

## In Tune with Nature's Flow

# Exploring the Potential of Surf Therapy to Enhance Participants' Connectedness with Nature

### Abstract

Due to growing alienation from nature, it is becoming increasingly important to support an intact human-nature relationship and thus contribute to protecting the natural environment. This study therefore deals with the potential connection between surf therapy and the participants' connectedness with nature and focuses on intensive engagement with nature through surfing. Data from eight teenagers participating in a surf therapy program were collected using narrative interviews and analyzed using deductive and inductive categories. Results are structured in seven categories and show appreciation for nature, a sense of responsibility, and a feeling of connection. This work can be seen as a first indication of the potential surf therapy. Further research could involve the examination of the identified categories on a larger scale, with a view to deepening understanding of nature therapies with regard to nature connectedness.

**Keywords:** Nature Experience, Nature Connectedness, Surf Therapy, Nature Therapy

## 1. Introduction

Younger generations today are demonstrably less environmentally orientated than their parents' generation (Karlegger, 2010). The dominant lifestyle in the global North has resulted in many people losing their connection with nature. Technology, artificial intelligence, and social media are an integral part of everyday life, while contact with natural phenomena is often lacking (Soga & Gaston, 2016). However, the sense of connectedness to nature has a significant impact on environmental awareness, which, in turn influences environmental behaviour (Gebhard, 2013, p. 67).

Due to these contemporary societal challenges, this study focuses on nature connectedness and its importance, as well as a potential factor to enhance it. Surf therapy primarily aims at human well-being but, as a form of nature therapy, it uses the natural environment and nature as an interactive partner in the therapeutic process (Berger, 2019). The aim of this research is to find out, which potential surf therapy has for connecting participants to nature.

## *1.1. Nature Connectedness and Nature Therapy*

As Wilson (1984) has described, human well-being depends on a connection with nature. According to his biophilia hypothesis, the alienation of humans from nature has negative psychological consequences. In contrast, a healthy human-nature relationship emerges from direct nature experiences, which influence individuals' attitudes towards nature in a long-term and sustainable way (Gebhart, 2013). Therefore, a positive human connectedness towards nature depends on personal engagement and a tangible connection between humans and the natural world (Weber, 2016). Dimensions for describing experiences leading to nature connectedness have been developed by Mayer (1996), further defined by Bøgeholz (1999) and exemplarily applied by Meske (2011). These dimensions include observing and discovering natural phenomena, growing, collecting and using natural products, protecting nature and being aware of the environment, experiencing aesthetic natural phenomena, and being embedded in social situations while experiencing nature (also with humans and other living beings as well) (Mayer, 1996).

Nature therapeutic work aims to deepen the sense of primordial oneness (Kreszmeier, 2012), thereby helping individuals to perceive their connection to their origins. It seeks to enhance well-being by incorporating nature as both a space and an interactive partner (see e.g., Berger, 2006; 2019). Only under this condition humans can recognize their position within the complex web of relationships and act accordingly. The effects of this therapeutic approach operate at three distinct but complementary levels (Heule, 2007). Movement is an integral part of this therapy and has a positive effect on both the physical body and the psyche, by stimulating the autonomic nervous system and initiating internal processes. In addition, the environment is as a crucial factor, with nature acting as a reflective space in which every movement and action of the individual triggers a change and provokes a response. Nature therapy often provides opportunities to externalise internal processes through analogies with natural phenomena. Finally, meaningfulness emerges as an influential variable; within the framework of nature therapy, individuals can reconnect with fundamental aspects of existence. Overwhelming influences can be mitigated (Song, Ikei & Miyazaki, 2016) and contact with nature evokes a familiarity rooted in evolutionary biology (Wilson, 1984).

## *1.2. Surf Therapy*

Surf therapy integrates surfing as a therapeutic tool into the process (ISTO, 2018; Brennan, Stain, Marshall, 2024). Through intense engagement with nature while surfing, participants actively experience the natural environment, which serves as both an interactive space and a partner. In this context, surf therapy follows the principles of nature therapy outlined above and is treated as such in this study (ibid.).

A critical factor in the effectiveness of surf therapy is the creation of a safe environment (Grossmann, 2019) in which participants feel comfortable and secure,

allowing them to trust and fully engage in the therapeutic process. In addition, it is important that the activity has a challenging character (Grossmann, 2019). Surfing, in particular, provides ample opportunity for individuals to step outside of their comfort zones, as it takes place in the open ocean — an environment that is not commonplace for most participants. Surfing also requires a high level of physical effort, coordination, endurance, and body tension, making it physically demanding. On a psychological level, patience, willpower, focus, and acute awareness and assessment of the environment are essential (e.g. McKenzie et al., 2021).

In practice, surf therapy programs are highly diverse. Some are linked to clinical institutions and integrate surfing into the existing therapeutic setting<sup>1</sup>. Others are structured as projects within non-profit associations<sup>2</sup>. Typically, in addition to surf instruction, these programs include various activities such as exercises for self-awareness and interpersonal perception, reflection, and emotional management (Benninger et al., 2020). Group dynamics exercises are also often included, as surf therapy often takes place in a group setting. Such programs often target populations facing difficult life circumstances, such as those affected by illness, mental health problems, or those who have experienced violence or displacement (Benninger et al., 2020).

Research has shown that surf therapy can effectively foster increased empathy, responsibility, and engagement, as well as improve skills in cooperation, communication, and self-regulation (Stuhl & Porter, 2015; McKenzie et al., 2021). It is beneficial in reducing emotional problems (Olive et al., 2023) and in facilitating a greater awareness of one's own body (Britton & Foley, 2020). It also promotes a sense of connectedness, not only to oneself but also to the group and to nature (Britton & Foley, 2020). According to the same study, experiencing nature leads to a deeper understanding of it, thereby creating the potential for increased environmental awareness.

Given these findings, it is particularly compelling to explore the relationships between nature experience during surfing and nature connectedness in greater depth. Therefore, the empirical component of this study is dedicated to the following question: What potential does surf therapy have for enhancing participants' connection to nature?

## 2. Material and Methods

In collaboration with the Social Surf Club e.V.<sup>3</sup> from Hamburg, eight participants of a week-long surf camp in Denmark were interviewed. The non-profit organisation offers free camps for children and adolescents, funded through donations. Participants often come from challenging backgrounds, dealing with issues such as unstable family circumstances, mental health problems, poverty, or experiences

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1 e.g. <https://www.syltklinik.de/ihre-reha>

2 e.g. <https://waves-for-change.org>

3 <https://thesocialsurfclub.org>

of violence and displacement. The camps, organised and supervised by volunteer mentors, adhere to the previously outlined principles of surf therapy and provide not only shared surf lessons but also a variety of additional activities, including other sports, creative pursuits, and group games. The emphasis is on promoting values such as tolerance, appreciation, and mutual support, with the organisation serving as a safe space for young people to discover themselves and develop freely.

An exploratory qualitative research design was used to gain initial experiential insights into the human-nature relationship of participants in a surf therapy programme.

## 2.1. Interviews

Narrative interviews (Helfferich, 2011) facilitated free storytelling, allowing for a thorough exploration of the individual experiences of the interviewees. Given the young age of the eight respondents (16 to 22 years), guiding questions were formulated in advance, based on the research interest and underlying theory focussing on experiences but without guiding towards nature connectedness explicitly<sup>4</sup>. These questions were introduced as needed during the conversation; however, the primary focus remained on encouraging narrative storytelling and engaging in intrinsic follow-up questioning (Helfferich, 2011).

The interviews took place in May 2024, at the end of a week-long camp for young people aged 16 to 22. This timing facilitated a connection with their recent experiences. Participants volunteered for the interviews and were informed only told that the focus would be on their surfing experiences. The connection between surfing and nature experiences was deliberately not mentioned explicitly so as not to disrupt or guide the free narrative of the narrative interviews.

## 2.2. Analysis

The data analysis can be described as open coding which was guided by the inductive category formation approach outlined by Mayring (2015, pp. 69ff) based on the research question and the theoretical background. This approach is highly open to the results, as the categories are not predefined but derived from the collected data. Yet in this study guiding questions were used which led to a combination of theoretical ideas and newfound categories (Silverman, 2013). Such method provides a high degree of flexibility to respond to new insights during the analysis. The process of analysis can be structured as follows: careful examination of the material, marking of relevant segments, grouping of similar statements, verifying the resulting categories, and, if necessary, further subdividing them, followed by the interpretation of the data. This method is characterized by its proximity to the material, which

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4 Interview guideline can be provided by the authors upon request; opening question: why are you here at the surf camp?

seemed appropriate for this research. In order to identify potential, it was not necessary to apply pre-defined categories; instead, new aspects were uncovered through the participants' narratives.

To improve readability and comprehension, the quotes presented in the results section have also been grammatically refined.

### 3. Results

Based on the research questions and theoretical considerations regarding the human-nature relationship and nature connectedness, the following seven categories were formulated from the interviews with participants concerning surf therapy week.

#### 3.1. Categories

The identified categories describe potential relationships between nature experiences during surfing and the sense of connectedness to nature. They were formulated closely in line with the research interest in order to categorize the nature connectedness (Fig. 1).

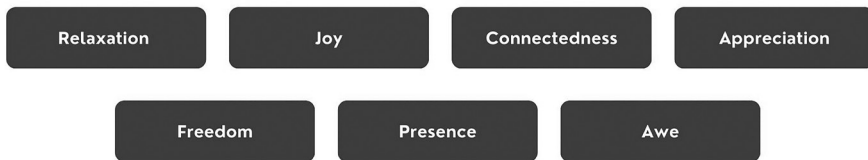


Figure 1: Identified categories

The following sections describe the key aspects of each category, accompanied by a representative quote from the interview material.

##### 3.1.1. Relaxation

This category comprises statements pertaining to the individual and their wellbeing, emphasizing the positive effects of surfing and nature experiences. Key aspects that are mentioned include achieving a state of calm, the act of letting go of burdensome thoughts and emotions, and the experience of a sense of tranquility.

- '[...] because you are there for yourself and can simply unwind out on the water.' (Interview 2, line 47f)

### 3.1.2. Joy

The feeling of joy was frequently mentioned and often associated with fun and happiness. Participants indicated that these feelings extended beyond immediate experiences. They reported not only the joy of surfing and experiencing nature, but also that the surf therapy experiences would trigger lasting positive emotions. One participant described surfing as a “safe space”, to which one could mentally return later to evoke those positive feelings again.

- ‘I think surfing can help you a lot when you’re just not feeling well [...]. It’s just kind of a happy experience.’ (Interview 5, line 163ff)

### 3.1.3. Connectedness

In this category, various aspects related to the feeling of connectedness were distinguished, nature was frequently mentioned in this context. The interviewees described different situations in which they felt a significant connection with nature while surfing, such as when they physically experienced the power of the waves. Other aspects included the sensation of seawater on their skin, interacting with other creatures in the water, and the feeling the energy of a wave when riding it.

- ‘When you’re standing on the board and surfing the wave along, then you’re one with nature and of course, you also notice that you’re extremely close to nature, because you’re just traveling so -- so fast with the wave and it’s just the wave and you and there’s virtually no one else, [...] really just you and nature interacting.’ (Interview 8, line 146ff)

### 3.1.4. Appreciation

This category includes statements related to appreciation, gratitude, or respect for nature. Specifically, these feelings were predominantly expressed in relation to the natural environment of the sea, which is particularly relevant for surfing. Furthermore, some participants articulated sentiments that went beyond mere recognition of nature and addressed a resulting sense of responsibility towards it. Some statements even included concrete calls for action, such as the need to protect the oceans from pollution.

- ‘Without nature, there would be no surfing. Without the swell, without the sandbanks, without the water, without the sand, there would be no surfing. That’s very important. But not just for surfing. The environment is our habitat [...] and we should take care of it.’ (Interview 3, line 48ff)

### 3.1.5. Presence

This category describes a state of being in the moment that arises through surfing. It relates to the concept of flow, which encompasses a complete and immersive presence and engagement (Nakamura & Csikszentmihalyi, 2014). While surfing, participants are fully focused on their current activity and surroundings, allowing them to achieve such a state.

- ‘For me it’s often the case that I’ve simply forgotten my personal problems [...] and I’m just really in the here and now, and I think that’s pretty blatant because you just live in the moment.’ (Interview 8, line 109ff)

### 3.1.6. Awe

The participants described a sense of awe towards nature as evinced by their experiences while surfing. In most cases, the triggering experiences were situations in which the power of nature was experienced physically, such as the pressure of the water masses when you are held underwater by a wave or when it crashes against the body.

- ‘[You] also feel this blatant nature and that you are [...] almost nothing against it.’ (Interview 2, line 66f)

### 3.1.7. Freedom

As posited by several of the participants, surfing engenders a sense of freedom. It is important to note the distribution of mentions in the eight interviews. Although the category of freedom was mentioned frequently overall, it was only mentioned in five out of eight interviews.

- ‘I would call it a kind of freedom, the feeling of simply being in the water, being so close to nature, having control over your own board and having control, so to speak, over how you surf the wave, that’s simply a kind of freedom that nobody can take away from you when you’re on the wave [...]’ (Interview 8, line 32ff)

## 3.2. Relevance of Categories

The frequency with which a particular category was mentioned can be analysed in two ways. Firstly, the absolute frequency, i.e. the number of times this category was mentioned in all eight interviews, is shown on the left-hand side of Figure 2. This illustration does not show how many people mentioned it in each case. This is also shown on the right-hand side of Figure 2, in how many of the eight interviews the respective category was mentioned at least once. The combination of these two analyses provides a comprehensive representation of the relevance of each category.

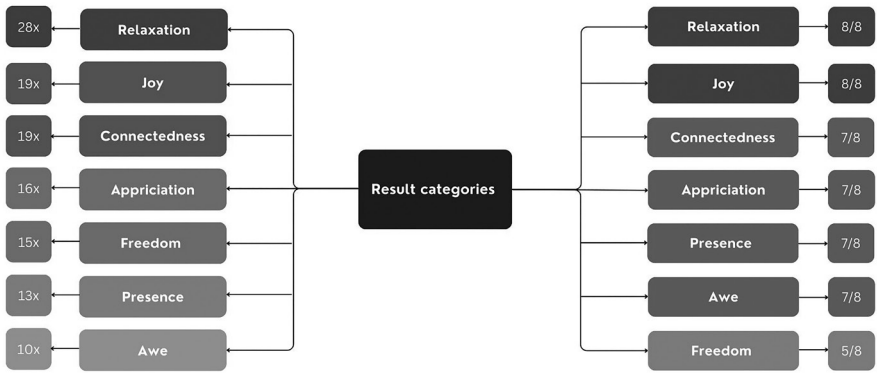


Figure 2: Categories ordered by absolute frequency of mentions (left) and by number of interviews (right)

### 3.3. Relations of Categories

In relation to the research interest, the ‘connectedness’ category is of particular interest, with the majority of its mentions pertaining to nature and thus demonstrating a clear association between the surfing experiences made and a perceived closeness to nature. Upon examining the common mentions of the topic of the concept of closeness to nature in conjunction other categories, those of ‘appreciation’ and ‘awe’ emerge as notable categories. This observation suggests that the perception of these two aspects may have triggered a stronger sense of connection to nature among the participants.

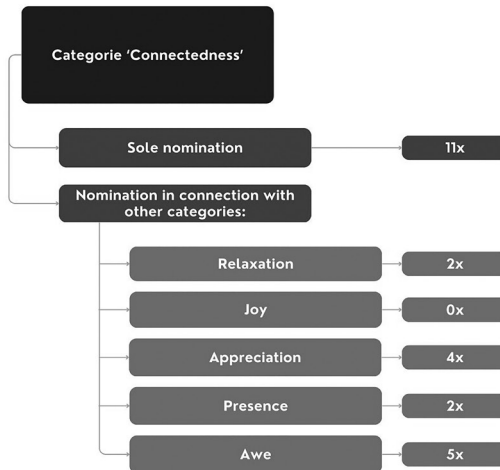


Figure 3: Interactions of the categories with ‘connectedness’

## 4. Discussion and conclusions

The analysis of the results indicates a favourable impact of the surfing experience on the participants' connection with nature. This was documented in seven out of eight interviews, predominantly without the interviewer explicitly referencing nature beforehand. The data material frequently alludes to a sensory and emotional attunement to nature, suggesting that surfing engendered a profound connection with the environment. The experience of the forces of nature and the cultivation of mindfulness appear to be particularly pertinent in this context. This finding is consistent with the extant literature, as evidenced by a study from Ireland demonstrating that immersive experiences of nature facilitate a deeper understanding of the natural world (Britton & Foley, 2020).

Conversely, the interviewees identified the sense of responsibility as the component that was most frequently mentioned on a rational level. This was substantiated by their experiences while surfing, which created a clear connection to nature clear, in contrast to the otherwise often described disconnection. The data material also contains indications of a stronger understanding of sustainability. The concept of a reciprocal relationship with nature, as exemplified by surfing, was addressed, as this sport makes one's own dependence on nature very obvious. The notion of utilising nature in a manner that does not cause harm or at the very least, provides a beneficial return, can thus be extrapolated from a specific, limited context, to a more expansive one. Lude (2005) posits that the potential for such experiences is amplified when they are consciously thematised and integrated.

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