

Review

Meaningful Experiences in Nature: A Review of Their Role in Shaping Urban Conservation

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Abstract

This review synthesises the existing literature on meaningful experiences in nature and their potential to shape conservation behaviour in urban protected areas. Empirical evidence suggests that individuals are more likely to engage in environmental stewardship when they have meaningful encounters with nature. Such experiences, characterised by strong emotional connection and lasting cognitive impact, can transform perceptions, emotions, and behaviours, as a result motivating pro-conservation actions. To achieve this, a thematic synthesis approach was adopted, guided by inclusion criteria that consider empirical studies, theoretical frameworks, and cultural and spiritual narratives. Drawing on theories such as biophilia and constructivism, the review explores how emotional responses (e.g., awe, wonder, transcendence and life-changing moments) nurture a deeper connection to nature and inspire conservation-oriented behaviours. The findings highlight the importance of designing nature-based activities that evoke meaningful experiences, bridging the gap between emotional connection and practical conservation action.

Keywords: human–nature relationship; meaningful experiences in nature; conservation behaviour; nature experiences; urban conservation

1. Introduction

A growing body of literature highlights the importance of meaningful experiences in nature as a catalyst for promoting conservation behaviour, particularly in urban environments [1–4]. Scholars have used many terms to refer to the meaningful experiences in nature, including emotional affinity toward nature [5,6], nature-relatedness [7], transcendent experience [8], meaningful nature experience [9], nature connectedness [10], profound experience [11], and nature experience [12]. Despite terminological differences, the constructs converge on the notion of a deeply personal and affective bond with the natural environment. In this review, a positive, memorable emotional experience that influences the way someone feels, thinks, and acts toward nature is referred to as a ‘meaningful experience’.

Nature influences human life in many ways, shaping emotions and behaviour [11]. Even brief interactions with nature, such as listening to natural sounds or walking in green spaces, can improve mood and enhance mental clarity [13,14]. These benefits extend to cognitive functioning and overall well-being [15]. The biophilia hypothesis explains this innate human attraction to nature [16,17]. Beyond psychological perspectives, cultural and spiritual traditions have long portrayed nature as a source of meaning, identity, and



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moral guidance [18–21]. Including these narratives highlights the universality and historical depth of meaningful nature experiences, complementing contemporary research and reinforcing the constructivist view that meaning-making in nature is subjective yet culturally embedded.

This human–nature connectedness reflects how natural experiences leave lasting emotional and psychological impressions [2,22]. Research consistently finds an association between time spent in nature and pro-environmental behaviours [4,23–27].

However, most research focuses on general exposure to nature and its psychological benefits, leaving a critical gap in understanding how meaningful nature experiences, particularly within urban protected areas, shape conservation behaviour. This gap is critical, as urban protected areas continue to face environmental challenges, such as habitat fragmentation, human–wildlife conflicts, pollution, invasive species, and recreational overuse, which put pressure on urban ecosystems [28,29]. These stressors not only threaten biodiversity but also limit opportunities for meaningful nature experiences, which are essential for fostering pro-environmental attitudes.

Addressing this gap can reveal how experience-based activities foster human–nature connectedness and translate emotional engagement into tangible conservation actions, informing effective conservation activities. The need for research linking nature experiences to behavioural outcomes, particularly in urban contexts, has been emphasised [23,27]. Responding to this call, this review synthesises evidence on meaningful experiences in nature and their role in shaping conservation behaviour, arguing for intentional design of nature-based activities that nurture such experiences within urban protected areas.

2. Literature Review

2.1. Methodology

This review adopted a thematic synthesis approach to integrate diverse theoretical perspectives and empirical findings on meaningful experiences in nature and their role in shaping conservation behaviour in urban contexts. The aim was to provide a comprehensive understanding of how emotional engagement with nature can inform conservation activities.

Relevant literature was identified through searches in Google Scholar, Mendeley, Scopus, and ScholarText using keywords such as “meaningful experiences in nature”, “human–nature relationships”, “nature connectedness”, “affective response to nature”, “biophilia”, “cultural and spiritual narratives in nature”, “urban nature”, “conservation behaviour”, and “urban conservation”. The search focused on peer-reviewed articles, book chapters and books published between 1997 and 2025. The initial search yielded 398 documents, from which 110 sources were selected based on relevance to the following criteria:

- Exploration of emotional, cognitive, and behavioural dimensions of nature experiences, particularly within green spaces and protected areas;
- Theoretical frameworks explaining human–nature connectedness;
- Empirical studies linking nature experiences to conservation behaviour, with attention to urban settings;
- Cultural and spiritual narratives showing the historical significance of nature as a source of meaning and transformation.

Thematic analysis was used to identify recurring patterns across the literature, grouping findings into thematic areas (subsections), including definitions and characteristics of meaningful experiences, affective response to nature, biophilia theory, constructivism, and practical applications. Table 1 provides a roadmap of these thematic areas discussed in the literature. This structure facilitated the integration of emotional constructs, theo-

retical frameworks, and practical applications, leading to a synthesis of how emotional engagement can be effectively applied in urban conservation initiatives.

Table 1. Overview of thematic areas discussed in the literature.

Thematic Area	Key Focus	Descriptives
1st: Definition of meaningful experiences	Conceptual clarity	Meaningful experiences are characterised as emotionally immersive, cognitively engaging, and transformative, creating a profound sense of involvement [9,30,31].
2nd Characteristics of meaningful experiences	Emotional states leading to emotional connections	Feelings of awe, wonder, transcendence, and life-changing moments nurture a deep and lasting connection to nature [32–34].
3rd Affective responses to nature	Emotional reactions	Positive emotions, such as joy and peace, serve as predictors of pro-environmental behaviour [35–37].
4th Biophilia theory	Innate connection	Humans have an innate emotional bond with nature, a connection that often drives conservation efforts [16,38,39].
5th Constructivist insights	Subjective meaning-making	Personal meaning-making is often shaped by lived experiences, many of which arise from direct interactions with the natural world [9,40,41].
6th From experiences to conservation	Practical application	Emotional engagement plays a crucial role in designing effective conservation activities [42–44].

2.2. Definition of Meaningful Experiences

The Compact Oxford English Dictionary defines “meaningful” as possessing significance, importance, or value, and “experience” as the engagement in activities or situations that contribute to emotional development [45]. Within environmental psychology and related disciplines, the concept of meaningful experiences in nature has been explored extensively. Early contributions emphasised the role of intense emotional engagement, subconscious processing, and relational awareness in shaping such experiences [30]. Further descriptions portray these encounters as emotionally immersive and cognitively engaging, with the potential to enhance environmental awareness and foster eco-conscious behaviours [31].

More recently, meaningful nature experiences were conceptualised as “non-ordinary experiences with/in non-human nature that are particularly profound, significant, affective, and difficult to wholly describe” [9] (p. 44). The experiences are multidimensional, encompassing emotional, cognitive, relational, and behavioural components, and are associated with increased life satisfaction, a sense of purpose, and personal authenticity [46]. Synthesising the perspectives, we define a meaningful experience in nature as a powerful, positive, and memorable emotional moment that overwhelms the self and has an impact on thoughts, feelings, and actions, and as a result, nurtures a stronger connection to nature.

2.3. Characteristics of Meaningful Experiences

To better understand the nature of meaningful experiences, the existing literature on human–nature interactions was examined. Findings consistently highlight that individuals often experience distinct emotional states when immersed in natural environments. The emotions commonly described as awe, wonder, transcendence, and life-changing moments are central to the transformative potential of nature (see Table 2 for their descriptions).

Table 2. The description of the characteristics of meaningful experiences.

Feeling	Descriptions
Awe	A response to nature’s vastness and beauty, evoking humility and reverence [33,34,47].
Transcendence	A sense of unity with nature and connection to something greater than oneself [33,48,49].
Wonder	Curiosity and amazement are triggered by the complexity and novelty of nature [34,50].
Life-changing experiences	Transformative encounters in nature that reshape perspectives and foster growth [32,40].

Nature frequently elicits feelings of awe, which are triggered by its vastness, beauty, and power [51,52]. Such experiences promote emotional calm, happiness, and a sense of connectedness to both nature and others [53,54]. Awe can also foster prosocial attitudes, including kindness and empathy [55,56], and may enhance spiritual awareness and overall well-being [32,54].

This profound emotional state has been described as a transcendent experience, a moment that shifts one’s perception of life and deepens their sense of belonging within the natural world [57]. Activities such as walking in a park or listening to music outdoors can evoke such feelings [33,49], encouraging individuals to engage more actively in environmental protection [58,59].

Wonder, another key emotion, stimulates curiosity and reflection, prompting individuals to acknowledge the complexity and mystery of the natural world [60,61]. These moments often lead to feelings of peace and interconnectedness [33]. Additionally, nature can facilitate life-changing experiences, moments of personal growth, clarity, and renewed purpose that reinforce environmental concern [11,62].

Collectively, the emotional states contribute to personal transformation and foster pro-environmental behaviour. They deepen one’s emotional bond with nature, which in turn motivates protective actions. As aptly stated, “We cannot win this battle to save species and environments without forging an emotional bond between ourselves and Nature as well, for we will not fight to save what we do not love” [63] (p. 40). This sentiment underlines the importance of affective responses to nature in shaping environmental attitudes and behaviours, particularly in urban protected areas where biodiversity is threatened.

2.4. Affective Responses to Nature

An affective response refers to an emotional reaction elicited by a specific stimulus or context [64]. Within the realm of nature experiences, it describes how individuals emotionally respond to their natural surroundings [37]. Empirical studies have shown that emotions such as joy, peace, and even sadness, when experienced in nature, can foster a deeper sense of environmental concern and responsibility [11,36,37]. Emotional responses often strengthen connectedness to nature, which in turn encourages pro-environmental behaviours [35,65,66].

Consistently, “an affective bond with nature was shown to be a significant predictor of nature-protective behaviour” [2] (p. 36). While emotional responses vary across individuals, the majority of people report psychological benefits from spending time in natural environments. To better understand the mechanisms behind this connection, scholars have considered several emotional constructs to explain human–nature relationships, such as emotional affinity towards nature (EATN) [5], inclusion of nature in the self (INS) [67], environmental identity (EID) [68], connectedness to nature (CTN) [69], connectivity with nature (CWN) [70], commitment to nature (CTN) [71], nature relatedness (NR) [7], human–nature connection or connectedness [72,73], and nature connectedness (NC) [10].

Although these constructs differ in subtle ways, they share core features: a personal, subjective sense of connection with nature, which involves thoughts, emotions, and behaviours [74]. The inclusion of several emotional constructs in this review reflects the

multidimensional nature of meaningful experiences in nature. Table 3 compares the emotional constructs mentioned, focusing on their strengths and weaknesses.

Table 3. Comparative analysis of emotional constructs of human–nature relationships.

Construct	Key Focus	Strengths and Weaknesses
EATN	Affective ties as motivators for pro-environmental behaviour	Strength: Empirical support for emotional predictors of conservation and highlights the motivational role of emotions. Weakness: Primarily associative, not causal; lacks cultural inclusivity; overlaps with CTN and NR.
CTN	Feeling of being part of nature	Strength: Links emotional and cognitive dimensions; widely used in research. Weakness: Conceptual overlap with CWN and NR; limited explanation of cultural or situational influences.
EID	Integration of nature into personal identity	Strength: Explains identity-based drivers of behaviour. Weakness: Less emphasis on emotional immediacy; identity formation may vary across cultures.
INS	Self-extension to include nature	Strength: A predictive validity for attitudes. Weakness: Narrow focus on self-concept; does not capture cultural or affective complexity.
NR	Multi-dimensional connection (cognitive, affective, experiential)	Strength: Comprehensive construct; correlates with well-being and conservation. Weakness: Overlaps with CTN and EATN.
CWN	Emotional and experiential ties	Strength: Emphasises experiential engagement. Weakness: Conceptual redundancy with CTN; lacks clear theoretical boundaries.
CN	Long-term dedication to environmental protection	Strength: Highlights sustained behavioural intention; useful for conservation planning. Weakness: Limited empirical testing; overlaps with identity-based constructs.
Human–nature connectedness	A broad sense of interdependence with nature	Strength: Integrates emotional, cognitive, and ethical dimensions. Weakness: Conceptual ambiguity; overlaps with CTN and NR.
NC	Pathways to connect through sensory and emotional engagement	Strength: Practical application in interventions and a strong link to well-being. Weakness: Overlaps with CTN and NR; less emphasis on identity or cultural context.

These constructs align closely with the thematic areas identified in this study. Constructs such as EATN, CTN, and NR directly support the thematic area of affective responses to nature, as they emphasise emotional bonds and feelings of joy, awe, and peace that predict pro-environmental behaviour. EID, INS, and commitment to nature connect to the theme of constructivist insights, illustrating how identity formation and subjective meaning-making shape long-term ecological values. Similarly, NC and human–nature connectedness bridge the thematic areas of characteristics of meaningful experiences and from experiences to conservation, as they translate pathways into stewardship behaviours. Collectively, these constructs provide complementary perspectives, highlighting immediate emotional reactions, explaining identity-based or cultural dimensions.

However, these diverse constructs often overlap conceptually without clarifying their distinct contributions to conservation behaviour. No single construct fully captures the interplay of emotional, cognitive and cultural dimensions. Furthermore, empirical evidence largely demonstrates associative rather than causal relationships, relying heavily on self-reported measures and short-term interventions, which raises questions about the durability

of behavioural outcomes. Cultural and contextual factors remain underexplored [72,73], despite evidence that meaning-making in nature is deeply embedded in cultural narratives and spiritual traditions.

This fragmentation highlights a critical gap, as the current literature rarely explores how emotional engagement interacts with cognitive and cultural contexts to sustain conservation behaviour over time. This is particularly true in urban environments, where experiences of nature differ markedly from those in wilderness settings and are shaped by diverse cultural interpretations.

Addressing this gap requires grounding the discussion in theoretical perspectives that explain how humans relate to nature. Frameworks such as biophilia and constructivism offer complementary insights, with biophilia suggesting an innate evolutionary bond with nature that underpins emotional engagement, while constructivism emphasises the role of cultural narratives and subjective interpretation in shaping environmental attitudes.

2.5. The Theory of Biophilia

The biophilia theory, as presented in this review, provides an evolutionary perspective that explains the meaningful experiences associated with nature. It posits an innate evolutionary bond between humans and living systems, framing emotional responses as biologically ingrained and universal [16]. Derived from the Greek terms *bios* (life) and *philia* (love), biophilia translates to a “love for life” [39] (p. 81). This concept has increasingly shifted scholarly attention toward the emotional dimensions of human–nature relationships, suggesting that such affective bonds can serve as powerful motivators for environmental care and conservation [75,76].

Although biophilia remains a theoretical construct subject to ongoing refinement, it is widely accepted as a useful framework for explaining why individuals feel emotionally drawn to nature and how this connection may translate into ecological action [38]. Emotional attachment alone may not always result in pro-environmental behaviour; however, intrinsic motivation, particularly when nurtured through early and repeated exposure to nature, can significantly enhance one’s commitment to environmental stewardship [77].

As a guiding framework, biophilia helps illuminate how personal experiences in nature shape emotional responses, which may lead to meaningful behavioural outcomes such as lifestyle changes or participation in conservation initiatives [78,79]. This conceptual link is visually represented in the Biophilia Principles and Nature Connectedness Framework (Figure 1) [80].

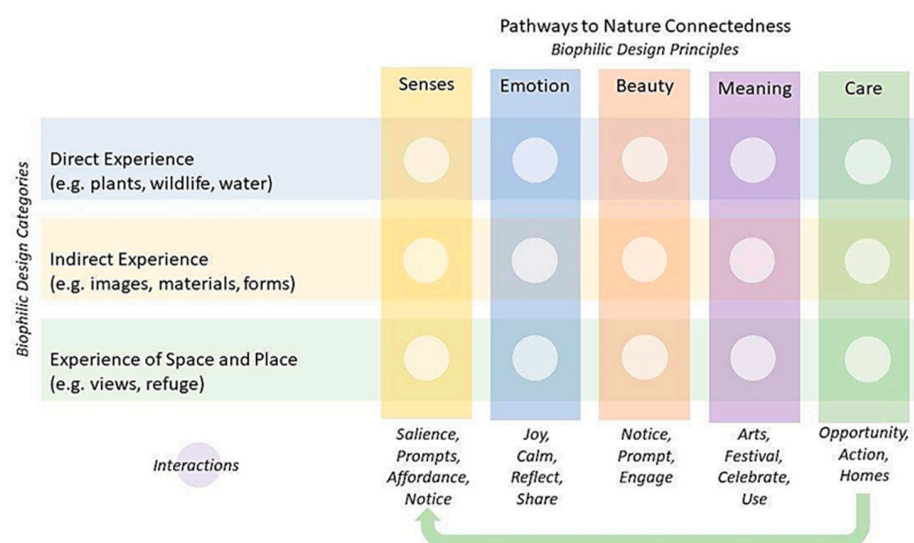


Figure 1. Biophilia principles and nature connectedness framework [80].

The framework illustrates how various types of nature experiences, such as direct interactions with plants and wildlife, indirect exposure through nature-themed imagery, or the emotional connection of feeling safe and inspired in natural spaces, can evoke emotional reactions. This perspective provides a compelling explanation for why natural environments evoke feelings of awe, calm, and care, and why these emotions can motivate conservation behaviour.

This framework aligns with empirical findings from Jones and Roos (2023) [79] and Zhong et al. (2022) [81], reinforcing the view that biophilia is not merely a passive emotional state but a dynamic motivator [82,83]. Nurturing this inborn emotional bond is foundational to shaping conservation behaviour. It is not only about understanding why nature matters, but also about feeling that it matters.

2.6. Constructivist Insights into Deep Experiences in Nature

The constructivist approach adopted in this review highlights the subjective and culturally embedded nature of human–nature relationships. Human development is profoundly shaped by personal experiences, many of which occur in interaction with the natural world [9]. These experiences are inherently subjective, felt and interpreted individually, and are accessible only through introspection [84]. Introspection, a reflective process that brings awareness to thoughts and emotions, enables individuals to articulate internal states through language [41,85]. This lens is particularly valuable for understanding human–nature relationships, as each person’s connection to nature is unique and deeply personal.

This deeply personal meaning-making is frequently rooted in experiences with nature, which often serves as a safe and grounding space for reflection and emotional clarity [40]. Through conscious engagement with natural environments, individuals assign meaning to their experiences and nurture a sense of belonging [9]. Historical and spiritual figures across cultures have long drawn inspiration from nature, illustrating the symbolic role of nature in shaping inner life and offering guidance (see Table 4 for examples).

Table 4. Examples of nature experiences among influential figures.

Figures	Nature Experiences
Jesus (Christianity)	Spent time alone in nature for prayer, especially in the wilderness [19,86,87].
Muhammad (Islam)	Received the first revelation in a mountain cave while meditating [19,88].
Siddhartha Gautama (Buddhism)	Gained enlightenment under the Bodhi tree [19,89].
John Muir (Environmentalism)	Felt a spiritual connection while exploring the mountains [18].
Shamans (Indigenous traditions)	Enter spiritual states in forests and rivers [20]. Believe all parts of nature have spirits [90].
African traditional healers (Nganga, Sangoma)	Spiritually connect with nature [21].

These examples illustrate a constructivist view that meaning is actively constructed through actively interacting with nature, rather than passively received. Recent empirical research builds on these constructivist insights by exploring how everyday encounters with nature can lead to emotional and psychological shifts, as well as contribute to identity development and ecological consciousness. Research has found that profound nature experiences can enhance self-awareness, strengthen social relationships, and promote environmentally responsible behaviour, despite their inherently subjective nature [11]. While experiential types such as Communitas, Flow, and Spiritual experiences alter perceptions of time and self, often resulting in personal transformation [91]. Research on age-specific

benefits reveals that youth derive emotional comfort and relief from both novel and familiar natural settings [92], whereas older adults experience cognitive and emotional benefits through multisensory engagement [93]. Sensory immersion emerges as a recurring theme, with evidence that observing plant forms, hearing birdsong, and touching natural textures enhances meaningful connection to nature [94]; and engaging all senses, including taste and smell, contributes to well-being beyond visual aesthetics [95]. Complementary findings indicate that activities such as hiking, gardening, birdwatching, and journaling foster emotional, cognitive, and educational growth [96,97]. Finally, even simple, contemplative interactions with nature can promote emotional safety and deepen environmental appreciation [98,99].

Collectively, the evidence suggests that nature experiences, whether profound or routine, engage the whole person: mind, body, and emotions. This holistic engagement aligns with constructivist principles; however, there is limited discussion on the practical implications for conservation, while the cultural dimension remains underexplored. Nonetheless, these human–nature interaction studies consistently find an association between meaningful nature experiences and outcomes such as mental health improvements [35,100], empathy [101,102], and pro-environmental behaviour [4,103].

In the context of the urban environment, critics argue that urbanisation and modern lifestyles limit access to immersive natural experiences [104]. Although micro-interactions, such as birdwatching or journaling, offer promising alternatives [93,99], their long-term impact on connectedness with nature and pro-environmental actions remains uncertain. From a constructivist perspective, this uncertainty may stem from the lack of attention to how individuals actively construct meaning from these encounters. Without reflective and socially mediated processes, such interactions risk remaining isolated activities rather than transformative experiences that foster enduring ecological values.

2.7. From Experiences to Conservation

As discussed earlier, meaningful experiences are characterised by deep emotions, affective responses such as joy and peace, and theoretical underpinnings like biophilia and constructivist perspectives. Empirical evidence shows that emotions such as awe and wonder deepen human–nature connectedness, which theories like EATN and CTN identify as strong predictors of pro-environment behaviour. Similarly, biophilia theory suggests that humans possess an innate emotional bond with nature, which can be nurtured through repeated and meaningful exposure. Constructivist insight further emphasises that these experiences shape identity and personal growth, reinforcing ecological values through reflection and meaning-making. Collectively, these insights highlight that emotional engagement is not merely complementary to environmental education; it is foundational for inspiring lasting behaviour changes.

Urban protected areas provide an ideal setting for these insights, providing opportunities to link meaningful experiences in nature with conservation activities. Conservation is broadly defined as “actions that are intended to establish, improve or maintain good relations with nature” [105,106] (p. 565). Conservation activities refer to planned, nature-based initiatives designed to enhance ecological awareness and promote sustainable development through education, hands-on experiences, and community engagement [107].

Recent studies proposed practical activities for translating emotional engagement into conservation action. Activities such as outdoor immersion experiences [43], nature noticing activities through photography and journaling [108], and citizen science initiatives [109] have been shown to evoke emotions like awe, curiosity, and care, which serve as drivers of pro-environmental behaviour. The gamified nature of engagement and learning about

nature through educational programmes further demonstrates how experiential learning can nurture connectedness and motivate protective actions [44,110].

Table 5 links each activity to the corresponding emotional connection and the related thematic area. This integration shows how practical interventions put theoretical and empirical insights into practice, bridging the gap between emotional engagement and conservation behaviour.

Table 5. Activities to strengthen bonds with nature and support conservation.

Activity and Author(s)	Main Findings	Related Thematic Area(s) and Corresponding Emotional Connections
Outdoor journeys [43]	Helps people feel closer to nature, reduces fear, and inspires a sense of care and protection.	Characteristics (awe, life-changing moments) Affective responses (emotions predicting pro-environmental behaviour)
Nature noticing (e.g., photography or journaling) [108]	Significantly boost feelings of connectedness to nature compared to merely spending time outdoors.	Characteristics (wonder) Constructivist (subjective meaning-making through reflection)
Nature education (e.g., tree planting) [110]	Activities help people feel calm, connected, and more willing to protect nature.	Affective responses (emotions predicting pro-environmental behaviour) Biophilia (Innate bond as motivator)
Citizen science (e.g., counting butterflies) [109]	Enhances emotional connection to nature, leading to increased conservation actions.	Characteristics (awe and wonder driving engagement) Affective responses (emotions leading to behavioural outcomes)
Gamified nature engagement [44]	Makes exploring nature fun and meaningful, encouraging learning and responsible action.	Characteristics (wonder and life-changing moments through novel engagement) Affective responses (positive emotions support behaviour change)

These activities hold significant practical implications for urban protected areas. For example, outdoor journeys in urban environments [43], using curated trails and greenways, can create awe-inspiring experiences that foster calmness and a sense of connectedness, leading to stewardship. These immersive routes can strengthen place identity and encourage hands-on conservation tasks such as litter checks or invasive species removal, addressing ecological pressures common in urban environments. Urban nature stations [108], such as benches with prompts or QR codes in pocket parks, can significantly boost connectedness by eliciting wonder and reflection. These short, multisensory activities foster personal meaning and pro-environmental attitudes, even in densely populated neighbourhoods with limited green space. Citizen science initiatives [110], such as butterfly counts or bird monitoring in urban parks and reserves, can increase nature connectedness and well-being while converting curiosity into measurable conservation actions. These programmes are scalable in an urban environment and provide valuable biodiversity data for urban conservation planning. Gamification in urban environments [109], through the use of QR-coded trees and species challenges, can make nature exploration both fun and meaningful. By embedding challenges in daily urban movement, these activities increase the frequency of nature contact and channel enjoyment into stewardship behaviours, such as making habitat pledges. Urban nature education programmes [44], including tree planting and mini-bioblitzes, can evoke feelings of calmness and connectedness while fostering a sense of responsibility to protect the natural world. The initiatives enhance well-being and pro-sociality.

Collectively, these activities demonstrate that emotional engagement can be intentionally embedded in urban conservation initiatives to transform passive exposure into meaningful experiences that inspire action. The activities each activate emotional path-

ways, such as awe, wonder, and reflection, that strengthen connectedness and translate into stewardship behaviours. Their feasibility in urban contexts ensures inclusivity for diverse populations while addressing environmental challenges, such as habitat fragmentation and pollution. For conservation practitioners, the implication is clear that designing interventions which combine emotional engagement with cultural relevance and ease of participation can enhance biodiversity outcomes and foster long-term pro-environmental behaviour. Future research should consider such approaches, exploring how repeated, emotional interactions can sustain conservation actions over time, particularly in urban protected areas.

3. Conclusions

This review advances the understanding of meaningful experience in nature by synthesising psychological, ecological, and cultural perspectives into a unified framework for urban conservation. While previous research has largely focused on general exposure to nature or isolated constructs, such as connectedness, this paper highlights the transformative role of meaningful experiences in motivating conservation behaviour. By integrating theories such as biophilia and constructivism with empirical evidence and cultural narratives, the review demonstrates that emotional engagement is not a supporting factor but a foundational driver of environmental action.

This review contributes to the literature by (1) clarifying the conceptual boundaries of meaningful experiences and their links to behavioural outcomes; (2) bridging fragmented research through a thematic synthesis that connects emotional constructs, theoretical framework, and practical applications; and (3) introducing cultural and spiritual dimensions as evidence of the universality and historical depth of the transformative potential of nature.

In doing so, the review provides a thematic framework for designing interventions in urban protected areas that intentionally evoke meaningful experiences through nature-based activities (e.g., nature notice, citizen science, and gamified engagements), serving as a catalyst for conservation practice. Future research should explore causal pathways, long-term behavioural impacts, and cultural diversity to strengthen evidence and inform adaptable interventions. As previously noted, effective conservation is not only about understanding why nature matters, but about feeling that it matters, and translating that feeling into action.

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