitated differs depending on the reason and mechanism of referral, the intent of the program and the qualifications of the practitioners. Participants in this study came from diverse settings, which likely explains different emphasis across Ives et al.'s domains. Facilitation by a therapist with the intent of helping clients process trauma is more clearly linked to *emotional attachment and affective responses* domain, these participants believed their work was made easier and was more effective when situated in nature. Facilitation by teachers, however, was more often aligned with *cognitive connections*, integrating connection with nature into education about the environment assisted students' capacity to learn (because of greater capacity for cognitive function) as well as their level of knowledge. These findings are in line with the Kaplan (1995) attention restoration theory, supported by Porges (2015) polyvagal theory and explained in emerging trauma informed best practice for AT (Carpenter & Pryor, 2020; Trundle & Hutchinson, 2020)

### ***The culture-nature connection***

Accepting that people are a part of nature and at the same time calling for connection with nature creates dissonance and in part illustrates the disconnect between Westernised and Indigenous views of connection with nature. To consider nature as a backdrop to activities, a resource to use or own, or something to endure or enjoy perpetuates an understanding that "it" is separate from "us" and are examples of Westernised views (Beery et al., 2015; Zylstra et al., 2014). This contrasts with a view of indigenous cultures whereby people are situated in and have a symbiotic relationship with nature (McIntosh, Marques, & Mwipiko, 2021; Moewaka Barnes & McCreanor, 2019; Moewaka Barnes, Eich, & Yessilth, 2018; Boyes, 2010). McIntosh et al. (2021) explain Māori connection with nature and its relationship to health through four specific nature environments (land, forests, waterways, and wetlands). Each has a part to play in providing health benefits (to all of nature including people) through complex relationships with history and tradition, spirituality, physical properties, nurturing and cleansing properties and a natural order of things that is ultimately a self-sustaining ecosystem of which people are a part. Whilst well beyond the scope of this discussion, acknowledging the depth of Māori and the centrality of connection with nature to Māori culture is important. These disparate views on connection with nature (Māori and Western) illustrate the relevance of Ives et al.'s dimension of *philosophical perspectives on humans' relationship with nature*. Participants in this study emphasised connection with nature for Māori in terms of cultural identity and connection with place, acknowledging that Māori have much to offer the field of AT.

Research on the connection between humans and nature has been biased towards western cultures. The top three of the countries represented in Ives et al.'s extensive 2017 literature review are colonised countries with indigenous and non-indigenous people co-habiting the lands (USA, Australia and Canada) however the research maintains a Western orientation. The researchers acknowledge this limitation and recommend research from other countries be conducted to extend the cultural framing beyond western. McIntosh's (2021) statement that "Western cultures could learn much from the deep ideological connection between landscape and health by adopting the principles and knowledge of Indigenous peoples" supports this need. Similar messages are emerging in literature from other colonised nations. As more is known about the disruption caused by distancing people from nature, the advantage indigenous culture hold in this space is appreciated. Perhaps one way to facilitate connection with nature within AT in NZ is to continue to build relationships between indigenous and non-indigenous partners and for each to influence further development of the field.

### ***Reciprocal human-nature connection***

One of the benefits of connection with nature identified in this study was the potential for reciprocity – receiving from and giving back to nature. This considers the *material* domain in Ives framework by including that people give to and take from the environment materially (e.g., sustainable gardening for food), and was alluded to by some participants in this study. The notion of reciprocity between people and nature requires that people are in a "relationship with" or "connected to" nature and assumes that their actions will consequently be environmentally responsible. Leopold's famous Land Ethic includes the belief that "...We abuse land because



we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect” (cited in Beery, 2015, pp. 203–204). Diver et al. (2019) consider a reciprocal relationship between people and the land to be “based on our ethical obligations to care for, restore, and protect the land and resources that, in turn, support our existence” (p.404). These authors advocate that place-based relationships can form over time through experiences in the place, and nurture attachment with place. Connection with nature is therefore argued to be a valuable precursor to motivation for increased engagement in environmentalism (preservation, restoration, or improvement of the natural environment) (Merriam-Webster, n.d.) and conservation (planned management of natural resources to prevent exploitation, destruction, or neglect) (Merriam-Webster, n.d.). As also highlighted in this study, connection with nature, can help individuals and communities develop a deep sense of connection and belonging to place and community. Focus on this element strengthens Ives et al.’s domains of *emotional attachments and affective responses*, and ultimately *philosophical perspectives on humanity’s relationship to the natural world*.

### Application of Connection with nature to Adventure Therapy

Suggestions for application of Ives et al.’s ways of connection to nature are presented in Table 1 and are intended as a trigger for further thinking about how AT practitioners in NZ can contextualise this material to their setting and situation.

Table 1. Application to Ives et al. (2018) Ways of Connecting with Nature.

Domain	Potential within Adventure Therapy practice.
Material connections e.g., resource extraction and use	<ul style="list-style-type: none"> <li>Role modelling environmentally responsible behaviours</li> <li>Incorporating environmental values in full values contract</li> <li>Include connection with horticultural programs and practices</li> <li>Nurture reciprocity in relationship with nature</li> <li>Raise awareness of/link with local conservation and environmental activities</li> <li>Raise awareness of local historical and current resource use</li> </ul>
Experiential connections e.g., recreational activities in green environments	<ul style="list-style-type: none"> <li>Maintain experiential and activity base to programs</li> <li>Situate programs in outdoor green/blue spaces</li> <li>Ensure activities are appropriate for the culture of the group and the place</li> <li>Facilitate awareness of nature as integral to the experience, not just the backdrop, connection to whenua</li> <li>Aim to normalise activity in nature – introduce local and accessible nature resources, incorporate local outdoor clubs</li> <li>Advocate and facilitate equitable access to nature</li> </ul>
Cognitive connections such as knowledge, beliefs and attitudes	<ul style="list-style-type: none"> <li>Integrate place-based education e.g., geography, social history (Māori and non-Māori perspectives), environmental and geographical history, flora, and fauna</li> <li>Strengthen knowledge of whakapapa</li> <li>Explore diversity in beliefs about nature</li> <li>Role model positive attitude towards use of and protection of nature resources</li> <li>Facilitate learning of local nature resources/places</li> <li>Promote independence in intentional use of nature.</li> </ul>

Emotional attachments and affective responses	Acknowledge and relate to turangawaewae and topophilia Return to the same place, promote familiarity and comfort Acknowledge and develop capacity to process and manage emotions stimulated by nature e.g., awe, wonder, calm, anxiety, discomfort. Stimulate positive emotions through the nature and social environment of the group Use nature as healer/co-regulator to enhance therapy outcomes e.g., with mindfulness and grounding Support emotional connection to place, whakapapa Promote use of nature every day for emotional regulation and sense of wellbeing
Philosophical perspectives on humanity's relationship to the natural world	Appreciate te ao Māori (world view) and mātauranga Māori (traditional knowledge) Understand and maintain cultural safety e.g., follow tikanga Explore Māori and non-Māori perspectives – promote/enhance awareness and understanding of beliefs Explore and celebrate diversity in perspectives

**Key points to consider:**

- How nature is understood and related to is culturally bound. Māori nature-based philosophies and practices have much to offer non-Māori or Westernised communities.
- Connection with nature enhances health, enables therapy, and facilitates capacity to sustain the demands of the modern world.
- Connection with nature creates potential for reciprocal relationship with and consequent care about and for the natural environment.
- Intentional strengthening of Ives et al.'s five domains of connection with nature (material, experiential, cognitive, emotional, philosophical) is within the legitimate scope of AT practice in NZ

**CONCLUSION**

Ives et al. (2018) state that “To meaningfully progress a “reconnection agenda”, tangible actions must be directed towards specific changes, whether in health, education, or conservation.” Adventure therapy practice in NZ is across diverse settings that include health and education sectors. There is potential for strengthening each of the domains outlined by Ives et al through thoughtful and intentional use of nature in AT practices.


Such intention would enhance sustainability in individuals and groups to meet the demands of modern life, sustainability in communities to form and maintain reciprocal caring relationships with nature, and ultimately sustainable use of resources. Additionally, the experiential and place based nature of AT in NZ is well situated to meet Zylstra et al. (2014) challenge:

...we can no longer rest with the hope that CWN [connection with nature] may only be realized through intellect. At a minimum, experiential education for CWN [connection with nature] should encompass sensory awareness and emotional bonding through nature- and place-based immersion—indeed this might be the only way in which perceptions can be transformed. (Zylstra 2014 p.137)

Thoughtfully planned and intentionally facilitated use of nature in AT practice can be a pragmatic response towards ameliorating some of the direct effects on individuals from modern living and on communities from the current environmental crises.

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