


## RESEARCH ARTICLE

# Rethinking the good life amid the ecological crisis: The interplay between eco-anxiety, nature connection and well-being

Miia Grénman<sup>1</sup>  | Jussi Nyrhinen<sup>2</sup> | Panu Pihkala<sup>3</sup> | Antti Honkanen<sup>4</sup> |  
Juulia Räikkönen<sup>4</sup>

<sup>1</sup>Jyväskylä University School of Business and Economics, University of Jyväskylä, Jyväskylä, Finland

<sup>2</sup>LUT School of Engineering Sciences, Lappeenranta-Lahti University of Technology, Lappeenranta, Finland

<sup>3</sup>Faculty of Theology, University of Helsinki, Helsinki, Finland

<sup>4</sup>Biodiversity Unit, University of Turku, Turku, Finland

## Correspondence

Miia Grénman  
Email: [miia.grenman@utu.fi](mailto:miia.grenman@utu.fi)

## Funding information

The Strategic Research Council, Grant/Award Number: 345662 and 345885

**Handling Editor:** Thomas Beery

## Abstract

1. The ecological crisis, characterized by various interconnected environmental problems, has emerged as a significant source of anxiety, commonly known as 'eco-anxiety'. This psychological distress stemming from ecological threats carries profound implications for human and nonhuman well-being. Research suggests that while a strong connection with nature can increase eco-anxiety, cultivating and sustaining this connection can also serve as a coping mechanism to mitigate its negative effects.
2. This study investigates the interplay between eco-anxiety, nature connection and well-being, providing a framework for understanding how they interact amid the ecological crisis. The data were collected through an online panel survey in 2022, targeting the Finnish population aged 18 to 65 ( $n=1013$ ). Covariance-based structural equation modelling (CB-SEM) was employed to test three hypotheses regarding the relationship between these constructs.
3. The analysis confirmed all hypotheses. First, eco-anxiety was negatively related to well-being, indicating that ecological threats contribute to psychological distress. Second, a positive association was found between eco-anxiety and nature connection, suggesting that individuals experiencing eco-anxiety possess a deeper sense of interconnectedness with the natural world. Third, a positive relationship was established between nature connection and well-being, highlighting that a robust connection with nature enhances overall well-being.
4. Additionally, a statistically significant positive indirect relationship was identified between eco-anxiety and well-being, indicating that a deeper connection with nature can mitigate the negative effects of eco-anxiety.
5. *Synthesis and applications.* This study furthers the understanding of the complex interconnections between eco-anxiety, nature connection and well-being. The study also advances the understanding of eco-anxiety not only as a psychological burden but also as a potential catalyst for fostering environmental awareness

This is an open access article under the terms of the [Creative Commons Attribution](https://creativecommons.org/licenses/by/4.0/) License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

© 2025 The Author(s). *People and Nature* published by John Wiley & Sons Ltd on behalf of British Ecological Society.

and engaging individuals in environmental stewardship and agency, sometimes called 'practical eco-anxiety'. This holds significant implications for environmental education, psychology and policy development: with constructive coping skills, people can practice environmental responsibility and cherish a strong nature connection.

#### KEYWORDS

coping, eco-anxiety, ecological crisis, environmental psychology, flourishing, good life, nature connection, well-being

## 1 | INTRODUCTION

The ecological crisis poses significant challenges for life on Earth (Díaz et al., 2019; Larson et al., 2022; Mikusiński et al., 2023). This calls for a re-evaluation of what constitutes a good life, as human activities, especially the overexploitation of natural resources, are major contributors to the crisis (Amel et al., 2017; Dasgupta, 2021; Díaz et al., 2019; IPBES, 2019). The philosophical enquiry into the 'good life' has a long history, dating back to Aristotle (Keyes & Annas, 2009; Ryan & Deci, 2001). The current ecological crisis has intensified concerns about human well-being and ecological sustainability, emphasizing our moral responsibility towards nature and future generations (Dasgupta, 2021; Díaz et al., 2019). Recent discussions have also introduced the concept of planetary well-being, recognizing the moral value of both human and nonhuman well-being (Elo et al., 2024). Consequently, the crisis raises fundamental questions about the essence of a good life, encompassing the well-being of both humans and the rest of nature (Benessaiah & Chan, 2023; Pihkala & Doherty, 2024).

The ecological crisis has also become a major source of anxiety, referred to as 'eco-anxiety' (Hogg et al., 2024; Kurth & Pihkala, 2022; Passmore et al., 2023; Pihkala, 2020a). Eco-anxiety encompasses a wider scope than the distress experienced in response to localized environmental changes and extends beyond 'climate anxiety', which pertains to anxiety related to human-induced climate change (Hogg et al., 2021, 2023; Passmore et al., 2023; Pihkala, 2020a). Eco-anxiety can be conceptualized as a multidimensional construct encompassing a range of distressing psychological emotions related to various interconnected ecological problems, including pollution, ecological degradation, climate change and biodiversity loss (Passmore et al., 2023; Pihkala, 2020a).

Scholars are increasingly examining the range of emotions people experience in response to ecological problems and their potential benefits for human and nonhuman well-being (e.g. Brosch & Sauter, 2023). While eco-anxiety is often linked with difficult emotions such as eco-grief, eco-anger, feelings of powerlessness and eco-guilt, it can also intertwine with expectation, motivation and a sense of hope (e.g. Pihkala, 2020b). There is growing scholarship on various forms of coping and emotion regulation, which shape the impacts of eco-emotions. Many kinds of coping skills are needed,

including problem-focussed coping, emotion-focussed coping and meaning-focussed coping (e.g. Ojala et al., 2021).

Scholars assert that eco-anxiety can fundamentally be considered as an adaptive response to the planet's increasing degradation (Pihkala, 2020a). Thus, depending on how it manifests, it can impact individuals' well-being and behaviour in various ways (e.g. Hogg et al., 2023). Eco-anxiety can paralyse, but it can also spur reflection and action, leading to heightened levels of pro-environmental attitudes and behaviours (e.g. Ogunbode et al., 2022; Schwartz et al., 2023; Verplanken et al., 2020). This emotional response may also reflect one's moral character, meaning morally admirable ecological conscientiousness, and contribute to environmental stewardship and agency while enhancing individual and environmental well-being (Kurth & Pihkala, 2022). Some scholars refer to this adaptive dimension, linked with motivation, as 'practical eco-anxiety' (Kurth & Pihkala, 2022; Pihkala, 2020a).

Nature connection refers to individuals' subjective sense of their interconnectedness with the natural world (Mayer & Frantz, 2004; Nisbet et al., 2011; Pritchard et al., 2020). Research identifies a complex relationship between eco-anxiety and nature connection, where higher levels of nature connection can lead to increased eco-anxiety due to stronger emotional responses to ecological threats (e.g. Clayton & Karazsia, 2020; Lutz et al., 2023; Whitmarsh et al., 2022; Wullenkord et al., 2024). However, a strong connection with nature may also serve as a coping mechanism, helping individuals manage the various emotions associated with eco-anxiety (e.g. Baudon & Jachens, 2021; Passmore et al., 2023; Pihkala, 2020b). Scholars advocate for enhancing nature connection as a crucial response to the ecological crisis, emphasizing its benefits for well-being and pro-environmental behaviours (Barrable et al., 2024; Chawla, 2020; Mikusiński et al., 2023). While much of the research has focussed on the relationship between nature connection and climate anxiety (e.g. Whitmarsh et al., 2022; Wullenkord et al., 2024), there remains a paucity of research investigating the broader phenomenon of eco-anxiety in relation to nature connection and their implications for a good life (Pihkala & Doherty, 2024).

This study examines eco-anxiety and its various manifestations, emphasizing how nature connection is associated with eco-anxiety and well-being. By investigating the interplay between eco-anxiety, nature connection and well-being, this study advances the currently

limited understanding of their association while filling gaps in existing literature. Our main research question is as follows: How does nature connection relate to eco-anxiety and well-being? The following sections are structured around the theoretical framework and study hypotheses, addressing this interplay.

### 1.1 | Human well-being: The hedonic and eudaimonic approaches

The concept of well-being originated from two Western philosophical perspectives: hedonism and eudaimonism (Keyes & Annas, 2009; Ryan & Deci, 2001). Psychologists have built on these philosophies to develop scientific measures for well-being: hedonic (HWB) and eudaimonic (EWB) well-being (Huta & Ryan, 2010; Huta & Waterman, 2014). HWB focusses on the pleasantness of one's experiences, emphasizing the pursuit of pleasure and fulfilling desires (Diener et al., 1999; Kahneman et al., 1999). HWB is often defined by happiness, life satisfaction, pleasure and enjoyment (Diener, 2009; Huta & Ryan, 2010). Subjective well-being (SWB), synonymous with happiness, includes an affective component—characterized by positive affect and the absence of negative affect—and a cognitive component: life satisfaction (Diener et al., 1999). Life satisfaction represents an evaluative perspective on well-being, focussing on one's overall satisfaction with life (VanderWeele et al., 2020).

EWB emphasizes psychological functioning, meaningfulness and self-realization, focussing on optimal living and the development of one's full potential (Huta & Ryan, 2010; Ryff & Singer, 2008; Waterman, 2008). Pursuing EWB often necessitates engaging in challenging activities which, despite potential difficulties, are linked to greater long-term happiness, life satisfaction and a deeper sense of meaning in life (Huta & Ryan, 2010). Theories of EWB identify multiple psychological elements and have been operationalized through over 45 different measures and 63 constructs, including meaning, purpose and optimism (Martela & Sheldon, 2019).

Despite the contrast between these approaches, HWB and EWB positively correlate and influence one another, suggesting they are not mutually exclusive but overlapping (Huta & Ryan, 2010; Waterman, 2008). Individuals with elevated levels of hedonic and eudaimonic motives typically experience the highest levels of well-being, known as human flourishing (Huta & Ryan, 2010; Huta & Waterman, 2014).

### 1.2 | Eco-anxiety and well-being

Research on eco-anxiety and well-being reveals a complex relationship, influenced by varying definitions and measurement approaches (e.g. Pihkala, 2020a; van Valkengoed et al., 2023). Some studies define eco-anxiety as stronger anxiety states, while others use the term to encompass a broader spectrum of anxiety and worry responses (Hogg et al., 2023). Some scholars equate climate anxiety with eco-anxiety, while others make a distinction between the two

(Pihkala, 2020a). Additionally, various measures have been employed, including the Climate Anxiety Scale (Clayton & Karazsia, 2020) and Hogg Eco-Anxiety Scale (Hogg et al., 2021).

Most studies suggest that eco-anxiety negatively impacts mental well-being (e.g. Ogunbode et al., 2022; Schwartz et al., 2023; Stanley et al., 2021). According to Boluda-Verdu et al.'s (2022) systematic literature review, eco-anxiety is linked to symptoms of depression, anxiety, stress, insomnia and higher psychological distress (Ogunbode et al., 2022; Reyes et al., 2021; Schwartz et al., 2023; Searle & Gow, 2010; Stanley et al., 2021).

Research has also presented mixed results. Reyes et al. (2021) found that increased climate anxiety leads to lower mental well-being and higher psychological distress, but not necessarily lower psychological well-being. Similarly, Lutz et al. (2023) reported varied associations between eco-anxiety and well-being, with some indices showing positive, negative and null effects. Although their findings indicate that higher levels of eco-anxiety are associated with poorer mental well-being, these associations tended to be weak (Berry & Peel, 2015). Additionally, some negative eco-anxiety effects may be mitigated by well-being benefits derived from pro-environmental behaviours (Lutz et al., 2023; Schwartz et al., 2023). However, as environmental problems worsen, individuals may experience more severe symptoms of eco-anxiety and mental well-being challenges (e.g. Passmore et al., 2023). Therefore, we suggest:

**H1.** Eco-anxiety negatively relates to well-being.

### 1.3 | Eco-anxiety and nature connection

Nature connection refers to individuals' subjective sense of their interconnectedness with the natural world (Mayer & Frantz, 2004; Nisbet et al., 2011; Pritchard et al., 2020). The theoretical background of nature connection is rooted in Wilson's (1986) biophilia hypothesis, which states that humans possess an innate need to connect with nature, resulting in multiple well-being benefits such as improved cognitive functioning and positive affect.

The ongoing environmental degradation, biodiversity loss and species extinction have raised concerns regarding the potential decline of individuals' innate biophilia (Mikusiński et al., 2023; Nisbet et al., 2009; Nisbet & Zelenski, 2013). A good life is contingent upon individuals' evaluation of and interconnectedness with the natural world. Recognizing our connection with nature makes our lives more meaningful, promotes ecological sustainability and enhances the well-being of future generations (Chawla, 2020; Larson et al., 2022; Mikusiński et al., 2023; Passmore et al., 2023; Pritchard et al., 2020).

Studies indicate that individuals with a strong emotional or cognitive connection with nature are more aware of the ecological crisis and its effects on the natural world (e.g. Jalin et al., 2024; Mayer & Frantz, 2004; Nisbet et al., 2009; Reese et al., 2023; Wullenkord et al., 2024). Most studies have focussed on the relationship between nature connection and climate anxiety, overlooking the broader eco-anxiety (Passmore et al., 2023; Pihkala, 2020a).

Studies show that nature connection is positively associated with climate anxiety (Whitmarsh et al., 2022), climate worry (Lutz et al., 2023), impairment (Wullenkord et al., 2024), symptoms of stress and depression (Dean et al., 2018), and negative emotions in response to climate change (Clayton & Karazsia, 2020). These findings suggest that individuals who perceive themselves as part of nature often experience stronger emotional responses to the climate crisis. However, some studies report no significant relationship between nature connection and climate anxiety (e.g. Reese et al., 2023), while others suggest that nature connection may enhance well-being more in those less concerned about climate change (e.g. Whelan et al., 2022).

Research has also produced mixed results. Some studies indicate that biospheric concern correlates with both ecological stress and coping (Helm et al., 2018). Others suggest that a connection with nature can generate eco-anxiety while serving as a coping mechanism (Baudon & Jachens, 2021; Chawla, 2020). By drawing upon a comprehensive literature review, Pihkala (2020b) concludes that cultivating and sustaining a strong nature connection may serve as a coping mechanism, helping individuals navigate and harness the adaptive potential of various emotions associated with eco-anxiety. Similarly, Passmore et al. (2023) argue that enhancing one's connection with nature is vital for coping with eco-anxiety and addressing environmental concerns, noting that disconnection from nature contributes to environmental distress. Reconnecting with the natural world is therefore considered essential for effectively addressing these concerns (Barrable et al., 2024; Chawla, 2020; Mikusiński et al., 2023). Therefore, we suggest:

**H2.** Eco-anxiety positively relates to nature connection.

## 1.4 | Nature connection and well-being

Recent meta-analyses show that nature connection is positively associated with HWB and EWB (Capaldi et al., 2014; Pritchard et al., 2020). However, studies have produced mixed findings as different aspects of well-being relate to nature connection differently (e.g. Capaldi et al., 2014; Howell et al., 2013). Challenges in comparing findings may also arise from the use of diverse well-being measures (Pritchard et al., 2020). Additionally, variations in the conceptualization and measurement of nature connection—including the Inclusion of Nature with Self (Schultz, 2001), Connectedness to Nature (Mayer & Frantz, 2004) and Nature Relatedness (Nisbet et al., 2009)—can lead to discrepancies. However, these measures are highly correlated and can be viewed as indicators of the same underlying construct (Tam, 2013).

Studies indicate that a strong connection with nature enhances individuals' sense of meaning and purpose in life (Howell et al., 2013; Nisbet et al., 2011). As nature connection entails a sense of meaningful engagement in something beyond oneself, studies imply that its impact on EWB may be stronger than on HWB (e.g. Capaldi et al., 2014; Howell et al., 2011). Pritchard et al. (2020) found that

a stronger nature connection leads to higher levels of personal growth. Furthermore, nature connection is positively associated with psychological and social well-being, highlighting its role in enhancing individuals' flourishing in both personal and social life (Howell et al., 2011; Nisbet & Zelenski, 2013).

Individuals with a strong nature connection also tend to report higher levels of happiness and a greater sense of aliveness and energy (Mayer & Frantz, 2004; Nisbet et al., 2009; Zelenski & Nisbet, 2014). However, studies have produced mixed findings regarding the relationship between nature connection and life satisfaction. While Mayer and Frantz (2004) demonstrated a significant association between the two, other studies found no association (Nisbet & Zelenski, 2013; Zelenski & Nisbet, 2014), except for Nisbet et al. (2011) who reported a positive association after controlling for other environmental attitudes. Therefore, we suggest:

**H3.** Nature connection positively relates to well-being.

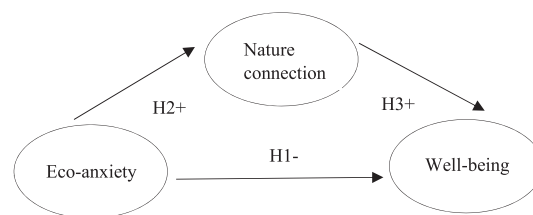
## 1.5 | The current study

Based on the theoretical framework, we derived a research model that combines eco-anxiety, nature connection and well-being (Figure 1). We postulate that eco-anxiety has a negative direct association with well-being (H1-). We also propose that eco-anxiety has a positive direct association with nature connection (H2+). Moreover, we hypothesize that nature connection has a positive direct association with well-being (H3+). However, our model acknowledges the adaptive dimension of eco-anxiety, which can coexist with expectation, motivation and a sense of hope (Pihkala, 2020b) and contribute to environmental stewardship, agency and overall well-being (Kurth & Pihkala, 2022). Therefore, eco-anxiety may also be positively associated with well-being through its relationship with nature connection.

## 2 | MATERIALS AND METHODS

### 2.1 | Study setting

The study examines Finland, a wealthy North European country characterized by a large land area and a sparse population of 5.6 million, mostly living in urban areas. Finland is renowned for its rich



**FIGURE 1** Theoretical framework and hypotheses.

woodlands, widely used for forestry. Despite the utilitarian attitudes towards nature, Finland possesses a strong nature connection and outdoor culture (Koistinen et al., 2021). Finland has a long history of environmental education, leading to heightened levels of environmental consciousness but also environmental worry and anxiety. Since fall 2017, public discussions on eco-anxiety have emerged, raising awareness of this phenomenon. Surveys indicate that many Finns, especially younger individuals, experience eco-anxiety. A national survey revealed that over a third of young Finns suffer from climate anxiety, with 4 to 10 per cent experiencing severe psychosomatic symptoms (Hyry, 2019).

## 2.2 | Sample

The data were collected through an online panel survey conducted in 2022, targeting the Finnish population aged 18 to 65 years. A total of 1013 responses were obtained through stratified random sampling, with respondents evenly divided between two age groups: 18 to 24 years and 25 to 65 years. Additionally, the sample was balanced by gender, with half identifying as female and half as male (Table 1). However, the survey did not incorporate non-binary gender options.

The online panellists were voluntary participants, who opted to engage with the survey in accordance with their personal preferences and interests. Data collection was conducted by an independent Finnish polling company, adhering to the regulations established by both European Union and Finnish legislation. Written informed consent was provided by all participants. The study was evaluated by the JYU Human Sciences Ethics Committee (Ref: 1332/13.00.04.00/2024). Ethics approval was deemed unnecessary, as the study does not fall under the purview of the Finnish Advisory Board on Research Integrity (TENK)

TABLE 1 Sample characteristics.

	<i>n</i>	%
Gender		
Male	481	47.5
Female	532	52.5
Age		
18–21	291	28.7
22–24	211	20.8
25–34	120	11.9
35–49	166	16.4
50–65	225	22.2
Education		
Primary education	123	12.1
Vocational education	250	24.7
Upper secondary education	255	25.2
Bachelor's degree or higher education	385	38.0

guidelines and does not constitute research within the meaning of the Medical Research Act.

## 2.3 | Measures

### 2.3.1 | Controls

Studies identify age, gender and educational background as key predictors of climate or eco-anxiety; especially younger individuals, females, and those with higher education tend to report higher levels of climate or eco-anxiety (e.g. Clayton & Karazsia, 2020; Reese et al., 2023; Searle & Gow, 2010; Verplanken et al., 2020; Wullenkord et al., 2024). Thus, we controlled the research model for the effects of age, gender and educational background.

### 2.3.2 | Well-being

Well-being was measured in accordance with the recommendations by VanderWeele et al. (2020). Hedonic well-being (positive affect) and evaluative well-being (life satisfaction) are measured using a single item ('In general, I usually feel happy' and 'Overall, I am satisfied with my life these days'). Eudaimonic well-being encompasses a set of two items measuring meaning and purpose in life ('I feel that the things I do in my life are worthwhile' and 'I have a sense of direction and purpose in life') and another set of two items measuring optimism ('Overall, I expect more good things to happen to me than bad' and 'If something can go wrong for me, it will' [reverse coded]). Participants indicated how much they agreed with each statement on a scale from 1 ('Strongly disagree') to 10 ('Strongly agree') for consistency with the others. Higher mean scores for each dimension indicate a higher level of well-being.

### 2.3.3 | Eco-anxiety

Eco-anxiety was measured using the Hogg Eco-Anxiety Scale (HEAS; Hogg et al., 2021), which is designed to capture a broad range of symptoms associated with eco-anxiety and has demonstrated distinct associations with well-being and pro-environmental behaviours (Hogg et al., 2024). HEAS encompasses four dimensions: affective symptoms (four items: e.g. 'Feeling nervous, anxious, or on edge'), rumination (three items: e.g. 'Unable to stop thinking about losses to the environment'), behavioural symptoms (three items: e.g. 'Difficulty sleeping') and personal impact anxiety (three items: e.g. 'Feeling anxious about the impact of your personal behaviors on the earth'). Participants indicated how often they experienced each feature of eco-anxiety when thinking about environmental problems, such as climate change, biodiversity loss, and ocean pollution, on a scale from 1 ('Not at all') to 5 ('Daily'). Higher mean scores for each dimension indicate a greater average of frequency.

## 2.3.4 | Nature connection

Nature connection was measured using the short-form version of the Nature Relatedness Scale (NR-6; Nisbet & Zelenski, 2013). NR-6 is like other environmental attitude measures in predicting and assessing pro-environmental attitudes and behaviours, yet it diverges by predicting various well-being indicators at the trait and temporary state levels (Nisbet & Zelenski, 2013; Zelenski & Nisbet, 2014). NR-6 comprises six items from two subscales: self-identification with nature ('self-identity') and contact with nature ('experience'). Four items assess self-identity: 'I always think about how my actions affect the environment', 'My connection to nature and the environment is a part of my spirituality', 'My relationship to nature is an important part of who I am' and 'I feel very connected to all living things and the earth'. Two other items assess experience: 'My ideal vacation spot would be a remote wilderness area' and 'I take notice of wildlife wherever I am'. Participants indicated how much they agreed with each statement on a scale from 1 ('Strongly disagree') to 5 ('Strongly agree'). The NR-6 score is calculated by averaging all six items, with higher scores indicating a stronger nature relatedness.

## 2.4 | Data analysis

To test the research model and hypotheses, CB-SEM with the maximum likelihood estimation method based on confirmatory factor analysis (CFA) was employed using the Lavaan 0.6–17 package for the R 4.3.3 software. Our empirical investigation aimed to test the entire structure of the research model, for which CB-SEM is a suitable method.

## 3 | RESULTS

### 3.1 | Common method bias

To reduce the common method bias (CMB), we changed the questionnaire items and tried to minimize item ambiguity. The standardized root mean square residual (SRMR) (0.05) indicates no unestimated covariance (e.g. residual covariance with indicators) in the data. Therefore, CMB is unlikely to interfere with our results.

### 3.2 | The assessment of measurement model

The measurement model intended to measure the following three constructs: eco-anxiety, nature connection and well-being. The validity of the measurement model and the unidimensionality of the constructed scales were tested with confirmatory factor analysis (CFA). The results of the reliability and validity of the measurement scales show that all the factor loadings were equal to or greater than 0.63 (Table 2).

The items were also found to converge on their assigned factors as the average variance extracted (AVE) values exceeded the

TABLE 2 Results from CFA.

Construct	Item	Factor loading
Well-being	In general, I usually feel happy	0.86
	I have a sense of direction and purpose in life	0.81
	Overall, I am satisfied with my life these days	0.78
	Overall, I expect more good things to happen to me than bad	0.77
	I feel that the things I do in my life are worthwhile	0.74
Eco-anxiety	Unable to stop thinking about losses to the environment	0.85
	Unable to stop thinking about future climate change and other global environmental problems	0.83
	Feeling anxious about your personal responsibility to help address environmental problems	0.83
	Unable to stop thinking about past events related to climate change	0.82
	Feeling anxious that your personal behaviors will do little to help fix the problem	0.82
	Feeling afraid	0.81
	Feeling anxious about the impact of your personal behaviors on the earth	0.80
	Feeling nervous, anxious or on edge	0.80
	Not being able to stop or control worrying	0.78
	Nature connection	My relationship to nature is an important part of who I am
My connection to nature and the environment is a part of my spirituality		0.81
I feel very connected to all living things and the earth		0.76
I take notice of wildlife wherever I am		0.63

threshold value of 0.5. Furthermore, the composite reliabilities for all the factors ranged from 0.85 to 0.95, indicating good internal reliability (Bagozzi & Yi, 2012). We also tested the measurement model for discriminant validity using Fornell and Larcker's AVE method (Fornell & Larcker, 1981) and Bagozzi's method (Bagozzi, 1991). The correlations between the constructs were smaller than 0.6; thus, the square roots of the AVEs showed acceptable discriminant validity because the square roots of the AVE of each construct were bigger than any construct correlation (Table 3).

### 3.3 | The structural model

Table 4 shows the results of the hypothesis testing. The model fit was assessed through several indices, which indicated a good fit

Construct	$\alpha$	CR	AVE	Eco-anxiety	Well-being	Nature connection
Eco-anxiety	0.95	0.95	0.67	0.82		
Well-being	0.89	0.89	0.63	-0.07	0.79	
Nature connection	0.85	0.85	0.59	0.51	0.18	0.77

Note:  $\alpha$  = Cronbach's alpha; CR = composite reliability; AVE = average variance extracted; construct correlations, square root of AVEs (on the diagonal).

Dependent variable	Independent variable	$\beta$	Z	SD	R <sup>2</sup>	Hypotheses
Well-being	Eco-anxiety	-0.39***	-4.91	0.08	0.30	H1: supported
Nature connection	Eco-anxiety	0.58***	15.61	0.54	0.09	H2: supported
Well-being	Nature connection	0.53***	6.67	0.08		H3: supported
Controls	Age group	0.08 <sup>ns</sup>	1.80	0.05		
	Gender	-0.24*	-2.28	0.15		
	Education	0.52***	3.55	0.32		

Note: ns = not significant; age in years (0 = 18–24, 1 = >25); gender (0 = male, 1 = female); education (0 = no higher education, 1 = higher education); model fit:  $\chi^2$  (chi-square) (29) = 106.767; CMIN/DF = 4.68; TLI = 0.93; RFI = 0.91; CFI = 0.94; RMSEA = 0.06; SRMR = 0.05.

\* $p < 0.05$ . \*\*\* $p < 0.001$ .

despite the high chi-square value (Schermelleh-Engel et al., 2003). The values of the Tucker–Lewis Index (TLI), Relative Fit Index (RFI) and Comparative Fit Index (CFI) were above 0.9 and ranged from 0.91 to 0.94; the Root Mean Square Error of Approximation (RMSEA) was 0.06, and the Standardized Root Mean Square Residual (SRMR) was 0.05—all indicating a sufficient fit for the model. The Discrepancy Divided by Degree of Freedom (CMIN/DF) was 4.68—below the threshold value of 5. The conceptual model accounted for 32% of the variance in nature connection and 11.6% of the variance in well-being.

The results supported all the hypotheses. In accordance with the first hypothesis (H1), eco-anxiety negatively related to well-being ( $\beta = -0.39$ ,  $p < 0.001$ ). Eco-anxiety positively related to nature connection ( $\beta = 0.58$ ,  $p < 0.001$ ), providing support for the second hypothesis (H2). Finally, nature connection positively related to well-being ( $\beta = 0.53$ ,  $p < 0.001$ ), supporting the third hypothesis (H3).

We also examined the mediating effect to reveal whether an indirect path exists between eco-anxiety and well-being through nature connection. The indirect effect of eco-anxiety through nature connection to well-being was statistically significant, with an estimated value of 0.30 ( $p < 0.001$ ). The standardized indirect effect was 0.16. The total effect of eco-anxiety on well-being, including direct and indirect effects, was not statistically significant, with an estimated value of  $-0.09$  ( $p = 0.20$ ). The standardized total effect was  $-0.05$ . These results suggest that while the direct effect of eco-anxiety on well-being was negative, the indirect path through nature connection positively contributes to the overall relationship, leading to a non-significant total effect.

TABLE 3 Validity, reliability and intercorrelation.

TABLE 4 Hypothesis testing.

Of the control variables, the age group (0 = 18–24; 1 = > 25) had no significant association with well-being. Women were less likely to experience high levels of well-being, while education level (bachelor's degree or higher) was associated with higher well-being. Despite some control variables having a significant link to the final outcome of the model, their effect did not influence the associations with the constructs examined in the model.

## 4 | DISCUSSION

This study furthers the understanding of the complex interconnections between eco-anxiety, nature connection and well-being. As individuals increasingly confront the realities of environmental degradation, understanding their emotional responses becomes essential for fostering resilience and promoting ecological sustainability. This study is among the first to investigate the interplay between eco-anxiety, nature connection and well-being, offering detailed interpretations of these interconnected constructs and filling gaps in the existing literature. In the following sections, we discuss the main results, their theoretical and practical implications, and suggest directions for future research.

We found a negative relationship between eco-anxiety and well-being, confirming our first hypothesis (H1). This aligns with previous research suggesting that the emotional burden associated with ecological degradation can lead to psychological distress and despair (Ogunbode et al., 2022; Pihkala, 2020b; Schwartz et al., 2023). The implications of this relationship are profound, as they indicate that the psychological toll of environmental threats can detract from

individuals' overall well-being, leading to increased feelings of anxiety, depression and hopelessness (e.g. Clayton & Karazsia, 2020).

Conversely, our study confirmed a positive relationship between eco-anxiety and nature connection (H2). This finding indicates that individuals experiencing eco-anxiety are more likely to feel a stronger connection with the natural world (e.g. Jalin et al., 2024; Reese et al., 2023; Wullenkord et al., 2024). This relationship can be interpreted through moral and ethical lenses; those more attuned to environmental threats may harbour and cultivate a deeper sense of responsibility and interconnectedness with nature (Benessaiah & Chan, 2023; Kurth & Pihkala, 2022; Passmore et al., 2023). Accordingly, eco-anxiety has the potential to catalyse pro-environmental attitudes and behaviours (e.g. Ogunbode et al., 2022; Schwartz et al., 2023; Stanley et al., 2021) and motivate individuals to engage in environmental stewardship and agency. This 'practical eco-anxiety' (Kurth & Pihkala, 2022) is also societally important. When combined with constructive coping skills, it can enhance individuals' sense of meaning and purpose in their lives (e.g. Benessaiah & Chan, 2023; Pihkala & Doherty, 2024).

The positive relationship between nature connection and well-being (H3) further corroborates existing literature positing that a strong connection with nature enhances psychological resilience and overall well-being (Capaldi et al., 2014; Howell et al., 2013; Pritchard et al., 2020). In the face of the ecological crisis, a strong nature connection may be a protective factor against the adverse effects of eco-anxiety, if there is constructive coping (Passmore et al., 2023; Pihkala, 2020b). This finding highlights the importance of cultivating and sustaining a deep-rooted connection with the natural world as a means to enhance a sense of meaning and purpose, as well as individual flourishing (Howell et al., 2011; Nisbet & Zelenski, 2013; Pihkala & Doherty, 2024).

Moreover, our study revealed a statistically significant positive indirect relationship between eco-anxiety and well-being, mediated by nature connection. This suggests that while eco-anxiety may initially detract from well-being, cultivating and sustaining a connection with nature can mitigate these negative effects. This finding is encouraging, indicating that interventions aimed at enhancing nature connection may serve as effective strategies for alleviating negative effects of eco-anxiety (e.g. Passmore et al., 2023). By fostering deeper connections with the natural world, individuals may not only cope with eco-anxiety but harness the adaptive potential of various emotions associated with eco-anxiety (e.g. Baudon & Jachens, 2021; Pihkala, 2020b).

The complexities inherent in the relationships between eco-anxiety, nature connection and well-being underscore the broader theoretical implications of our study. Our study suggests a dynamic interplay where eco-anxiety can evoke feelings of distress but also motivate individuals to seek solace and a stronger connection with the natural world. This duality emphasizes the importance of reframing eco-anxiety not merely as a negative emotional response but as a potential driver for action and engagement with nature (Chawla, 2020; Kurth & Pihkala, 2022; Pihkala & Doherty, 2024). This reframing requires developing skills and resources that enable

individuals to maintain their connection with nature despite difficult eco-emotions. The worst-case scenario occurs when individuals lose their innate connection with nature (Wilson, 1986) due to eco-anxiety, leading to further psychological distress and disconnection from the natural world (e.g. Whitmarsh et al., 2022).

Scholars suggest that instead of distancing individuals from negative environmental news or natural spaces, it is important to develop skills for managing difficult eco-emotions (e.g. Chawla, 2020). This involves focussing on coping strategies, resilience-building and emotion regulation as key elements in addressing eco-anxiety (Pihkala, 2022). By enhancing understanding of these dynamics, individuals can cultivate their emotional responses to ecological threats and strengthen their connection with nature, which enhances their well-being and promotes environmental engagement (Benessaiah & Chan, 2023).

The relevance of our study extends to a wide range of actors, including environmental educators, psychologists and policymakers. Environmental educators can play a crucial role in developing curricula and programs that build coping skills, address eco-anxiety as a legitimate emotional response and promote nature connection, equipping individuals with the tools to navigate their emotional responses to ecological threats (Chawla, 2020; Pihkala, 2020b). Practical methods include mindfulness practices, safe spaces for engaging with eco-emotions and teaching meaning-focussed coping skills (e.g. Ojala et al., 2021).

Environmental psychologists can integrate these findings into therapeutic practices, helping clients transform eco-anxiety into a source of motivation for engagement with the natural world (Baudon & Jachens, 2021). Therapeutic practices that integrate nature connection—such as ecotherapy—can be particularly effective in helping individuals process their eco-anxiety while fostering a deeper connection with nature.

Policymakers can leverage this understanding to create policies that support mental well-being, ensuring community resources align with the needs of individuals grappling with eco-anxiety. Additionally, urban planning efforts that prioritize parks, gardens and natural areas can provide individuals with opportunities to connect with nature, thereby mitigating the negative effects of eco-anxiety. Such initiatives not only contribute to individual well-being but also foster resilience and a sense of collective responsibility for nature (Benessaiah & Chan, 2023).

Notwithstanding its contributions, our study has limitations that present directions for future research. First, while the sample size was adequate, it was derived from a singular country in the Global North, underscoring the need for future investigations to encompass a broader range of populations and contexts, particularly those from the Global South. Future research should also prioritize longitudinal studies to track the development of eco-anxiety and its effects on well-being, considering cultural, socio-economic and geographical factors. Second, our study focussed specifically on eco-anxiety, complicating comparisons with prior research that has mainly addressed climate anxiety. Future studies should differentiate between these constructs, making the

interconnections between eco-anxiety and nature connection more evident. Lastly, while our study investigated the interplay between eco-anxiety, nature connection and well-being, it did not address the various dimensions of these constructs. Future research should aim for a more nuanced understanding of these relationships to better address the emotional challenges posed by the ecological crisis while promoting a sustainable future for humans and the rest of nature.

## 5 | CONCLUSIONS

Our study has illuminated the interplay between eco-anxiety, nature connection and well-being, providing a framework for understanding how they interact amid the ecological crisis. The ongoing ecological crisis underscores fundamental problems in prevailing conceptions of the 'good life', highlighting the need for more holistic and ethical approaches, such as planetary well-being (Elo et al., 2024). Eco-anxiety is closely associated with EWB, raising critical questions regarding a virtuous and meaningful life. While fostering a deeper connection with nature has been shown to enhance happiness and overall well-being, it is essential to address difficult eco-emotions, including grief and anxiety, to sustain a profound relationship with the more-than-human world (Pihkala & Doherty, 2024).

The implications of our study are far-reaching, suggesting directions for future research, education initiatives, therapeutic practices and policy development that can help individuals not only cope with eco-anxiety but transform it into a source of empowerment and active engagement with the natural world. While eco-anxiety may evoke distress, it simultaneously serves as a crucial catalyst for promoting awareness and engaging individuals toward environmental stewardship and agency. The ability to regulate eco-anxiety is an important component of a broader array of constructive coping skills.

### AUTHOR CONTRIBUTIONS

Miia Grénman and Jussi Nyrhinen conceived the idea and designed the methodology; Miia Grénman and Juulia Räikkönen collected the data; Jussi Nyrhinen and Antti Honkanen analysed the data; Miia Grénman and Panu Pihkala led the writing of the manuscript. All authors contributed critically to the drafts and gave final approval for publication.

### ACKNOWLEDGEMENT

Open access publishing facilitated by Jyväskylän yliopisto, as part of the Wiley - FinELib agreement.

### FUNDING INFORMATION

This research was supported by the Strategic Research Council ('Biodiversity-Respectful Leadership'; grant numbers 345662 and 345885).

### CONFLICT OF INTEREST STATEMENT

The author(s) declared no conflict of interest.

### DATA AVAILABILITY STATEMENT

Data available from the JYX Digital Repository <https://doi.org/10.17011/jyx/dataset/98625> (Grénman, 2024).

### ORCID

Miia Grénman  <https://orcid.org/0000-0003-3599-3121>

### REFERENCES

- Amel, E., Manning, C., Scott, B., & Koger, S. (2017). Beyond the roots of human inaction: Fostering collective effort toward ecosystem conservation. *Science*, 356(6335), 275–279. <https://doi.org/10.1126/science.aal1931>
- Bagozzi, R. P. (1991). Further thoughts on the validity of measures of elation, gladness, and joy. *Journal of Personality and Social Psychology*, 61(1), 98. <https://psycnet.apa.org/doi/10.1037/0022-3514.61.1.98>
- Bagozzi, R. P., & Yi, Y. (2012). Specification, evaluation, and interpretation of structural equation models. *Journal of the Academy of Marketing Science*, 40, 8–34. <https://doi.org/10.1007/s11747-011-0278-x>
- Barrable, A., Friedman, S., & Beloyianni, V. (2024). Nature connection in adulthood: The role of childhood nature experiences. *People and Nature*, 6(4), 1571–1580. <https://doi.org/10.1002/pan3.10657>
- Baudon, P., & Jachens, L. (2021). A scoping review of interventions for the treatment of eco-anxiety. *International Journal of Environmental Research and Public Health*, 18(18), 9636. <https://doi.org/10.3390/ijerph18189636>
- Benessaiah, K., & Chan, K. M. (2023). Why reconnect to nature in times of crisis? Ecosystem contributions to the resilience and well-being of people going back to the land in Greece. *People and Nature*, 5(6), 2026–2047. <https://doi.org/10.1002/pan3.10546>
- Berry, H. L., & Peel, D. (2015). Worrying about climate change: Is it responsible to promote public debate? *BJPsych International*, 12(2), 31–32. <https://doi.org/10.1192/S2056474000000234>
- Boluda-Verdu, I., Senent-Valero, M., Casas-Escolano, M., Matijasevich, A., & Pastor-Valero, M. (2022). Fear for the future: Eco-anxiety and health implications, a systematic review. *Journal of Environmental Psychology*, 84, 101904. <https://doi.org/10.1016/j.jenvp.2022.101904>
- Brosch, T., & Sauter, D. (2023). Emotions and the climate crisis: A research agenda for an affective sustainability science. *Emotion Review*, 15(4), 253–257. <https://doi.org/10.1177/17540739231193741>
- Capaldi, C. A., Dopko, R. L., & Zelenski, J. M. (2014). The relationship between nature connectedness and happiness: A meta-analysis. *Frontiers in Psychology*, 5, 976. <https://doi.org/10.3389/fpsyg.2014.00976>
- Chawla, L. (2020). Childhood nature connection and constructive hope: A review of research on connecting with nature and coping with environmental loss. *People and Nature*, 2(3), 619–642. <https://doi.org/10.1002/pan3.10128>
- Clayton, S., & Karazsia, B. T. (2020). Development and validation of a measure of climate change anxiety. *Journal of Environmental Psychology*, 69, 101434. <https://doi.org/10.1016/j.jenvp.2020.101434>
- Dasgupta, P. (2021). *The economics of biodiversity: The Dasgupta review*. Abridged version. HM Treasury.
- Dean, J. H., Shanahan, D. F., Bush, R., Gaston, K. J., Lin, B. B., Barber, E., Franco, L., & Fuller, R. A. (2018). Is nature relatedness associated with better mental and physical health? *International Journal of Environmental Research and Public Health*, 15(7), 1371. <https://doi.org/10.3390/ijerph15071371>
- Díaz, S., Settele, J., Brondízio, E. S., Ngo, H. T., Agard, J., Arneeth, A., Balvanera, P., Brauman, K. A., Butchart, S. H. M., Chan, K. M. A., Garibaldi, L. A., Ichii, K., Liu, J., Subramanian, S. M., Midgley, G. F., Miloslavich, P., Molnár, Z., Obura, D., Pfaff, D., ... Zayas, C. N. (2019). Pervasive human-driven decline of life on earth points to the need

- for transformative change. *Science*, 366(6471), 1–10. <https://doi.org/10.1126/science.aax3100>
- Diener, E. (2009). Subjective well-being. In E. Diener (Ed.), *The science of well-being* (pp. 11–58). Springer.
- Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, 125(2), 276–302.
- Elo, M., Hytönen, J., Karkulehto, S., Kortetmäki, T., Kotiaho, J. S., Puurtinen, M., & Salo, M. (Eds.). (2024). *Interdisciplinary perspectives on planetary well-being*. Taylor & Francis. <https://library.open.org/handle/20.500.12657/63623>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.1177/002224378101800104>
- Grénman, M. (2024). Eco-anxiety, Nature Connection, and Well-being Survey 2022. <https://doi.org/10.17011/jyx/dataset/98625>
- Helm, S. V., Pollitt, A., Barnett, M. A., Curran, M. A., & Craig, Z. R. (2018). Differentiating environmental concern in the context of psychological adaption to climate change. *Global Environmental Change*, 48, 158–167. <https://doi.org/10.1016/j.gloenvcha.2017.11.012>
- Hogg, T. L., Stanley, S. K., & O'Brien, L. V. (2023). Synthesising psychometric evidence for the climate anxiety scale and Hogg eco-anxiety scale. *Journal of Environmental Psychology*, 88, 102003. <https://doi.org/10.1016/j.jenvp.2023.102003>
- Hogg, T. L., Stanley, S. K., O'Brien, L. V., Watsford, C. R., & Walker, I. (2024). Clarifying the nature of the association between eco-anxiety, wellbeing and pro-environmental behaviour. *Journal of Environmental Psychology*, 95, 102249. <https://doi.org/10.1016/j.jenvp.2024.102249>
- Hogg, T. L., Stanley, S. K., O'Brien, L. V., Wilson, M. S., & Watsford, C. R. (2021). The Hogg eco-anxiety scale: Development and validation of a multidimensional scale. *Global Environmental Change*, 71, 102391. <https://doi.org/10.1016/j.gloenvcha.2021.102391>
- Howell, A. J., Dopko, R. L., Passmore, H. A., & Buro, K. (2011). Nature connectedness: Associations with well-being and mindfulness. *Personality and Individual Differences*, 51(2), 166–171. <https://doi.org/10.1016/j.paid.2011.03.037>
- Howell, A. J., Passmore, H. A., & Buro, K. (2013). Meaning in nature: Meaning in life as a mediator of the relationship between nature connectedness and well-being. *Journal of Happiness Studies*, 14, 1681–1696. <https://doi.org/10.1007/s10902-012-9403-x>
- Huta, V., & Ryan, R. M. (2010). Pursuing pleasure or virtue: The differential and overlapping well-being benefits of hedonic and eudaimonic motives. *Journal of Happiness Studies*, 11(6), 735–762. <https://doi.org/10.1007/s10902-009-9171-4>
- Huta, V., & Waterman, A. S. (2014). Eudaimonia and its distinction from hedonia: Developing a classification and terminology for understanding conceptual and operational definitions. *Journal of Happiness Studies*, 15(6), 1425–1456. <https://doi.org/10.1007/s10902-013-9485-0>
- Hyyry, J. (2019). *Kansalaisyksely ilmastonmuutoksesta ja tunteista* [National survey on climate change and emotions]. Sitra, the Finnish Innovation Fund. <https://www.sitra.fi/app/uploads/2019/11/sitra-climate-emotions-report-2019.pdf>
- IPBES. (2019). *Global assessment report on biodiversity and ecosystem services of the intergovernmental science-policy platform on biodiversity and ecosystem services*. <https://doi.org/10.5281/zenodo.3831673>
- Jalin, H., Sapin, A., Macherey, A., Boudoukha, A. H., & Congard, A. (2024). Understanding eco-anxiety: Exploring relationships with environmental trait affects, connectedness to nature, depression, anxiety, and media exposure. *Current Psychology*, 43, 23455–23468. <https://doi.org/10.1007/s12144-024-06098-y>
- Kahneman, D., Diener, E., & Schwarz, N. (Eds.). (1999). *Well-being: Foundations of hedonic psychology*. Russell Sage Foundation.
- Keyes, C. L., & Annas, J. (2009). Feeling good and functioning well: Distinctive concepts in ancient philosophy and contemporary science. *The Journal of Positive Psychology*, 4(3), 197–201. <https://doi.org/10.1080/17439760902844228>
- Koistinen, A., Lehtinen, A., & Nieminen, E. (2021). *Suomalaisten luontosuhteet -kysely* [Finnish nature relationship survey]. Sitra, the Finnish Innovation Fund. <https://www.sitra.fi/en/news/survey-almost-90-per-cent-of-finnish-people-consider-nature-important-to-themselves-there-is-a-wide-range-of-relationships-with-nature-no-single-right-one/>
- Kurth, C., & Pihkala, P. (2022). Eco-anxiety: What it is and why it matters. *Frontiers in Psychology*, 13, 981814. <https://doi.org/10.3389/fpsyg.2022.981814>
- Larson, B. M., Fischer, B., & Clayton, S. (2022). Should we connect children to nature in the Anthropocene? *People and Nature*, 4(1), 53–61. <https://doi.org/10.1002/pan3.10267>
- Lutz, P. K., Passmore, H. A., Howell, A. J., Zelenski, J. M., Yang, Y., & Richardson, M. (2023). The continuum of eco-anxiety responses: A preliminary investigation of its nomological network. *Collabra: Psychology*, 9(1), 67838. <https://doi.org/10.1525/collabra.67838>
- Martela, F., & Sheldon, K. M. (2019). Clarifying the concept of well-being: Psychological need satisfaction as the common core connecting eudaimonic and subjective well-being. *Review of General Psychology*, 23(4), 458–474. <https://doi.org/10.1177/1089268019880886>
- Mayer, F. S., & Frantz, C. M. (2004). The connectedness to nature scale: A measure of individuals' feeling in community with nature. *Journal of Environmental Psychology*, 24(4), 503–515. <https://doi.org/10.1016/j.jenvp.2004.10.001>
- Mikusiński, G., Elbakidze, M., Orlikowska, E. H., Skaltsa, I. G., Żmihorski, M., & Iwińska, K. (2023). Elucidating human–nature connectedness in three EU countries: A pro-environmental behaviour perspective. *People and Nature*, 5(5), 1577–1591. <https://doi.org/10.1002/pan3.10523>
- Nisbet, E. K., & Zelenski, J. M. (2013). The NR-6: A new brief measure of nature relatedness. *Frontiers in Psychology*, 4, 1–11. <https://doi.org/10.3389/fpsyg.2013.00813>
- Nisbet, E. K., Zelenski, J. M., & Murphy, S. A. (2009). The nature relatedness scale: Linking individuals' connection with nature to environmental concern and behavior. *Environment and Behavior*, 41(5), 715–740. <https://doi.org/10.1177/0013916508318748>
- Nisbet, E. K., Zelenski, J. M., & Murphy, S. A. (2011). Happiness is in our nature: Exploring nature relatedness as a contributor to subjective well-being. *Journal of Happiness Studies*, 12(2), 303–322. <https://doi.org/10.1007/s10902-010-9197-7>
- Ogunbode, C. A., Doran, R., Hanss, D., Ojala, M., Salmela-Aro, K., van den Broek, K. L., Bhullar, N., Aquino, S. D., Marot, T., Schermer, J. A., Włodarczyk, A., Lu, S., Jiang, F., Maran, D. A., Yadav, R., Ardi, R., Chegeni, R., Ghanbarian, E., Zand, S., ... Karasu, M. (2022). Climate anxiety, wellbeing and pro-environmental action: Correlates of negative emotional responses to climate change in 32 countries. *Journal of Environmental Psychology*, 84, 101887. <https://doi.org/10.1016/j.jenvp.2022.101887>
- Ojala, M., Cunsolo, A., Ogunbode, C. A., & Middleton, J. (2021). Anxiety, worry, and grief in a time of environmental and climate crisis: A narrative review. *Annual Review of Environment and Resources*, 46(1), 35–58. <https://doi.org/10.1146/annurev-environ-012220-022716>
- Passmore, H. A., Lutz, P. K., & Howell, A. J. (2023). Eco-anxiety: A cascade of fundamental existential anxieties. *Journal of Constructivist Psychology*, 36(2), 138–153. <https://doi.org/10.1080/10720537.2022.2068706>
- Pihkala, P. (2020a). Anxiety and the ecological crisis: An analysis of eco-anxiety and climate anxiety. *Sustainability*, 12(19), 7836. <https://doi.org/10.3390/su12197836>
- Pihkala, P. (2020b). Eco-anxiety and environmental education. *Sustainability*, 12(23), 10149. <https://doi.org/10.3390/su122310149>
- Pihkala, P. (2022). The process of eco-anxiety and ecological grief: A narrative review and a new proposal. *Sustainability*, 14(24), 16628. <https://doi.org/10.3390/su142416628>

- Pihkala, P., & Doherty, T. (2024). Eco-anxiety and happiness. In H. Brockmann & R. Fernandez-Urbano (Eds.), *Encyclopedia of happiness, quality of life and subjective wellbeing* (pp. 405–413). Edward Elgar.
- Pritchard, A., Richardson, M., Sheffield, D., & McEwan, K. (2020). The relationship between nature connectedness and eudaimonic well-being: A meta-analysis. *Journal of Happiness Studies*, 21, 1145–1167. <https://doi.org/10.1007/s10902-019-00118-6>
- Reese, G., Rueff, M., & Wullenkord, M. C. (2023). No risk, no fun... ctioning? Perceived climate risks, but not nature connectedness or self-efficacy predict climate anxiety. *Frontiers in Climate*, 5, 1158451. <https://doi.org/10.3389/fclim.2023.1158451>
- Reyes, M. E. S., Carmen, B. P. B., Luminarias, M. E. P., Mangulabnan, S. A. N. B., & Ogunbode, C. A. (2021). An investigation into the relationship between climate change anxiety and mental health among Gen Z Filipinos. *Current Psychology*, 42(9), 7448–7456. <https://doi.org/10.1007/s12144-021-02099-3>
- Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52(1), 141–166. <https://doi.org/10.1146/annurev.psych.52.1.141>
- Ryff, C. D., & Singer, B. H. (2008). Know thyself and become what you are: A eudaimonic approach to psychological well-being. *Journal of Happiness Studies*, 9(1), 13–39. <https://doi.org/10.1007/s10902-006-9019-0>
- Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research Online*, 8(2), 23–74.
- Schultz, P. W. (2001). The structure of environmental concern: Concern for self, other people, and the biosphere. *Journal of Environmental Psychology*, 21(4), 327–339. <https://doi.org/10.1006/jevp.2001.0227>
- Schwartz, S. E., Benoit, L., Clayton, S., Parnes, M. F., Swenson, L., & Lowe, S. R. (2023). Climate change anxiety and mental health: Environmental activism as buffer. *Current Psychology*, 42(20), 16708–16721. <https://doi.org/10.1007/s12144-022-02735-6>
- Searle, K., & Gow, K. (2010). Do concerns about climate change lead to distress? *International Journal of Climate Change Strategies and Management*, 2(4), 362–379. <https://doi.org/10.1108/1756869101089891>
- Stanley, S. K., Hogg, T. L., Leviston, Z., & Walker, I. (2021). From anger to action: Differential impacts of eco-anxiety, eco-depression, and eco-anger on climate action and wellbeing. *The Journal of Climate Change and Health*, 1, 100003. <https://doi.org/10.1016/j.joclim.2021.100003>
- Tam, K. (2013). Concepts and measures related to connection with nature: Similarities and differences. *Journal of Environmental Psychology*, 34, 64–78. <https://doi.org/10.1016/j.jenvp.2013.01.004>
- van Valkengoed, A. M., Steg, L., & de Jonge, P. (2023). Climate anxiety: A research agenda inspired by emotion research. *Emotion Review*, 15(4), 258–262. <https://doi.org/10.1177/17540739231193752>
- VanderWeele, T. J., Trudel-Fitzgerald, C., Allin, P., Farrelly, C., Fletcher, G., Frederick, D. E., Hall, J., Helliwell, J. F., Kim, E. S., Lauinger, W. A., Lee, M. T., Lyubomirsky, S., Margolis, S., McNeely, E., Messer, N., Tay, L., Viswanath, V., Węziak-Białowolska, D., & Kubzansky, L. D. (2020). Current recommendations on the selection of measures for well-being. *Preventive Medicine*, 133, 106004. <https://doi.org/10.1016/j.ypmed.2020.106004>
- Verplanken, B., Marks, E., & Dobromir, A. I. (2020). On the nature of eco-anxiety: How constructive or unconstructive is habitual worry about global warming? *Journal of Environmental Psychology*, 72, 101528. <https://doi.org/10.1016/j.jenvp.2020.101528>
- Waterman, A. S. (2008). Reconsidering happiness: A eudaimonist's perspective. *The Journal of Positive Psychology*, 3(4), 234–252. <https://doi.org/10.1080/17439760802303002>
- Whelan, M., Rahimi-Golkhandan, S., & Brymer, E. (2022). The relationship between climate change issue engagement, connection to nature and mental wellbeing. *Frontiers in Public Health*, 10, 790578. <https://doi.org/10.3389/fpubh.2022.790578>
- Whitmarsh, L., Player, L., Jiongco, A., James, M., Williams, M., Marks, E., & Kennedy-Williams, P. (2022). Climate anxiety: What predicts it and how is it related to climate action? *Journal of Environmental Psychology*, 83, 101866. <https://doi.org/10.1016/j.jenvp.2022.101866>
- Wilson, E. O. (1986). *Biophilia*. Harvard University Press.
- Wullenkord, M. C., Johansson, M., Loy, L. S., Menzel, C., & Reese, G. (2024). Go out or stress out? Exploring nature connectedness and cumulative stressors as resilience and vulnerability factors in different manifestations of climate anxiety. *Journal of Environmental Psychology*, 95, 102278. <https://doi.org/10.1016/j.jenvp.2024.102278>
- Zelenski, J. M., & Nisbet, E. K. (2014). Happiness and feeling connected: The distinct role of nature relatedness. *Environment and Behavior*, 46(1), 3–23. <https://doi.org/10.1177/0013916512451901>

**How to cite this article:** Grénman, M., Nyrhinen, J., Pihkala, P., Honkanen, A., & Räikkönen, J. (2025). Rethinking the good life amid the ecological crisis: The interplay between eco-anxiety, nature connection and well-being. *People and Nature*, 7, 1738–1748. <https://doi.org/10.1002/pan3.70075>