



## Educational potentials of encounters with nature: reflections from a Swedish outdoor perspective

Klas Sandell & Johan Öhman

To cite this article: Klas Sandell & Johan Öhman (2010) Educational potentials of encounters with nature: reflections from a Swedish outdoor perspective, *Environmental Education Research*, 16:1, 113-132, DOI: [10.1080/13504620903504065](https://doi.org/10.1080/13504620903504065)

To link to this article: <https://doi.org/10.1080/13504620903504065>



Published online: 17 Feb 2010.



Submit your article to this journal [↗](#)



Article views: 2665



Citing articles: 50 View citing articles [↗](#)

## **Educational potentials of encounters with nature: reflections from a Swedish outdoor perspective**

Klas Sandell<sup>a\*</sup> and Johan Öhman<sup>b</sup>

<sup>a</sup>*Department of Geography and Tourism, Karlstad University, Karlstad, Sweden;* <sup>b</sup>*School of Humanities, Education and Social Sciences, Örebro University, Örebro, Sweden*

*(Received 28 April 2008; final version received 29 May 2009)*

Direct encounters with the natural environment have a long tradition in environmental education. Given that the role and character of these encounters are shaped by the approach taken to environmental or sustainability education, there is a risk that a shift towards pluralistic and political approaches will lead to a neglect of nature encounters. On the basis of an analysis of Swedish/Scandinavian outdoor and environmental history and current Swedish outdoor education practice, we suggest six potentials of encounters with nature: (1) an experience-based meaning of nature; (2) a relational ethical perspective; (3) the addition of a fourth perspective to sustainable development; (4) human ecology in practice; (5) sensing the quality of a simple life; and (6) democracy, identity and dwelling. We argue that these potentials widen the scope of environmental and sustainability education, while highlighting the need for a situated, dynamic and process-oriented concept of nature, rather than a static one in which nature is understood as a particular place or specific organisms.

**Keywords:** environmental education; sustainability education; outdoor education; friluftsliv; environmental history; nature experience

### **Introduction**

Direct encounters with the natural environment have a long tradition in environmental education in Sweden (Dahlgren and Szczepanski 1998; Brügge, Glantz, and Sandell 2007; Sundberg and Öhman 2008) as well as in many other countries (Cornell 1989; Hammerman, Hammerman, and Hammerman 2001; Öhman 2003; Rickinson et al. 2004). The role and character of these encounters is related to the educational approach taken; an approach which in Swedish environmental education has undergone considerable change in recent years (Sandell, Öhman, and Östman 2005; Rudsberg and Öhman this issue). In the 1980s and 1990s, the role of outdoor education was mainly based on a belief in a strong connection between stimulating outdoor experiences, care for nature, and behavioural change (Bradley 1999; Schindler 1999). However, in recent years a more *pluralistic* approach to environmental and sustainability education has developed in Swedish schools (Öhman 2004, 2008; Sund 2008; Rudsberg and Öhman this issue). This approach can be seen both as a response to the increased complexity of environmental and sustainability issues and as a reflection of the international educational debate.<sup>1</sup> Within this approach environmental and sustainability issues are seen

---

\*Corresponding author. Email: klas.sandell@kau.se

as political problems. Since such issues are recognised as having a value dimension, and that this can lead to conflicts between different interests, values and world views, an important educational aim is that students develop their capacities to critically relate to different perspectives and participate in democratic discussions in which different alternatives are assessed (see Mogensen and Schnack this issue).

In this transition we argue that there is a danger that our relation with nature is neglected when different interests are considered, and that environmental and sustainability issues become a matter of human welfare only, and are solely viewed from a limited anthropocentric perspective (Bonnett 2007). In short, we argue that nature, and more specifically direct encounters with the natural environment, can add important perspectives to the environmental debate and thus play a vital role in a pluralistic approach to environmental or sustainability education.<sup>2</sup> The purpose of this article is to discuss this potential on the basis of several recent studies<sup>3</sup> of Swedish/Scandinavian environmental history, outdoor traditions and outdoor educational practices. It is not our ambition to claim causal relationships between outdoor experiences and knowledge, attitudes and behaviour, or other direct psychological aspects of outdoor education. Rather our aim is to highlight the values embedded in outdoor experiences and discuss how encounters with nature can widen the scope of environmental and sustainability education.

Therefore, looking at the sequence of this article from the point of view of the risk of losing the educational potential of encounters with nature in a more pluralistic approach, we start by considering the kinds of potential that have been previously identified. This is achieved with the aid of an historical overview of some of the central themes of Swedish and Scandinavian outdoor recreation and outdoor education development. Owing to the importance in the pluralistic educational approach of values-related issues involving basic reflections about social development, politics, and morals, two specific aspects of this history are highlighted: the democratic view of the landscape associated with the right of public access, and the influence of a politically radical and socially critical outdoor movement linked to Norwegian deep ecology.

In the second section of the article we address the question: to what extent and how are these historically detected values of encounters with nature expressed in current educational practice? We illustrate the potentials of nature encounters with regard to environment, democracy and development using empirical data from a recent Swedish research project. The data consist of video recordings from three diverse outdoor education case practices: outdoor education with roots in traditional biology excursions; outdoor activities designed for children's development; and outdoor education connected to the radical outdoor movement. Using a qualitative approach we illustrate three possible implications of encounters with nature connected to the studied practices: moral reactions in relation to living beings; integration of nature with the human life world; and inspiration for ethical reflections on lifestyle and societal development.

In the final section we discuss the educational possibilities of encounters with nature in a pluralistic approach to environmental and sustainability education based on the historical data and qualitative findings. From this we identify six aspects of encounters with nature that describe the potentials of outdoor education, namely: (1) an experience-based meaning of nature; (2) a relational ethical perspective; (3) the addition of a fourth perspective to sustainable development; (4) human ecology in practice; (5) sensing the quality of a simple life; and (6) democracy, identity and dwelling.

## Outdoor life, democracy and social development

### *The environmental history of outdoor life in Sweden*

Since the end of the nineteenth century, experience-orientated encounters with nature have been developed in both Sweden (Sandell and Sörlin 2008) and other Western industrial countries using concepts like outdoor life (*friluftsliv* [literally ‘free-air-life’]), outdoor education, nature-based tourism, and social nature conservation. The earlier establishment of these perspectives in Sweden – through outdoor-related organisations such as the Scout movement, the National Association for the Promotion of Outdoor Life, and the Swedish Tourist Association, and in the form of national parks and the Swedish Society for Nature Conservation – was clearly connected to society’s prosperous elite in the fields of science, the church and the military. Children’s and young people’s education and upbringing have always been important aspects of such ambitions, and both school and recreational interests in nature have been regarded as a national identity and mobilisation tool. But this was also a time of turbulence, with acute right–left political conflicts, struggles over the franchise, migrations to North America, and a major socio-cultural transition from a village-oriented countryside existence to an urbanised industrial society. From the very beginning – and in spite of obvious connections to conservation movements and conservative tendencies – experience-based nature encounters were impregnated with Romanticism’s critique of civilisation and the search for alternatives to modern, short-sighted and material values. There are international parallels here too, of course, with for example, the work of the philosopher Henry David Thoreau and the naturalist John Muir in the nineteenth century in the USA.

A democratisation of outdoor life organisations and activities took place in Sweden in the 1930s in an attempt to broaden their public appeal. During the early 1900s outdoor life activities and organisations had been dominated by the upper class, and particularly by men. Sweden’s democratisation, in conjunction with the Compulsory Holidays Act and better material welfare provisions, made it possible for more sections of the population to devote their leisure time to nature-related activities. Cycling holidays, youth hostels and camping became typical features of this outdoor expansion. The health and recreation perspective was emphasised and both women and the local environment were given a much higher profile than had previously been the case. The government and public authorities became much more involved and, in addition to schools’ outdoor activities, which had long been regarded as important, the general public’s leisure time and outdoor life were also highlighted.

After World War II, and in parallel with the development of a post-war material welfare society, the outdoor life also became increasingly ‘materialised’ in the shape of holiday cottages, caravans, pleasure boats and advanced outdoor equipment. Private motoring flourished and came to play a central role in people’s longing to engage in nature. The government’s interest in planning and controlling outdoor life became more evident around this time, exemplified in the town and country planning that began in 1967. Outdoor life issues also became an important feature of the work of the Swedish Environmental Protection Agency, established the same year. Open-air facilities, a channelling to certain areas as well as the removal of ‘obstacles’, such as a lack of information, parking areas, footpaths or windbreaks, were all features of a public outdoor policy implemented largely through regional outdoor and nature conservation trusts and organisations. Particularly after the 1970s, the growing modern engagement with environmental matters led to government and agency attention being

increasingly directed towards environmental toxins, excessive fertilisation, mountains of refuse, biological diversity, and so forth. In addition, and in connection with a tougher social economic policy, the authorities successively toned down their broad public commitment to outdoor life activities and promotion.

### *The twenty-first century – a pattern of diversity*

At the beginning of the twenty-first century, the powers-that-be highlighted the experience value of natural landscapes on the basis of public health, environmental engagement, and regional development. Also, regional development has now become closely linked to a general increased interest in nature-based tourism and is regarded as a useful tool in the prevention of countryside depopulation. A central theme of the democratic perspective associated with this, and which also has obvious international parallels, is the express interest in stimulating more local involvement in reserves. This is often motivated by the role the reserves play in the urban population's nature experiences and the rural population's revenue. Unsuccessful attempts to establish national parks during the late 1990s, based on a 'top-down' perspective in which central scientific and tourist interests were identified for 'nature conservation' and the local population were expected to accept their designation, led to a perspective shift towards a more local democratic 'bottom-up' approach. International ambitions for corresponding perspective shifts from 'top-down' and expert-dictated to local involvement in regional development are also relevant here (Zachrisson et al. 2006). Government and authority interests in the social and educational aspects of outdoor life and nature tourism are clearly expressed in the government directives of the early twenty-first century, and especially those emphasising the right to public access and environmental education (Government Directives 2002).

In a discussion about the reasons for engagement in outdoor life we can trace its historical growth to sources such as the *Boken om friluftslif* [The book of outdoor life] (1910), the Foreword of which states:

In nature there is peace and quiet, where the air is clean and where fresh winds blow that can cool you down and chase away tiring thoughts. Much has been done so that especially young people, on which our future depends, will be drawn towards a healthy and restorative life in God's wonderful creation. ...But it is not only young people who need an outdoor life. It is often just as necessary for older people. Tired, overworked and edgy, they will regain health and strength much more easily through regular outdoor activities than through hundreds of different kinds of medicines. (Translation by Sue Glover Frykman)

In this quotation, which marks the beginning of the outdoor life epoch, it is not difficult to recognise some of the most common reasons behind today's interest in the outdoors. The legitimisation of the outdoor life – why one should go 'outside' – can largely be traced back to two specific incentives:

- that the outdoor life is a good *method* for a variety of purposes, such as bodily and mental health, science, group solidarity and environmental awareness
- that there is an *intrinsic value* in outdoor life and contact with nature that cannot be found in noisy and culture-weighted urbanised industrial society.

Now, at the beginning of the twenty-first century, we live in a time of diversity when it comes to the expression of this experience-oriented encounter with nature. We hear

fiery cries for the outdoor life for public health reasons, see a greater interest in ‘all-weather’ pre-schools and schools, listen to an environmental discussion in which everyone is said to favour ‘sustainable development’, and observe that outdoor clothing, outdoor sports and ‘wilderness adventures’ are all the rage. We also live in an age where it is possible to say that the simple close-to-nature outdoor life is fighting a hard battle against sports promotion, commercialism, computer games and people’s unfamiliarity with and lack of ‘walking experience’. A number of phenomena can be added, the future role of which is somewhat difficult to forecast when it comes to outdoor life, such as contact with nature and place relations. An example of this is the continuing trend for more activities like swimming, climbing and cross-country skiing, previously associated with nature-characterised landscapes, being undertaken in specially constructed indoor settings – not to mention purpose-constructed white water canoeing courses with enormous water pumps and indoor slalom slopes to which snow is transported in juggernauts.

In order to gain a deeper understanding of the Scandinavian context at the intersections of education, democracy and social development, it is important to highlight two themes in Swedish environmental history that relate to experience-oriented nature encounters, namely, the right of public access, and the radical outdoor tradition linked to deep ecology in Norway.

#### *The democratic landscape perspective of the right of public access*

As stated previously, during the interwar period, and parallel to further industrialisation and urbanisation, involvement in tourism and outdoor recreation activities expanded. Less arduous places for tourism were emphasised as a complement to the previous focus on high mountains and small groups of financially better off tourists. During this period, a more formal recognition of the right of public access was an important element of these social efforts – a right that has been fundamental to leisure activities in rural landscapes since the development of outdoor recreation in Sweden. The increase in the numbers of people engaging in such activities led to this becoming a major element in official ambitions with regard to public health and the modern welfare society. In Sweden, the right of public access is laid down in common law and can be regarded as a ‘free space’ between various restrictions, comprised mainly of: (1) economic interests; (2) local people’s privacy; (3) preservation; and (4) the actual use of and changes in the landscape. For example, camping for 24 hours or less is generally allowed, and the traversing of land, lakes or rivers, swimming, and the lighting of fires, are all permitted wherever the restrictions mentioned above are not violated (Sandell 2006).

While guidelines are provided by the Swedish Environmental Protection Agency, even today it is important to note that to all intents and purposes it is ‘the landscape’ that tells you what is or is not allowed; for example, the way the land is being used may indicate how sensitive it is for people walking on it, while the weather tells you whether it is safe to light a camp fire. The basic landscape perspective of the right of public access could therefore be said to integrate a learning process concerning a common and careful use of the natural environment. Or, to use words from a brochure published by the Swedish Environmental Protection Agency entitled *Common sense and the right of public access*: ‘Do not disturb, do not destroy – that is the basic principle of Sweden’s right of public access’. This principle allows for considerate multipurpose use where, for example, forestry, infrastructure, agriculture and dwellings are combined



with leisure, conservation and education. Strong public support is a central democratic aspect – in a random sample investigation of the total adult Swedish population, a total of 96% agreed that defending the right of public access was important (Sandell 2006). While with regard to compulsory education, the right of public access has already been established as an important basis for outdoor education.

*Friluftsliv as a source of inspiration for an alternative society*

So far we have used the term ‘outdoor life’ as a broad translation of the Scandinavian word *friluftsliv* – a well established term in Sweden, Norway and Denmark. According to a recent investigation (Fredman et al. 2008), the public view of the term in Sweden has its core in rural and nature-oriented activities like strolling in the forests or in the high mountain region, kayaking, or bird watching. But, according to this survey, the term also included ‘to some extent’ urban and motorised activities such as walking in an urban park, snowmobiling, or using motorboats. These ‘to some extent’ activities also illustrate how the *friluftsliv* concept can be contested when different groups want to include and exclude different activities for political and pedagogical reasons – as the term generally has a very positive connotation. An example of this interest in linking the term to particular perspectives is that, in the year 2007, two books were published in English with the word *friluftsliv* in their titles: the anthology *Nature first: Outdoor life the friluftsliv way*, edited by Bob Henderson and Nils Vikander (2007), and Roger and Sarah Isberg’s (2007) book, *Simple life ‘friluftsliv’: People meet nature*. It is important to note the extent to which *friluftsliv* in these publications stands for something more profound than physical outdoor activities. And it should also be noted that, in its broadest sense, outdoor life is to be found throughout the entire industrialised world. For example, much of Scandinavian outdoor life is internationally inspired and it has never been limited to only *one* outdoor life tradition, but varies with regard to class, gender, upbringing, etc. At the same time, however, there is obviously something inspiring about Scandinavian experiences linked to educational and political perspectives, closeness to nature, simplicity and the right of public access. These have also been beneficially reflected in Scandinavian outdoor life groupings, even though close-to-nature ideals are also common in many other traditions (Nash 1967/1982; Callicott and Nelson 1998). Here we can speculate about the significance of different background factors in Scandinavia, such as a less feudal history and low population density, as well as links to democratisation and the growth of a welfare society with a high acceptance of the public’s role.

An important point of departure for any understanding of both books using the Scandinavian term *friluftsliv* in English – and given the outdoor life concept’s international potential – is their joint focus on close-to-nature simplicity to afford a social critique of consumer society. Both books have clear links to Norwegian deep ecology/ecosophy (Naess 1973; Reed and Rothenberg 1993) and the radical Swedish outdoor life organisation *Argaladei – Friluftsliv en livsstil* [Argaladei – outdoor life as a life-style] (Waldén 2001), with an emphasis on the intrinsic values linked to outdoor life. If we regard an international use of the concept ‘outdoor life’ and the discussion about specific qualities of a Scandinavian outdoor life tradition as a composite expression of living close-to-nature and simple outdoor life based on a diverse, considerate and long-term use of our common landscape – our environment – then this international interest is both very interesting and very relevant. Torvald Wermelin, the founder of the outdoor life association *Argaladei*, said in the 1960s that:

What we are reacting against is that the standard of living has cheated us. ...If we are dependent on masses of dependencies we lose our freedom. We become defenceless against change – insecure, because we have based our lives on material and commercial values.

Prioritising closeness to nature, simplicity and non-material values in a consumerist industrial-growth society is quite revolutionary, and here the links to Norwegian deep ecology provide a philosophical basis that is significant from an educational perspective. When it comes to democratic aspects though, it is important to see the connections to more radical approaches to sustainable development, such as ‘alternative development’ (Hettne 1994), ‘bio-regionalism’ (Barry 1995) and ‘eco-regional strategy’ (Bahrenberg and Dutkowski 1993), involving an increased ‘capacity of individuals and groups to control their own resources’ (Adams 1990, xiii). Opposition to the industrial growth society (Kvaløy 1987) and interest for the local society in Norwegian deep ecology links the radical outdoor life tradition discussed here with a ‘bottom-up’ perspective of development. In essence, the outdoor life tradition is accompanied by an undercurrent of questioning, counterculture and social critique. Although not a dominant theme in outdoor life, to use Björn Hettne’s (1982) term, this could be seen as a ‘counterpoint’ against the predominant modernisation ‘stream’ of outdoor recreation in general. From the perspective of environmental and sustainability education, it links outdoor life to a very important aspect of sustainable development – whether it is ‘top-down’ or ‘bottom-up’.

To summarise, our argument is that there is an important tension with regard to the pedagogical role of outdoor recreation in the development of a modern industrial society such as Sweden. On the one hand, outdoor recreation and education helps to strengthen prevailing mainstream societal development by improving popular health and the knowledge acquired at school, as well as promoting environmentally friendly behaviour – a perspective that with regard to democracy can largely be seen as a traditional ‘top-down’ perspective. On the other hand, an undercurrent of questioning, counterculture and social critique with regard to the development strategy of modern urban industrial society is linked to the theme of outdoor life for intrinsic value purposes. With regard to the role and framing of our studies of present encounters with nature, this diverse situation has inspired us to get involved in several and very different practical case studies of educationally oriented encounters with nature in order to acquire ‘hands-on’ empirical material, such as that presented in the following section.

### **Three illustrations from current outdoor education practices**

In the previous sections we have highlighted some of the central value-oriented themes relevant to a pluralistic approach to environmental and sustainability education in Swedish and Scandinavian outdoor recreation and outdoor education development. Two specific aspects of this history have been discussed: the democratic view of the landscape associated with the right of public access, and the influence of a politically radical and socially critical outdoor movement. The question that arises in this context is: to what extent and how are these themes expressed in current Swedish educational outdoor practices? In this section we use empirical material from an ongoing multidisciplinary research project on Swedish outdoor education to illustrate this.<sup>4</sup> The aim of the project is to contribute to scientific knowledge about the ethical content of different outdoor educational practices and processes of environmental moral learning in connection with direct encounters with nature. Theories, perspectives and methods



from three fields of research are used in the project, namely, environmental education, environmental ethics and environmental history. The project is divided into two (closely connected) parts. In the first part, analyses of websites, policy documents and textbooks associated with different outdoor education practices have been carried out in order to identify practices that are qualitatively diverse in their educational aims, environmental ethical content, and relation to the landscape. These analyses have led to the selection of three practices for further studies: outdoor education with roots in traditional biology excursions, outdoor activities that aid children's development, and outdoor education connected to the radical outdoor movement.

The practices of the selected outdoor educational activities were studied in the project's second part. In total, the empirical material consists of more than 60 hours of observations and 10 hours of video recordings, most of which have been transcribed. These studies focus on different kinds of situation in which a value dimension in the encounters with nature occurs.<sup>5</sup> We use some of this material here in order to illustrate three possible implications of encounters with nature connected to the studied practices.

The first illustration relates to how encounters between young students and animals can involve spontaneous moral reactions of care for living beings. The second illustration is about the way in which nature can be integrated with the human life world through regular activities in the local landscape. Third and finally, we illustrate how carefully reflected outdoor life can function as a source of inspiration for ethical reflections about modern Western lifestyles, social critique, and the call for change. It is not our intention to claim that these outdoor practices have certain effects on, for example, the participants' environmental commitment. Rather our purpose is to point to certain meanings of encounters with nature within the framework of these practices.

### *Outdoor education with roots in traditional biology excursions*

Activities rooted in the excursion and ranger traditions form the basis of Sweden's 70 or so Outdoor Education Centres. These centres are open to ordinary school classes, primarily at primary and secondary levels. In most cases students visit the centre for one day. Although some of the centres are privately run and some are municipal, they are all organised in accordance with common educational guidelines. According to these guidelines the main aim of the centres is to provide opportunities for students to learn basic ecology and to encourage positive attitudes towards nature through direct experience. An overriding purpose is thus to strengthen students' environmental commitment.

The design of the observed activities of this practice can be seen as an expression of a way of acting towards and talking about nature that belongs to a scientific discourse. The children are expected to act like scientists and, by means of their investigations, observations and field guides, name the species and find out what the animals eat, what kinds of 'enemies' they have, and how they are adapted to their environment. In relation to these activities, the teacher often talks about nature in general terms and uses scientific concepts and models – an objective language in which personal preferences, emotional expressions, and things specific to the experiences of the situation are avoided.

Within environmental education research, several scholars have criticised the traditional scientific approach of disconnecting humans from nature and thereby oppose the purposes of such an environmental education (Littledyke 1996; Gough

1999; Ashley 2000; Bowers 2001; Öhman 2006). However, several cases of the reverse have been observed in the empirical material, namely a substantial identification with the living beings of nature. One example of this was recorded when a class of primary-school children were catching small animals in a stream and putting them in trays and cans for further investigation – a common activity of the Outdoor Education Centres. In this case we observed that many of the groups ‘adopted’ some of the animals caught and gave them names. When they talked about ‘their’ animals they used lots of emotional and aesthetic expressions. Their emotional commitment was obvious; particularly so when one of the group’s animals, a salamander, appeared to be dying and the group decided to put it back in the water:

Boy: Carefully...  
 Girl: ‘Bye, ‘bye! [They tip the salamander out]  
 Boy: Is it out?  
 Boy: YES!  
 Boy: I can’t see it...  
 Boy: ...there [points to the water]  
 Girl: No it’s dead...  
 Boy: No, it’s alright, it’s alright, it’s swimming.  
 Boy: No –  
 Boy: – Yes –  
 Boy: – Yes, it’s swimming.  
 Boy: It’s a bit like animal cruelty  
 Girl: He did like this [raises her hands in the air]. He was terrified [the salamander].  
 Boy: It’ll survive.  
 Teacher: Is it alive?  
 Boy: YES!!

This sequence indicates a strong feeling of care and responsibility for the creature and can be seen as an example of a moral reaction – a spontaneous feeling of care – in the encounter between the children and the animal (Öhman and Östman 2008; see also Östman this issue). Thus, direct encounters with nature can lead to a possible identification with animals and result in students paying particular attention to their needs. In this way, outdoor activities can generate situations in which personal moral relations to nature are created. The long-term aspects of these relations, and the way they might be generalised by the participants, are much more difficult to predict, however. The point here is that direct encounters with nature involve the potential of such experiences (even though the specific activity may have an apparent scientific character).

### ***Outdoor activities as a means for children’s development***

The idea of using outdoor activities as a means for children’s development is essential for ‘all weather’ outdoor schools (*Ur och Skur -skolor* in Swedish). Although these schools are economically autonomous, they adopt the specified teaching methods of Sweden’s largest outdoor organisation, the National Association for the Promotion of Outdoor Life (*Friluftsförbundet*) – methods that were developed during voluntary recreational work with small groups of children in the mid 1950s and onwards. Since the mid 1980s, these methods have also been established in some 90 primary and secondary schools all over Sweden. The schools follow the ordinary curriculum but use nature as the basis for children’s physical, emotional, social and intellectual development. The

natural environment around the school and in the local neighbourhood thus forms the primary classroom for many school subjects.

What we would like to highlight here is the educational implications of carrying out daily outdoor activities in the same places for several years. During our study of the 'all weather' outdoor schools in Sweden we observed diverse activities in varying weather conditions, such as skiing in temperatures of  $-20^{\circ}\text{C}$  in the winter, studying lichens and ferns in the autumn rain, and doing outdoor crafts on a sunny spring day. In our observations of both the organised and non-organised activities, nature appeared as a natural part of students' everyday lives and something entwined with their ordinary activities. This integration is not simply based on a rational insight of ecological interdependence, but is rather a bodily, experienced interconnection established through the habit of working and playing out-of-doors.

This habit appears to be both a practical and a moral habit. We noticed that the students knew immediately what to do, how to behave, what to pay attention to, and how to make working and playing outdoors comfortable and fun. In our observations we never saw the teachers give the students instructions as to how to treat plants and animals in the various activities. We never saw a teacher reprimanding a student either. As far as we could determine, the students always treated their environment with care and respect. Apparently, teachers and students spend enough time together in a natural environment to facilitate a socialisation in which specific attitudes towards nature and certain norms become established.

An important implication of this is that, within this practice, nature is not a place or phenomenon that is separated from the human world. It is not just 'another place' that you occasionally visit or observe through the media, but is an aspect of 'everyday life' to be experienced and integrated. In this way, rights and duties in relation to the natural environment and to nature seem to develop as an integrated part of the students' approach to nature.

Whether these norms and integration of nature continue to function as guiding principles outside the confines of school is an open question. However, a number of scholars have claimed that environmental attitudes developed in early years tend to be permanent and constitute one of the most important factors in the development of environmental commitment (Tanner 1980; Palmer 1993; Wilson 1996; Place 2004).

### ***Outdoor education connected to the radical outdoor movement***

The third practice – outdoor education connected to the radical outdoor movement – is differentiated from the previously mentioned practices in that it is aimed at adults and based on experiences of an outdoor life (*friluftsliv*) in which close encounters with the natural environment form the core of the activities. In other words, it is not extraordinary sensations, spectacular experiences, adventures or risks that are called for, but an 'everyday' life in nature. Another characteristic is that this kind of outdoor life is not simply an isolated activity, but an entire lifestyle. Longer journeys on foot, skis or in canoes, where the participants plan and choose the degree of difficulty themselves within certain frames and guidelines, are an important part of this kind of outdoor pedagogy. A fundamental idea of the specific kind of 'mentor pedagogy' that is used and taught is that the outdoor group learns experientially through the demands and implications of a life lived out-of-doors (Isberg 1991, 2002; Isberg and Isberg 2007). The deep ecology perspective is an important source of inspiration, and outdoor mentoring is seen as a way of spreading the values in line with this philosophy (Reed

and Rothenberg 1993). Accordingly, an important purpose is to use outdoor life as a source of inspiration for ethical reflections about modern Western lifestyles, and to encourage social critique and a call for change.

In order to illustrate this possible implication of outdoor life we turn to material collected at a Scandinavian folk high school offering guided courses in close to nature outdoor life. The 'Simple Life—Leadership—Handicraft' course consists of one year of full-time studies with the possibility of an extra additional year. In the context of the research project, a group of four female students were accompanied on a journey undertaken in the context of the course, and their activities and conversations were documented by means of video-recordings and field-notes. The trip took place in mid-November, in a snowy landscape in a forested area of central Sweden. The task was to undertake a five-day hike without tents or stoves, and only using very basic equipment.

On one occasion the group of girls made camp for the night and gathered around a makeshift campfire. While the snow fell silently around them the following conversation took place:

- Lena: Yes but it's always the same old story. Haven't folk always said, kind of, oh shit and now that petrol's gone up to nine kronor per whatnot, per litre, nobody will be able to afford to drive around anymore, and then it goes up to nine and everyone carries on as normal.
- Maria: Yeah.
- Lena: And then it goes up to ten kronor, and then eleven, but still nobody actually gives up...
- Maria: But I mean if I was to buy a new car today, even if I could afford a *new* car, which is doubtful, there's absolutely no chance that I'd buy a petrol car.
- Lena: No, absolutely not.
- Maria: I only hope that other people think the same.

The aim of this short episode is to indicate how outdoor life can provide opportunities for critical reflection on the consumption and habits of ordinary life. Several similar events were observed both during the trip and in the retrospective discussions. However, it is likely that such ethical reflections are dependent on the context of the outdoor practice as a whole. In the case of this folk high school, the outdoor activities are generally performed with a high degree of ethical awareness. They strive to use equipment with as low an impact on nature as possible by, for example, making their own gear from organic materials, preparing their own vegetarian food, and using campfires instead of fossil-fuelled camping stoves. The quest to use as little and as simple equipment as possible and avoid high-tech gear can also be seen as a political statement in the sense of a search for alternatives to the materialistic values of contemporary society. A civilisation critique can thus be seen as an inherent ingredient in this outdoor discourse.

These characteristics closely connect this outdoor life to the intrinsic value motives referred to in the environmental history outlined earlier. Here, outdoor life is not just a means for or the achievement of something that comes after a journey and is separate from the outdoor life experience (e.g., learning ecological knowledge, gaining environmental awareness, improving one's health, and so on). The value dimension of outdoor life is rather an aim in itself – the alternative values you experience while living an outdoor life contrast with the driving forces of modern urban life. This focus not only allows for an identification with specific animals (as seen in the illustration from the Outdoor Education Centre), but more generally with nature as

a complex, living whole – the environment – including Man and ‘Culture’. Or, to borrow words from the Norwegian discussion: ‘Nature: The True Home of Culture’ (Dahle n.d.).

### **Educational potentials of encounters with nature**

Using the environmental history of outdoor life and our case study illustrations presented previously, we will now, in this final part, return to our main question and discuss the educational potentials of encounters with nature in a pluralistic approach to environmental or sustainability education. Our purpose is to point to the *potential* values embedded in nature experiences and how they can widen the scope of an environmental or sustainability education by affording nature a place of importance in our judgements. By this we mean that direct encounters with nature could have several important democratic implications, here summarised in six themes. These themes are inspired by our studies of perspectives and experiences developed in Swedish outdoor education in accordance with the environmental history outlined earlier and the three case studies presented in the previous section. But of course, the arguments for the potential of direct encounters with nature in relation to a pluralistic approach to environmental or sustainability education are not limited to a Swedish or Scandinavian context, even though this is our frame of reference here. Neither do we argue that direct encounters with nature lead to a ‘right’ or even a predictable judgement with regard to sustainable development. What we do argue for, however, is the *potential* of a broadened and deepened context for sustainability decisions as a result of direct encounters with nature.

### ***An experience-based meaning of nature***

In outdoor education nature can acquire meanings that are different from our scientific understanding of natural phenomena. Relations could be built and meaning-making established in spite of educational contexts rooted in other traditions – therefore broadening the contextual basis for sustainability reflections. Dewey (1929/1958) points out that scientific meaning-making differs from that of the everyday in that scientific descriptions are divorced from those doing the investigating and only concern relationships between things. If, for example, we want to find out the temperature of the water in a lake in a scientific way we use a thermometer and read off the number of degrees as a relation between the water and the mercury column. In a more everyday situation we might put our hand in the water and on the basis of our experience and purpose (e.g., whether we are going to drink the water or bathe in it) decide how warm or cold it is. Everyday meaning thus involves an experiencing human being and a relation to the surroundings. The examined is, therefore, not reduced to mere facts, but also has an aesthetic, moral, practical or emotional content (Biesta and Burbules 2003). We maintain that outdoor activities can give rise to such sensual and experienced-based meanings about nature and, therefore, could form an important complement to scientific descriptions (cf. Bonnett 2007).

### ***A relational ethical perspective***

Environmental ethics are traditionally value-oriented and deal with rational principles in order to weigh the different values against each other (Zimmerman 1993); for

example, whether nature has an intrinsic value as well as an instrumental value. This, some claim, makes it insensitive to personal, situational and contextual aspects of our moral relationship with nature and several alternatives to value-oriented ethics have been developed, such as deep ecology (Naess 1973; Reed and Rothenberg 1993) and ecofeminism (Warren 1996, Kronlid 2003). These alternatives are based on a *relational* perspective, where people's emotional and spiritual *experiences* constitute the basis of ethical reflections (Kronlid and Svennbeck 2008). A 'deeper' ecology that acknowledges connections between the self, other species and the landscape (Naess 1973) takes a relational view of humanity/nature in which encounters with 'the open air' and identification with non-humans are accentuated. The experiences that people have in a direct encounter with nature can play a decisive role in the development of complements to value-oriented environmental ethics and an understanding of the relational perspective. Also, an established fact from the environmental history of outdoor recreation referred to earlier is that the more radical tradition has parallels with 'another' (Nerfin 1977) or 'alternative' (Hettne 1994) development perspective and to the use of direct encounters with nature as a pedagogical tool and inspiration for this. While we do not claim that this also involves a proven causality, we do argue for the importance of not taking the risk of limiting the arsenals available for environmental or sustainability education and overlook a possible linkage to a broader spectrum of development.

#### ***Adding a fourth perspective to sustainable development***

Education for sustainable development, as the most common form of sustainability education in Sweden for example, is often claimed to imply a broadening of environmental education in that it not only involves ecological, but also economic and social aspects. Many have criticised the sustainable development concept however, and argue that it is an ideological concept associated with Western ideas of modernity – the same ideas that are said to have given rise to the problematic environmental situation we are facing today (Elliott 1999; Sauvé 1999; Jickling and Wals 2007). Some of this criticism has to do with the fact that by its very definition,<sup>6</sup> sustainable development takes an anthropocentric standpoint and tends to overlook non-human creatures' well-being, values and rights (Bonnett 1999, 2007; Stenmark 2002). However, if we regard education for sustainable development as something that is constantly developing and the content constantly changing as a result of discussions about the concept, then nature encounters can play an important role in this development by adding a fourth perspective to sustainable development. This fourth dimension is not ecological, economic or social, but is rather a comprehensive existential perspective that originates from aesthetic and emotional relations with nature – the direct encounter with nature. Moreover, in the development of a future 'sustainability ethic' this perspective can be an important corrective and reminder that caring about nature is not only a matter of future human generations' comfort and lifestyle.

#### ***Human ecology in practice***

Another aspect of outdoor experiences is the historical reconnection of humans to the natural environment that such experiences can be said to represent. By this we refer to the historical fact that humans have gradually been separated from the natural environment both practically and mentally (Sandell, Öhman, and Östman 2005). Little



more than a hundred or so years ago the majority of people in Sweden and other western European countries literally got their hands dirty and experienced human dependence on nature with their own senses on a daily basis. Today very few people have such direct contact with nature through their work. Although we are still just as dependent on nature for food, water, energy and materials as we were a century or so ago, this dependence is largely invisible to us. Connections with nature come, so to speak, ‘through the wall’ (Brügge, Glantz, and Sandell 2007); i.e., through cables, wires and pipes that supply us with energy and resources and take care of our waste. An important aspect of environmental and sustainability education in general is the reminder of this basic human ecological interconnectedness, albeit with the aid of literature, film and verbal information about examples and historical references. In contrast, the outdoor life and outdoor education provide some of the few possibilities we have in a modern urban society to really experience human interconnection with the natural environment (Louv 2008).

### *Sensing the quality of a simple life*

Based on the environmental history of outdoor life discussions in both Sweden and internationally and illustrated by the case study of a radical Scandinavian outdoor life tradition, we argue that outdoor life can play an important ideological role by offering a position from which everyday life, modern lifestyles and social development can be critically considered. It can serve as a reminder that, after satisfying certain basic needs, there is no direct connection between material standards, happiness and quality of life, but that this is often related to other values. This position is based on the outdoor life as an alternative value-experience that could be summarised as a ‘rich life of simple means’ – a life in which meaningfulness, quality and joy are not linked to consumption, material standards or economic rewards but to physical and mental freedom, spontaneity, community and an experience of nature (Faarlund 1990; Brügge, Glantz, and Sandell 2007; Tordsson 2003; Isberg and Isberg 2007; Henderson and Vikander 2007). Such a value-experience demands an outdoor life pedagogy that is both consciously and consistently applied. This means first of all focusing on the intrinsic values of the outdoor life so that it does not *just* become an instrument for more effective and efficient teaching, improved health, team-building, or such like. Secondly, that the outdoor life is characterised by simplicity, which in effect means that a material and high-tech mentality are not allowed to dominate and block the nature encounter. Thirdly, that the outdoor life does not become an environmental burden in itself, but that qualities like closeness to nature, recyclable and organic, serve as guiding principles when choosing transport and materials.

### *Democracy, identity and dwelling*

A modern Western industrial society is highly mobile in terms of tourism, commuting and the media (McIntyre, Williams, and McHugh 2006). For children and young people, modern life’s transportation between home, school and various recreational and consumer sites is both obvious and tangible, likewise the continuous (remote) presence of other places and people via television, mobile phones and the internet. It could be said that in many respects our modern society gives an impression of being ‘place-less’ and free in relation to the earth’s surface (Massey and Jess 1995). But the environment, environmental relations and inter-linkages always take place somewhere. Our

territorial interdependence is a basic element in all sustainability discussions – and here the outdoor life could serve as a very important reminder. We might also reflect on the deeper linkages between sustainable development, mobility and a sense of place and put forward the landscape perspective of the Swedish right of public access (Sandell 2007). The basic principles of this can be regarded as the antithesis of modern society's specialised landscape use, with places set aside for education, housing, infrastructure, recreation, and so on. A tangible experience of the necessity of 'reading the landscape' in order to determine the right thing to do in relation to plants, animals and other people's enjoyment in the same landscape can be an important complement to, for example, book-based knowledge about an ecosystem and about social planning. In this context, the right of public access in terms of multipurpose common landscape use could be seen as a potential linkage to other policy discussions, both with regard to the 'commons' and as something very relevant to sustainable development (Goldsmith 1992; Snyder 1995; Dolsak and Ostrom 2003).

### *Final remarks – the concept of nature revisited*

In the perspective presented previously, nature encounters do not only appear as matters of personal freedom, health and quality of life, but also have considerable democratic importance in that they can contribute to a wider and more nuanced debate about the environment and sustainable development. There is, therefore, every reason to consider the integration of an outdoor pedagogy in the curriculum – 'national' or otherwise.<sup>7</sup> But if the qualities of the encounters with nature we have highlighted here are to be taken seriously and developed in an educational context, a deepened perception of what nature is and entails is essential. What we are looking for – and argue could be promoted by tangible encounters with nature – is a situated and dynamic concept of nature rather than a static concept where nature is understood as a certain place or as specific organisms. Such a concept of nature is not viewed as something separate from the human world, but as an aspect of most of our everyday life experiences. Nature is accordingly understood as the *uncontrollable aspect of the processes that create our world* – ranging from the law of gravity to the mould on the cheese in the fridge (Sandell 1988). Such a nature concept implies that different landscapes – environments – will always be characterised by nature to some degree or other. Although this is naturally much more obvious in an old forest than in a shopping centre, nature is nevertheless always present in the different situations of our life. An important consequence of this is that nature's presence can be experienced in all these environments, and that a central pedagogical point of offering students experiences in a 'free' or 'wild' environment is to make this aspect of nature's presence both continuous and obvious.

A development of educational activity that integrates the encounter with nature naturally demands more knowledge and continued research. From both the studies referred to here and from other studies we have been able to acquire good qualitative data as to how connections with nature can be created during outdoor activities. However, we know very little about the continuity of this learning and the extent to which outdoor experiences constitute a resource in discussions about environmental and sustainable issues in other contexts: whether a strong attachment to the local environment also creates a strong environmental commitment in general; whether a concern for nature also leads to a concern for social and economic sustainable issues; or whether norms that are learned and followed in one community also function as

guiding principles when participating in other social groups. It is clear that much more research is necessary here. A further example of wider research needs concerns today's mobile society and the consequences of further globalisation involving, for instance, an increase in electronic communication and, with regard to place-related environmental perspectives, the growth in the proportion of, for example, the Swedish population with a background in other countries.

We are of course fully aware that experiences of encounters with nature are culturally filtered and to some people direct encounters with nature could have negative associations. Also, and linked to this, we are aware that there is no general causality between encounters with nature and environmental commitments. However, we are confident that, based on the environmental history of outdoor life in Scandinavia for example, and illustrated by empirical findings in the case-studies presented, there is reason to believe that encounters with nature have the *potential* to play a vital role in a pluralistic approach to environmental and sustainability education.

### Acknowledgements

Research for this article was carried out within the project 'Encounters with Nature and Environmental Moral Learning' supported by grants from the Swedish Research Council and the research programme 'Outdoor Recreation in Change' supported by grants from the Swedish Environmental Protection Agency.

### Notes

1. The concept of education for sustainable development can be seen as one way of dealing with the complexity of environmental and sustainability issues. Significant for this concept is that social and economic development is taken into account in the quest for ecological sustainability (United Nations Educational, Scientific and Cultural Organization [UNESCO] 2005). Here we do not intend to adopt a position that is either for or against the concept of education for sustainable development, but rather point out that there is an ongoing debate in which the concept is exposed to both criticism and re-interpretation. In this paper we refer to education that deals with questions concerning the environment and societal development at both local and global levels as 'environmental and sustainability education'.
2. Examples of other Swedish researchers who have included aspects of direct encounters with nature in a context of outdoor education are: Helldén (1992), Dahlgren and Szczepanski (1998), Grahn et al. (1997), Gelter (2000), Sundberg and Öhman (2008), Rantatalo (2002), Rantatalo and Åkerberg (2002), Tordsson (2003), Lundegård, Wickman and Wohlin (2004), Åkerblom (2005), Arnegård (2006), Magntorn (2007) and Backman (2008).
3. Research projects on which the article is based include: Outdoor Life and Environmentalism (financed by the Swedish Council for Planning and Coordination of Research); Image of, and Common Access to, Landscapes for Outdoor Recreation (financed by the Swedish Council for Planning and Coordination of Research); Landscape as Arena (financed by The Bank of Sweden Tercentenary Foundation); Sustainable Development and Environmental Moral Learning (financed by the Swedish Research Council); Outdoor Recreation in Change (financed by the Swedish Environmental Protection Agency).
4. The project, entitled Sustainable Development and Environmental Moral Learning, is led by Leif Östman from Uppsala University and is financed by the Swedish Research Council.
5. More specifically, a typology is used that describes three different ways in which morals appear in educational practice: moral reactions, moral norms and ethical reflections (Öhman and Östman 2008).
6. The often-quoted definition of sustainable development can be found in the so-called Brundtland Commission's report of 1987, in which sustainable development is described as 'development that meets the needs of the present generation without compromising the

ability of future generation to meet their own needs' (World Commission on Environment and Development 1987, 43).

7. In Sweden, as in Norway and Denmark, outdoor recreation is a compulsory element of physical education in nine-year compulsory education.

### Notes on contributors

Klas Sandell is Professor in Human Geography at the Department of Geography and Tourism, Karlstad University, and guest Professor at the Department of Educational Science in Arts and Professions, Stockholm University, in Sweden. His research focus is the interrelationship between development strategies, environmental concerns and human relation with 'nature' (in terms of landscape, views and practices), especially with regard to outdoor recreation, public access and nature-based tourism and he has (co)published and (co)edited a number of scientific and popular science articles, book chapters and textbooks. He has also worked as a teacher in outdoor recreation.

Johan Öhman is a postdoctoral researcher at the School of Humanities, Education and Social Sciences, at Örebro University, Sweden. He is one of the founders of the Institute for Research in Education and Sustainable Development (IRESD). His area of research is in environmental ethics and democratic issues within the sphere of education in education for sustainable development, environmental education and outdoor education. He is the author of several textbooks and articles on the subjects of environmental and development education and is currently directing the multidisciplinary research project 'Implementation of education for sustainable development: the relation between the norm supportive structures and student's moral learning'.

### References

- Adams, W.M. 1990. *Green development: Environment and sustainability in the third world*. London: Routledge.
- Åkerblom, P. 2005. *Lära av trädgård. Pedagogiska, historiska och kommunikativa förutsättningar för skolträdgårdsverksamhet [Learning by gardening. Educational, historical and communicative conditions for school gardens]*. PhD diss., University of Agricultural Sciences, Sweden.
- Arnegård, J. 2006. *Upplevelser och lärande i äventyrssport och skola*. PhD diss. Stockholm, Stockholm Institute of Education.
- Ashley, M. 2000. Science: An unreliable friend to environmental education? *Environmental Education Research* 6, no. 3: 269–81.
- Backman, E. 2008. What is valued in *friluftsliv* within PE teacher education? – Swedish PE teacher educators' thoughts about *friluftsliv* analysed through the perspective of Pierre Bourdieu. *Sport, Education and Society* 13, no. 1: 61–76.
- Bahrenberg, G., and M. Dutkowski. 1993. An ecoregional strategy towards a fault-tolerant human–environment relationship. In *Human ecology: Fragments of anti-fragmentary views of the world*, ed. D. Steiner, and M. Nauser, 285–95. London: Routledge.
- Barry, D. 1995. Looking for home: Bioregionalism and the reinhabitation of America. *Trumpeter* 12, no. 2: 79–83.
- Biesta, G., and N. Burbules. 2003. *Pragmatism and educational research*. Lanham, MD: Rowman and Littlefield.
- Boken om friluftslif: Upplysningar, råd och skildringar*. 1910. Stockholm, Sweden: Wilh. Siléns Bokförlags Aktiebolag.
- Bonnett, M. 1999. Education for sustainable development: A coherent philosophy for environmental education? *Cambridge Journal of Education* 29, no. 3: 313–24.
- Bonnett, M. 2007. Environmental education and the issue of nature. *Journal of Curriculum Studies* 39, no. 6: 707–21.
- Bowers, C. 2001. How language limits our understanding of environmental education. *Environmental Education Research* 7, no. 2: 141–52.
- Bradley, J.C. 1999. Relationship between environmental knowledge and environmental attitude of high school students. *Journal of Environmental Education* 30, no. 3: 17–22.

- Brügge, B., M. Glantz, and K. Sandell, eds. 2007. *Friluftslivets pedagogik: För kunskap, känsla och livskvalitet*. Stockholm, Sweden: Liber.
- Callicott, J.B., and M.P. Nelson, eds. 1998. *The great new wilderness debate*. Athens, Greece: The University of Georgia Press.
- Cornell, J. 1989. *Sharing the joy of nature: Nature activities for all ages*. Nevada City, CA: Dawn Publications.
- Dahlgren, L.O., and A. Szczepanski. 1998. *Outdoor education: Literary education and sensory experience – an attempt at defining the identity of outdoor education*. Linköping, Sweden: Linköping University.
- Dahle, B., ed. n.d. *Nature: The true home of culture*. Oslo, Norway: The Norwegian University of Sports and Physical Education.
- Dewey, J. 1929/1958. *Experience and nature*. New York: Dover.
- Dolsak, N., and E. Ostrom, eds. 2003. *The commons in the new millennium: Challenges and adaptation*. Cambridge, MA: The MIT Press.
- Elliott, J. 1999. Sustainable society and environmental education: Future perspectives and demands for the educational system. *Cambridge Journal of Education* 29, no. 3: 325–41.
- Faarlund, N. 1990. Om mötet med fri natur som metode i miljöundervisningen. *Mestrefjellet* 37: 21–3.
- Fredman, P., S.-E. Karlsson, U. Romild, and K. Sandell, eds. 2008. Vad är friluftsliv? Delresultat från en nationell enkät om friluftsliv och naturturism i Sverige. Report No. 4, research program: 'Outdoor Recreation in Change', Östersund, Sweden.
- Gelter, H. 2000. Friluftsliv: The Scandinavian philosophy of outdoor life. *Canadian Journal of Environmental Education* 5: 77–92.
- Goldsmith, Z. 1992. Whose common future? Special issue, *The Ecologist* 22, no. 4.
- Gough, A. 1999. Recognising women in environmental education pedagogy and research: Toward an ecofeminist poststructuralist perspective. *Environmental Education Research* 5, no. 2: 143–63.
- Government Directives. 2002. En samlad naturvårdspolitik. Regeringens skrivelse No. 2001/02:173, Stockholm, Sweden.
- Grahn, P., F. Mårtensson, B. Lindblad, P. Nilsson, and A. Ekman. 1997. Ute på dagis: Hur använder barn daghemsgården? Utformningen av daghemsgården och dess betydelse för lek, motorik och koncentrationsförmåga. *Stad and Land* 145.
- Hammerman, D. R., W.M. Hammerman, and E.L. Hammerman. 2001. *Teaching in the outdoors*. Danville, IL: Interstate Publishers.
- Helldén, G.F. 1992. *Grundskoleelevers förståelse av ekologiska processer*. PhD diss., Stockholm, AWE International.
- Henderson, B., and N. Vikander, eds. 2007. *Nature first: Outdoor life the friluftsliv way*. Toronto, Canada: Natural Heritage Books.
- Hettne, B. 1982. Strömfåra och kontrapunkt i västerländsk utvecklingdebatt. Naturresurs- och miljökommittens bakgrundsrapport No. 8, Stockholm, Sweden.
- Hettne, B. 1994. The future of development studies. *Forum for Development Studies* 1–2: 41–71.
- Isberg, R. 1991. *Färd: Möte – människa – natur*. Krylbo, Sweden: Sjöviks folkhögskola.
- Isberg, R. 2002. *Enkelt friluftsliv: Gamla vildmarksknep*. Krylbo, Sweden: Sjöviks folkhögskola.
- Isberg, R., and S. Isberg. 2007. *Simple life 'friluftsliv': People meet nature*. Victoria, Canada: Trafford Publishing.
- Jickling, B., and A.E.J. Wals. 2007. Globalization and environmental education: Looking beyond sustainable development. *Journal of Curriculum Studies* 40, no. 1: 1–21.
- Kronlid, D. 2003. *Ecofeminism and environmental ethics. An analysis of ecofeminist ethical theory*. Uppsala, Sweden: Uppsala University.
- Kronlid, D., and M. Svennbeck. 2008. Conditions for environmental ethical reflection in the subject of Religion. In *Values and democracy in education for sustainable development: Contributions from Swedish research*, ed. J. Öhman, 33–56. Malmö, Sweden: Liber.
- Kvaløy, S. 1987. Norwegian ecophilosophy and ecopolitics and their influence from Buddhism. In *Buddhist perspectives on the ecocrisis*, ed. K. Sandell, 49–72. Kandy, Sri Lanka: Buddhist Publication Society.
- Littlebyke, M. 1996. Science education for environmental awareness in a postmodern world. *Environmental Education Research* 2, no. 2: 197–215.



- Louv, R. 2008. *Last child in the woods: Saving our children from nature-deficit disorder*. Chapel Hill, NC: Algonquin Books of Chapel Hill.
- Lundegård, I., P.O. Wickman, and A. Wohlin, eds. 2004. *Utomhusdidaktik*. Lund, Sweden: Studentlitteratur.
- Magntorn, O. 2007. Reading nature. Developing ecological literacy through teaching. PhD diss., Norrköping University.
- Massey, D., and P. Jess, eds. 1995. *A place in the world? Places, cultures and globalization*. Oxford, UK: The Open University.
- McIntyre, N., D.R. Williams, and K.E. McHugh, eds. 2006. *Multiple dwelling and tourism: Negotiating place, home and identity*. Wallingford, UK: CABI Publishing.
- Naess, A. 1973. The shallow and the deep, long-range ecology movement: A summary. *Inquiry* 16: 95–100.
- Nash, R. 1967/1982. *Wilderness and the American mind*. 3rd ed. New Haven, CT: Yale University Press.
- Nerfin, M., ed. 1977. *Another development: Approaches and strategies*. Uppsala, Sweden: Dag Hammarskjöld Foundation.
- Öhman, J. 2003. Miljödidaktisk forskning och selektiva traditioner i skolans miljöundervisning – en jämförelse. In *Nationell och internationell miljödidaktisk forskning. En forskningsöversikt*, ed. L. Östman, 97–109. Uppsala, Sweden: Uppsala University.
- Öhman, J. 2004. Moral perspectives in selective traditions of environmental education: Conditions for environmental moral meaning-making and students' constitution as democratic citizens. In *Learning to change our world? Swedish research on education and sustainable development*, ed. P. Wickenberg, H. Axelsson, L. Fritzén, G. Helldén, and J. Öhman, 33–57. Lund, Sweden: Studentlitteratur.
- Öhman, J. 2006. Pluralism and criticism in environmental and sustainable education. *Environmental Education Research* 12, no. 2: 149–63.
- Öhman, J. 2008. Environmental ethics and democratic responsibility: A pluralistic approach to ESD. In *Values and democracy in education for sustainable development: Contributions from Swedish research*, ed. J. Öhman, 17–32. Malmö, Sweden: Liber.
- Öhman, J., and L. Östman. 2008. Clarifying the ethical tendency in education for sustainable development practice: A Wittgenstein-inspired approach. *Canadian Journal of Environmental Education* 13, no. 1: 57–72.
- Palmer, J. A. 1993. Development of concern for the environment and formative experiences of educators. *Journal of Environmental Education* 24, no. 3: 26–30.
- Place, G. 2004. Youth recreation leads to adult conservation. *National Recreation and Park Association* 39, no. 2: 29–36.
- Rantatalo, P. 2002. *Den resande eleven: Folkskolans skolreserörelse 1890–1940*. Umeå, Sweden: Umeå University, Skrifter från forskningsprogrammet Landskapet som arena.
- Rantatalo, P., and S. Åkerberg. 2002. 'Ansikte mot ansikte med de verkliga tingen' – Folkskolans åskådningsundervisning, Skansen och den nya nationalismen. *Lychnos: Årsbok 2001 för idé- och lärdomshistoria* 2001: 7–40.
- Reed, P., and D. Rothenberg, eds. 1993. *Wisdom in the open air: The Norwegian roots of deep ecology*. Minneapolis, MN: University of Minnesota Press.
- Rickinson, M., J. Dillon, K. Teamey, K. Morris, M.Y. Choi, D. Sandres, and P. Benefield. 2004. *A review on outdoor learning*. Shrewsbury, UK: Field Studies Council/National Foundation for Educational Research.
- Sandell, K. 1988. Ecostrategies in theory and practice: Farmers' perspectives on water, nutrients and sustainability in low-resource agriculture in the dry zone of Sri Lanka. PhD diss., Linköping University.
- Sandell, K. 2006. The right of public access: Potentials and challenges for ecotourism. In *Ecotourism in Scandinavia: Lessons in theory and practice*, ed. S. Gössling and J. Hultman, 98–112. Wallingford, UK: CABI.
- Sandell, K. 2007. The right of public access: The landscape perspective of friluftsliv. In: *Nature first: Outdoor life the friluftsliv way*, ed. B. Henderson and N. Vikander, 90–99. Toronto, Canada: Natural Heritage Books.
- Sandell, K., J. Öhman, and L. Östman. 2005. *Education for sustainable development: Nature, school and democracy*. Lund, Sweden: Studentlitteratur.



- Sandell, K., and S. Sörlin, eds. 2008. *Friluftshistoria – från 'hårdande friluftsliv' till ekoturism och miljöpedagogik: Teman i det svenska friluftslivets historia*. Stockholm, Sweden: Carlssons bokförlag.
- Sauvé, L. 1999. Environmental education between modernity and postmodernity. Searching for an integrating educational framework. *Canadian Journal of Environmental Education* 4: 9–36.
- Schindler, F.H. 1999. Development of the survey of environmental issue attitudes. *Journal of Environmental Education* 30, no. 3: 12–17.
- Snyder, G. 1995. Ecology, place, and the awakening of compassion. In *The deep ecology movement*, ed. L. Drengson, and Y. Inoue, 237–42. Berkeley, CA: North Atlantic Books.
- Stenmark, M. 2002. *Environmental ethics and policy-making*. Aldershot, UK: Ashgate.
- Sund, P. 2008. Discerning the extras in ESD teaching: A democratic issue. In *Values and democracy in education for sustainable development: Contributions from Swedish research*, ed. J. Öhman, 56–74. Malmö, Sweden: Liber.
- Sundberg, M., and J. Öhman. 2008. Hälsa och livskvalitet. In *Friluftshistoria – från 'hårdande friluftsliv' till ekoturism och miljöpedagogik: Teman i det svenska friluftslivets historia*, ed. K. Sandell, and S. Sörlin, 102–17. Stockholm, Sweden: Carlssons bokförlag.
- Tanner, T. 1980. Significant life experiences: A new research area in environmental education. *Journal of Environmental Education* 11, no. 4: 20–24.
- Tordsson, B. 2003. Å svare på naturens åpne tiltale: En undersøkelse av meningsdimensjoner i norsk friluftsliv på 1900-tallet og en drøftelse av friluftsliv som sosiokulturellt fenomen. PhD diss., Norges Idrettshøgskole, Oslo.
- UNESCO. 2005. United Nations Decade of Education for Sustainable Development 2005–2014: International implementation scheme. <http://www.unesco.org/en/esd/publications>.
- Waldén, G., ed. 2001. *Argaladei: En otrolig historia*. Stockholm, Sweden: Föreningen Argaladei.
- Warren, K. J., ed. 1996. *Ecological feminist philosophies*. Bloomington, IN: Indiana University Press.
- Wilson, R. 1996. Environmental education programs for preschool children. *Journal of Environmental Education* 27, no. 4: 28–34.
- World Commission on Environment and Development. 1987. *Our common future*. Oxford, UK: Oxford University Press.
- Zachrisson, A., K. Sandell, P. Fredman, and K. Eckerberg. 2006. Tourism and protected areas: Motives, actors and processes. *International Journal of Biodiversity Science and Management* 2, no. 4: 350–58.
- Zimmerman, M.E., ed. 1993. *Environmental philosophy. From animal rights to radical ecology*. Englewood Cliffs, NJ: Prentice Hall.