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WILD ADVENTURE SPACE FOR YOUNG PEOPLE

Document WASYP 1
LITERATURE REVIEW – SURVEY OF FINDINGS

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Prepared for the Countryside Agency, English Nature and Rural Development Service

by

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1. Literature Review

This review follows the best practice of reviews carried out by the Cochrane Collaboration in health and the Campbell Collaboration in social policy. The review makes explicit the methods used to identify relevant research reports and academic papers published in refereed journals. Based on the available evidence, the review highlights current trends, needs and promising areas for development.

Our intention in this review is to build on the work undertaken by Barret and Greenaway in 1995, updating and developing themes identified there as well as filling gaps and drawing on newly emerging approaches and findings.

1.1 Methodology
The aim of the literature search was to try and gain a better understanding of the following:
a) the potential benefits to young people of "Wild Adventure Space"
b) the issues concerned with providing "Wild Adventure Space" for young people, including benefits to society, future planning and possible barriers
c) the issues and implications in relation to the research hypothesis:
  - young people's perceptions of _risk_ (cf young people being considered _at risk_) in wild environments, vs. safety;
  - the spectrum of risks young people find themselves involved in, including risks they take to be away from adult control which may involve illegal activities;
  - control vs. autonomy;
  - structured vs. unstructured wild areas;
  - supervised vs. unsupervised wild areas;
  - how young people learn to recognise risks in wild areas;
  - relevant legislation and litigation.

The literature search and review was conducted using a combination of techniques. It drew on the prior knowledge and experience of OPENspace researchers (which includes expertise in children's and young people's perceptions of open green spaces), recommendations of the steering group, references cited in key published works, conventional and computerised databases and internet websites.

1.1.1 Keywords and Search Tools used include:
- Childhood memories + natural environment
- Experience of natural environments + young people
- Outdoor education
- Physical activity + outdoor environment + teenagers
- Risk + nature
- Risk + teenagers
- Sport + young people/teenagers
- Wild adventure
- Wild nature + teenagers
- Wilderness + young people/teenagers
- Wilderness therapy
- Young people's experiences + outdoor environments

1.1.2 Databases searched include:
- Athens database (BIDS)
- Edinburgh College of Art
- Igenta
- National Library of Scotland
- University of Edinburgh
- Web of Knowledge
- Web of Science

1.1.3 The Internet search used words and sites, including:
- CYE online journal (Children, Youth and Environment)
- www.edra.org (Environmental Design Research Association website)
- www.google.com
- www.reviewing.co.uk
- www.scholar.google.com

1.1.4 Post-1995 editions of Periodicals searched include:
- Children's Environments Quarterly
- Children's Geographies
- ECOS
- Environment and Behaviour
- Journal of Experiential Education
- Journal of Outdoor Education
- Landscape Journal
- Youth Studies

1.1.5 Limitations of the Methodology
- No search can be wholly comprehensive and it is likely that articles in the non-academic press, work currently in progress, or work currently completed may not be included here;
- Some of the most current non-academic research and projects may not be under evaluation so we may not yet know their full outcome(s);
- Within the time available for the project, and due to its nature as a scoping review, it was not feasible to be completely exhaustive in locating or retrieving all relevant literature, particularly that not directly available in the range of libraries accessible in Edinburgh and/or on the internet;
- The potential range of disciplines whose interests overlap with those of this project is enormous and some discretion was necessary to limit and focus the search in directions predicted to be most useful.

Despite these limitations, the scope of the review is considered adequate for the purposes identified by the client.
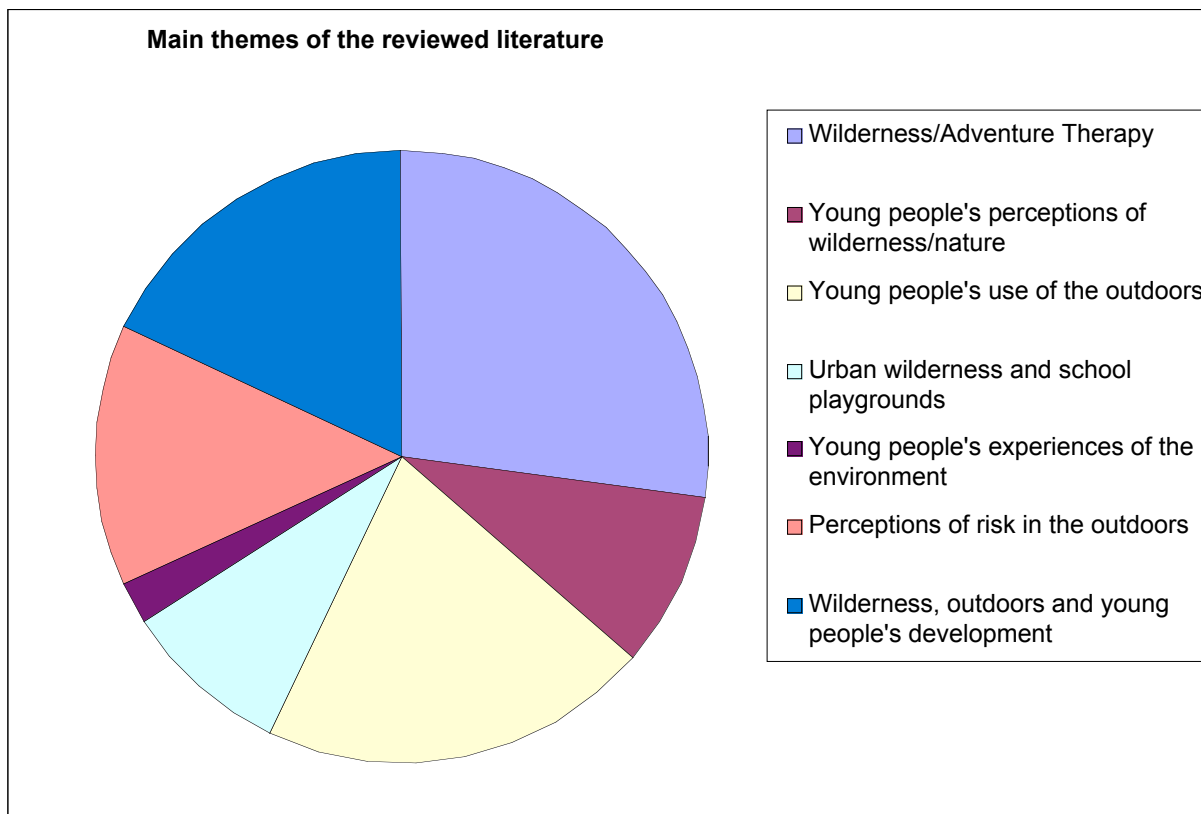
1.2 Presentations of Results
The results have been presented in three sections:
a) an overview of the search and its findings;
b) a bibliography of relevant work identified in the literature search and surveyed as part of this review;
c) reviews of individual papers or publications which are significant, either as landmark works or as summaries of an important body of prior work, or because

they point to new understandings or opportunities and techniques for further research. This third section is presented in a separate document, WAS 2, because of its considerable volume.

The overview of the search and its findings presented in (a) does not include all individual reviews listed in WAS 2, but only those most important and relevant to this scoping review. Where reviewed work in WAS 2 lists other relevant references, not all of which may have been located and read as part of this survey, these are listed at the back of the review. All relevant published work located and surveyed as part of this project is listed in the references at the end of this chapter.

Main themes of the reviewed literature

- Wilderness/Adventure Therapy
- Young people's perceptions of wilderness/nature
- Young people's use of the outdoors
- Urban wilderness and school playgrounds
- Young people's experiences of the environment
- Perceptions of risk in the outdoors
- Wilderness, outdoors and young people's development

Figure 1.1: Main themes emerging from the reviewed literature

138 research papers, project reports, monographs, position papers and systematic literature reviews on related topics have been reviewed. Although this review focused on material published since 1995, we have also included a few significant publications of the period 1990-1995, as well as comprehensive reviews of the pre-1995 literature that provided the backdrop to the present review, namely the annotated bibliography on wilderness studies by Friese et al. (1995) and the review on the value of outdoor adventure for young people's personal and social development by Barrett and Greenaway (1995). The main themes emerging from this review of the literature are the following:
- Wildness or wilderness is a relative concept

- Wild or wilderness experiences, as is true of nature and outdoors experiences in general, are very important for the physical, emotional and mental development of children and young people
- Young people's opportunities to experience wilderness – and the outdoors in general - are being restricted
- Perceptions of risk appear to be one of the main reasons for this restriction
- Young people's perceptions of wilderness and values of nature have attracted much research interest
- There is a growing recognition of the therapeutic potential of wilderness for young people at risk
- As most children now grow up in cities or urban environments, urban wilderness is the type of wilderness most frequently experienced by children
- The character of wilderness experience is dynamic and subject to change. Wilderness experience is expected to change in the future
- Wilderness and natural settings can be utilised towards the realisation of the new national standards promoted by governmental initiatives (e.g. *Youth Matters*).

What follows is a summary account of the main findings in relation to each of these principal themes

1.2.1   Wildness/Wilderness as a relative concept

Although the initial concept that this scoping review set out to analyse was wild adventure and the kind of space that allows for wild adventure, 'wildness' has necessarily ended up with a focus on 'wilderness'. The main reason for this shift is that, in the search for relevant literature, the word that came up most often in relation to wild adventure space was 'wilderness'. Thus any review of literature on wild adventure and wild space inevitably results in a review of literature on wilderness. Besides, the word has derived from the notion of *wildness* or that which is still natural and wild beyond any human intervention (Neill 2003). The word's etymology is from the Old English *wildeornes,* which derives from *wildeor* wild beast (from wild + *deor* beast, deer) (The Collins English Dictionary, 2000).

So, wilderness has come to refer to "states" of wilderness as experienced and/or defined by people. Interestingly this means that we now also refer to emotional and psychological wilderness, the wilderness of space, political wilderness, and so on. The more common conception of wilderness, at least in Western and industrialized societies, is of wilderness as physical places where the forces of nature have evolved relatively uninfluenced by humans.

Against this background, wilderness is often perceived as an absolute: an environment in its natural state, without human inhabitants and human-related influences and impacts. Clearly such a definition of wilderness is irrelevant for present-day Britain, a place inhabited and modified by humans for millennia. Carver et al. (2002), propose that the relativistic concept of 'wilderness continuum' (Hendee et al. 1990) is much more applicable in countries like Britain. The wilderness continuum concept states that true pristine wildness is one extreme on the environmental modification spectrum, with the totally urbanised environment at the other end. In their internet survey public conceptions of wilderness attributes in Great Britain, Carver et al. (2002) found that the majority of Britain's wildest areas occur in the northwest Scottish Highlands and are currently within private rather than public ownership. "Many of these landscapes may be regarded as secondary wilderness,

created during the "clearances" and maintained subsequently by land management practices focused on deer stalking, grouse shooting, sport fishing and sheep farming".

1.2.2 Importance of wilderness experiences for youth development

Recent studies suggest that physical activity in natural settings confers a range of benefits for physical and mental health and wellbeing. There is a growing understanding of the fundamental importance of experiencing natural settings for the healthy physical, mental, cognitive, emotional and social development of children and young people. In their latest review of literature on children and nature, Faber Taylor and Kuo (2006: 125, 136) found strong evidence of a causal link between contact with nature and children's healthy development in several domains such as cognitive, social and emotional development. Against the backdrop of growing restrictions on young people's access to the outdoors (see next section), this understanding is also reflected in a number of - often polemical - publications. Louv (2005), in a passionately argued thesis, advocates children's and young people's experience of wilderness as the only means to prevent and cure what he calls 'nature-deficit disorder': deprivation that can result in a 'cultural autism', manifest with symptoms of tunnelled senses and feelings of isolation and containment. It is claimed that nature-deficit disorder results from the replacement of primary experience of nature by the secondary, vicarious, often distorted, dual sensory (vision and sound only), one-way experience of television and other electronic media (Cooper 2005). By contrast, outdoor adventure and, particularly, adventurous outdoor play, are thought to present young people with a number of benefits, fostering their personal and social development. Louv's arguments are based on a mixture of secondary research evidence and anecdote and epitomise the position of many people involved with exploring issues of young people's relationship with nature. The spectre of a younger generation growing up with no, or only limited, contact with nature is evoked in much of the campaigning literature.

The positive outcomes derived from wilderness/adventure therapy are found to derive from other (non-explicitly therapeutic in intent) wilderness adventure experiences as well (Barrett and Greenaway 1995; Louv 2005). For instance, Pretty et al. (2003) use the term 'green exercise' to describe formal or informal physical activities in natural settings; green exercise facilitates a synergy between activity and setting. Children and young people can profit from this synergy between activity and setting at least as much as adults can. The significance of wilderness experiences for children and young people, however, extends beyond any benefits from green exercise.

For younger children, outdoor adventure usually takes the form of informal outdoor play. Yet a recent study commissioned by Persil found out that 33% of children aged 7 to 16 avoid playing outside in order to keep their clothes and trainers clean, whereas 72% claim that they regularly avoid messy indoor and outdoor play as their parents do not like them to get their clothes dirty (Persil 2005). Dr. John Richer, a consultant clinical psychologist and principal investigator of this study, urges parents to see that "getting dirty is part of a child's successful and happy development" (Richer 2005). Children's outdoor play promotes their adaptation to their world, their risk-appraisal skills and their sense of balance between proper independence and social understanding (Richer 2005).

Recent evidence on children's declining abilities in terms of the Piagetian model of development has led to the suggestion that lack of outdoor adventure may be partly to blame (Crace, 2006). ESRC-funded research by Shayer on the developmental stages of 11- and 12-year-old children has produced the alarming finding that they are now on average between two and three years behind where they were 15 years ago in terms of cognitive and conceptual development. Shayer has speculated that the most likely reasons are "the lack of experiential play in primary schools, and the growth of a video-game, TV culture. Both take away the kind of hands-on play that allows kids to experience how the world works in practice and to make informed judgments about abstract concepts." (Shayer in Crace, 2006).

A very comprehensive review of the multiple benefits of children's play was undertaken by Cole-Hamilton (2001), while Bingley and Milligan (2004) documented the links between outdoor play in natural settings during childhood and mental health and wellbeing during subsequent young adulthood. They concluded that childhood play in natural settings has a long-term positive effect on mental health and well-being during young adulthood and that "woodland and forests can provide certain therapeutic qualities that a young adult may use to alleviate stress and mental health problems" (p. 74). Table 1.1 lists a number of potential health, educational and societal benefits that can be conferred by unstructured outdoor play in natural settings.

Potential benefits from outdoor play and adventure in natural settings

Benefits on physical health
- Increased levels of physical activity and fitness
- Positive views towards undertaking physical activity
- Activation of higher cognitive processes and healthy brain development
- Promotion of mental health and emotional well-being
- Reassuring effect on children in need of hospital treatment
- Better mental health and well-being in later years (young adulthood)

Educational and societal benefits
- Learning of social skills (e.g. interpersonal, negotiation and listening skills) and formation of peer groups
- Promotion of language development and socialisation
- Acquisition of problem solving skills
- Improvement of internalisation of locus of control
- Improved self-esteem and ability for goal setting
- Enhancement of self-control
- Enhancement of self-efficacy
- Encouragement of responsibility
- Revelation of child's developmental stage, interests and needs
- Importance for children's learning, including practical experience that informs scientific understanding of how the world works
- Ability to realistically appraise risks
- Development of flexibility and adaptability to changing surroundings
- Development of ecological consciousness
- Encouragement of constructive use of leisure
- Long-term appreciation of wilderness and its therapeutic potential

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Table 1.1: Potential benefits from outdoor play (Barrett and Greenaway 1995; Valentine and McKendrick 1997; Cole-Hamilton et al. 2001; Bingley and Milligan 2004; Everard et al. 2004; Ward Thompson et al. 2004; Thomas and Thompson 2004; Thompson 2005; Gill 2006; Crace 2006).

Another concept about children's engagement with the natural world that has proved very appealing to outdoor enthusiasts, is the ecopsychological approach, which postulates that children are born with an innate sense of relatedness with their environment, which they lose during later socialisation (Phenice and Griffore 2003; Thomas and Thompson 2004; Thompson 2005); this warrants further research to provide empirical support. Experiences of nature during the crucial period of formation of self and socialisation seem to be of particular importance. A large body of literature, produced during the last 16 years, suggest that childhood experiences of nature play a crucial role in an individual's sense of connectedness with nature in later life (Sorel 1990; Seeba 1991; Hansen 1998; Bixler et al. (2002). The roots of a

sense of place are established during middle childhood, when early childhood's 'sense of wonder', becomes transmuted a sense of exploration' (Sorel 1990). Seeba's (1991: 395) study of memories of childhood held by Israeli adults found that "almost all [participants] identify the most significance place in their childhood with the outdoors". According to this study, there is a clear connection between the quality of children's experience of nature and the engraving, through their active involvement with their body, senses and awareness, of this experience in memory as these children mature. In a similar vein, Ward Thompson et al. (2004) concluded that "the frequency of childhood visits to woodlands is the single most important predictor of how often people visit woodlands as adults" in Central Scotland; a conclusion also reached by Bingley and Milligan (2004) after a study of woodland visitation in Lancaster. Very similar results come from a study of the perception and experience of nature by urban youths in Singapore (Kong et al. 1999). What is apparent from the Singapore analysis is that most of the participants had little interest in and affinity for nature. This appears to be the result of growing up in a highly urban environment with little contact with nature, as well as of parental concerns about the potential risks to which their children are exposed when playing in natural areas.

The comprehensive literature review by Cole-Hamilton et al. (2001) identified two important gaps in the literature about the value of children's play and play provision: research on the health benefits of play for children with disabilities and for children from ethnic minority backgrounds is virtually absent. This absence is particularly regrettable as children with disabilities and from ethnic minority backgrounds are the two groups which most studies identify as those experiencing most restrictions in their access to outdoor play. This gap does not concern children exclusively; as Ross (2004) remarks, there is a lack of research concerning the best context and methods for providing outdoor education experiences for persons with disabilities, regardless of age. Another less well researched area is that of the benefits conferred by particular types of wilderness (e.g. urban forests; Wolf et al. 2004).

1.2.3 Decrease of young people's exposure to wilderness/outdoors experiences

Most studies suggest that children's and young people's exposure to the outdoors is becoming increasingly restricted, even to the extent that "understanding and learning through the natural environment is itself at risk" (Lewis 2005). Cooper (2005) also warns that children are leading more restricted and protected lives, disconnected from the natural world, and that their loss of outdoor experience is a serious detriment to their physical, emotional and cognitive development. That children and young people have a restricted range of unsupervised activity is a recurrent finding in studies situated in urban settings, both in the UK and in other English-speaking countries. Perhaps surprisingly, a study of the experience of growing up in rural Northamptonshire showed that the belief that rural children are free to wander extensively in and about the countryside is a myth; instead their license to roam freely is as restricted as that of their urban counterparts (Matthews et al. 2000).

Young people's opportunities to experience outdoors – including natural and wild - places are hindered by a number of factors, related primarily to the changing perceptions of the outdoors, safety and childhood and, also, to the physical quality of the surrounding environment. The following factors are the most frequently identified barriers in the reviewed literature:

- **Conceptualisation of young people as 'problem' and 'threat' and their resulting marginalisation and social exclusion** (Valentine 1996; Cole-Hamilton et al. 2001; Malone and Hasluck 1998; Bell et al. 2003; Woolley 2003). This is particularly relevant in the case of urban public spaces, including parks and urban wilderness; the few available studies about the experience of rural teenagerhood in the UK (e.g. Matthews et al. 2000), nevertheless, suggest that mistrust and exclusion of young people from public space is far from an exclusively urban phenomenon.

- **Parental fears about safety**, especially fears of vehicular traffic, adult strangers and other young people. Parental fear is deemed to be the main cause restricting children's access to the outdoors, especially in inner-city neighbourhoods (Blakey 1994; Valentine and McKendrick 1997; Cole-Hamilton et al. 2001; Rivkin 2001; Kong 2000; Matthews et al. 2000; Bell et al. 2003; Gill 2006; HenleyCentreHeadlightVision 2005; Louv 2005)

- **Young people's fears about safety** (Simons 1994; Crow and Bowen 1997; Malone and Hasluck 1998; Thomas and Thompson 2004; Thompson 2005; Millward and Wheway 2005)

- **Educators' fear of litigation** (Knight and Anderson 2004)

- **Social class** (Walker and Kiecolt 1995; Thomas and Thompson 2004) **and ethnic background** (Blakey 1994): in the UK, young people from lower social class and minority ethic backgrounds are the least exposed to outdoors experiences. These results are similar to the disparity of nature experience in the USA, where outdoors and wilderness pursuits have long been known to be a predominantly 'white' activity (Johnson et al. 1997)

- **Poor environmental quality**, e.g. absence of trees and other attractive environmental features (Faber Taylor et al. 1998), litter and vandalism (Crow and Bowen 1997; Malone and Hasluck 1998)

- **Negative images and feelings about woodland and wilderness** from media reports, films, myths and stories (Bingley and Milligan 2004)

- **The attractions of staying inside** for amusement and comfort (Rivkin 2001; Louv 2005)

- **Commercialisation of youth spaces** (Malone and Hasluck 1998)

- **The changing nature of childhood** (Valentine and McKendrick 1997; HenleyCentreHeadlightVision 2005; Louv 2005)

A couple of empirical studies, however, go against the grain of widespread concern about the reduction of children's outdoor play. Both studies – one from a suburban setting in Fife, Scotland (Ross 2004) and one from inner-city Chicago (Taylor et al. 1998) found that children continue to spent much time outdoors and to enjoy variable and satisfying informal play away from adult supervision. Recent studies in the use

of woodland in Central Scotland (Bell et al. 2003; Ward Thompson et al. 2004) also suggest that young people use local woodland frequently (at least once a month). A similar study in Sheffield focused on younger children's (7-10 year-olds') perceptions of woodland and urban parks (Crow and Bowen 1997). Children perceived woodland as fun; the fewer, negative connotations were associated with notions of risk. Their perception of woodlands is greatly affected by the use and abuse of woods: litter and vandalism make children perceive a particular area as potentially dangerous. Woods with the potential for a variety of activities were thought to be better than those with 'just trees'.

Concerns about the reduction of outdoor play due to new, more appealing and well-marketed indoor attractions (i.e. computer and video games) need to be set against a thorough consideration of how these attractions for young people emerged as a novel market. Official statistics show that the number of hours young people spend in indoor activities is on the increase (in 1999 an average of 11.4 hours per week were spent watching television and videos compared with 7.5 hours spent on physical activity – Office for National Statistics 2004). The interpretation of these statistical findings, nevertheless, requires some caution. For instance, a study on leisure and play preferences of young people in Canada found that the appeal of the sedentary pursuits that keep young people at home is based on the same recreational attractions that can, in different contexts, entice them to go out and engage with nature and wilderness (Media Analysis Lab, 1998). For the majority of participants (80%), playing video games is a "pleasant, exciting and challenging" experience (Media Analysis Lab 1998: 10), adjectives that in other contexts, are used to describe adventurous outdoors experiences. Indeed, outdoors pursuits figure prominently among the favourite recreation activities of young respondents of the same research. Almost all of the youth surveyed (91%) said they enjoyed social events such as 'hanging around with friends and playing outdoors (74%). Maybe these numbers give support for positing that outdoor activities and sedentary, technologically enhanced recreation are not necessarily mutually exclusive; they could be complementary forms of exciting and challenging experiences that young people cherish.

1.2.4 Risk

As noted above, there is an almost unanimous consensus in the literature that notions of risk (e.g. bullying, assault, injury, getting lost etc.) are the principal hindrances to young peoples' use of the outdoors, be it urban outdoor spaces or rural wilderness. These notions of risk are often shared by parents and carers, teachers and other figures of influence and often by young people themselves in an increasingly restrictive social climate that constitutes what Gill (2006) and Cooper (2005) call 'a culture of fear'. There is a growing literature in the social-cultural dimensions of perceptions of risk in general, and in relation to young people's experience of the outdoors in particular.

A study commissioned by the governmental Health and Safety Executive (Adams and Thompson 2002) attempts to frame the cultural and societal dimensions of risk. Risk refers to future events and exists only in the imagination: it is by definition subjective. In a heterogeneous society, diverse socio-cultural groups and individuals hold different and conflicting conceptions of risk. It should also be noted that perceptions of level and types of risk associated with outdoors natural settings are

not uniform across cultures. The study of Singaporean youths' perceptions of nature by Kong et al. (1999) reveals that the association between natural settings and fear of assault or other crime was absent, in sharp contrast with the frequent references to risk by British and American respondents of similar studies (Table 1.2). One possible reason for this finding is the high level of public safety in Singapore (in 1993, it was ranked the safest city in the world, see Loke 1994).

What kinds of fears curtail young people's experience of the outdoors and wilderness? Types of risk reported by parents and children in British, American and Australian studies are summarised in Table 1.2.

Perceived risks of the outdoors and wilderness				
Risk	Reported by	Country/Setting	Comments	Sources
Traffic	Parents, teenagers	UK, Australia		Cole-Hamilton, et al. 2001; Malone and Hasluck 1998; Gill 2006; Cole-Hamilton et al. 2001; Millward and Wheway 2005
Racism	Parents	UK	Ethnic minority children; UK	Cole-Hamilton et al. 2001; Blakely 1994
Physical assault	Parents, teenagers	Inner city New York; NW England, Australia	Ethnic minority children (UK), girls (UK; New York); No1 fear in the New York study	Valentine and McKendrick 1997; Malone and Hasluck 1998
Moral injury	Parents, teenagers	Inner city New York, Australia		Blakely 1994; Malone and Hasluck 1998
'Stranger danger'	Parents	UK, inner city New York NW England; central Scotland		Blakely 1994; Gill 2006
Other children/ Teenagers		UK, inner city New York NW England; central Scotland		Valentine and McKendrick 1997; Bell et al. 2003
Lack of suitable infrastructure		UK	Children with disability	Cole-Hamilton et al. 2001

Table 1.2: Risks associated with the use of the outdoors and wilderness in Britain and the USA.

A note of caution is perhaps due here: although the majority of studies conclude that parental perceptions of risk result in radical reduction of young people's access to the outdoors and wilderness, that indeed risk and safety concerns are among the principal causes (or even the principal cause) for such reduction, a few empirical studies suggest that these concerns are not necessarily heeded by young people. The study of use of woodlands in central Scotland (Ward Thompson et al. 2004), for instance, found that older children and teenagers widely disregarded parental restrictions of movement and that they made extensive use of 'prohibited' parts of woodland by resorting to the time-honoured strategy of simply not telling their parents!

As risk has become a major societal concern, risk management has become an important consideration for many public organisations, including those managing natural settings. Adams and Thompson (2002) view risk management as a balancing act, weighting the rewards of getting it right against the costs of getting it wrong. "Risk management that pursues only the objective of reducing the costs of getting it wrong will be oblivious to significant opportunity costs". They recommend an insightful risk management approach that seeks to take into account, to the maximum extent possible, the perspectives of all the stakeholders concerned with the risk to be managed.

The risk management approach formulated by the Forestry Commission recognises the value of choice making and unsupervised play for young people and that young people's activities in woodland will inevitably involve some level of risk; risk management aims to facilitate these activities while reducing the involved risk to acceptable levels. This approach is reflected by a number of Forestry Commission's guidance papers. The *Guidance for Managers* regarding challenging bike areas (Harrop 2002) recognises that challenging bike areas are highly valued by their users and recommends that these areas remain accessible. The recommended risk management approach is one of prioritisation of sites, clarification of the risks/hazards presented, formulation and implementation of a management strategy and monitoring of results. Managers are urged to take action if they find "something that is really dangerous". A similar line is taken by a guidance paper on self-built play structures (rope swings, dens, treehouses) and fires (Harrop 2006), which recognises that "provision of spaces where children are allowed to make their own choices in a natural setting helps to deepen their engagement with, and understanding and appreciation of, those settings, is beneficial to mental wellbeing and counteracts the commodification of childhood". The same study advises that any intervention by FC staff should be careful and respectful of the secret, 'no adult control' aspects of the children's activity.

The Play Safety Forum (2002) has also published a position statement on risk management in play provision (e.g. play areas, playgrounds, adventure playgrounds, play centres, holiday play-schemes). It is advised that risks are made as obvious as possible to children, and that hazards which children cannot appreciate are designed out of playspaces. While it is accepted that children will be exposed to the risk of minor and easily-healed injuries, exposure to the risk of permanent disability or life-threatening injuries is unacceptable. A very low risk of serious injury or death is to be tolerated in the following conditions:

- the likelihood were extremely low
- the hazards were clear to users
- there were obvious benefits
- further reduction of the risks would remove the benefits
- there were no reasonably practicable ways to manage the risk

1.2.5 Young people's perceptions of wilderness/values of nature

The concept of nature is understood as a construct resulting from our interactions with the physical, social and cultural world (Wals 1994). As Kong et al. (1999) remark, young peoples' perceptions and experiences of their environment may differ from those of adults and deserve to be understood in their own right. There is a considerable number of empirical studies focusing on children's and young people's perceptions and values of nature and wilderness (Figure 1.1). Most studies' methodological approaches comprised interviews and questionnaire surveys; some studies also included content analysis of children's text and drawings and Wals (1994) followed action-research and phenomenological participant observation. Few studies follow cross-cultural perspectives, comparing perceptions and values of youth from different societies across the world. Robertson et al. (2002) conducted a study of changing leisure geographies of young people across 6 countries in Asia, Australia and Europe. Björklid and Nordström (2004) present an international comparative study on the outdoor experience of children growing up in cities in Sweden, Finland and Italy. Lily Kong (Kong et al 1999; Kong 2000) in a large study on Singaporean youths' perceptions and experiences of nature, suggests that positive perceptions of nature, woodland and wilderness are not universal: Singaporean youth had little interest in and affinity with nature (Kong et al. 1999; Kong 2000).

The Britain-wide 1996 Land Use Survey, involving a sample population of 20,000 school age children (Robertson and Walford 2000) and its 1998 follow up in East Anglia and the eastern fringe of the East Midlands, involving 800 teenagers (11-18 year olds) (Robertson et al. 2003) investigated young people's perceptions of landscape. The key findings were as follows:

- Nature and wildlife was the most valued category of landscape (20% of respondents); the most valued sub-category within the latter was plants (43%), followed by animals (27%) and natural habitats/woods (24%)
- Countryside and leisure activities were the second most valued categories of landscape (9.4% of respondents each). Specified popular sub-categories within countryside included views/beauty (16%) and peace/freedom/space (also 16%).
- When asked to identify features unique to the British landscape, most respondents associated it with nature/wildlife (21%), landscape/(rural) environments (14%), agriculture (14%), specific places (10%) and aesthetics (10%). Urban-related terms were rare.

These findings appear very positive about attitudes to nature and the landscape, but may in part reflect the nature of questions asked and do not necessarily suggest that young people are keen to undertake outdoor activities.

A large study conducted in rural Leicestershire (Community Heritage Initiative 2004) among children and young people from 7 to 20 years old found that the words wildlife, nature, countryside and environment elicited mainly positive or neutral

responses; the fewer negative responses (18%) were related with risk and boredom. The main positive feeling reported was being relaxed and the main negative feeling was being bored. In terms of preferred components of wildlife and the countryside, 'animals' was the most frequent category, followed by rivers, trees and woodland. The study also concluded that many young people are well informed about wildlife around them. The main sources of information were television/radio and books/magazines, followed by local information points, guided walks, friends and family. The internet was the source of information most favoured by respondents.

Studies from the related context of environmental education also offer some insights into young people's perceptions of the natural environment. Ballantyne and Parker (2002) investigated students' expectations and experience of learning in natural settings. They found that most students were looking forward to their visits to natural settings; primary school students were more enthusiastic than secondary school students. As in other studies (e.g. Community Heritage Initiative 2004), interaction with wildlife was the main attraction, followed by visiting/learning about forests. 41% of students reported change in their environmental attitudes as a result of such visits. Wals (1994) found that young adolescents (12-13 years old) from Detroit, USA perceive nature as "flowers, animals, trees […] alive; pure, peaceful, pristine, non-human made; freedom, solitude, self-supporting, wild and spontaneous".

A number of projects are dedicated to outdoor experiential learning as a means of developing young people's environmental values. The Stoneleigh Project, for instance, is addressed to young people aged 18-25 and aims to offer them the opportunities to express their citizenship through personal development and social action. The Real World Learning campaign is a partnership between several leading British conservation bodies that encourages children "to get out of the classroom to discover the world around them" (Simpson 2005). School visits to this project's centres across the UK have declined by 10% in the last 5 years.

1.2.6 Wilderness/Adventure Therapy for Youth-at-Risk

A large number of publications is dedicated to various forms of adventure or wilderness therapy for youth at risk, including descriptions of American and Australian projects (Figure 1.1).

"Wilderness therapy is an emerging intervention […] to help adolescents overcome emotional, adjustment, addiction, and psychological problems" (Russell et al. 2000, p. 207). Wilderness therapy is part of the broader field of wilderness experience, itself part of the much broader and diverse field of outdoor education (Table 1.3). An alternative term for outdoor therapeutic interventions based on adventure activities is 'adventure therapy'. Differences in focus notwithstanding, in this report the terms 'wilderness therapy' and 'adventure therapy' are used interchangeably.

Outdoor education		
Fieldwork and outdoor visits	Outdoor adventure education	School grounds/community projects
	Wilderness education	Wilderness/ Adventure therapy	

Table 1.3: Position of wilderness/adventure therapy within the broader field of outdoor education (data from Russell et al. 2000; Rickinson et al. 2004)

Participants in wilderness therapy programmes are young people considered 'at risk'. The most frequent age range is 12-17 (Russell et al. 2000), although participants over 19 years old are reported from some programmes (Sveen and Denholm 1993; Bennett et al. 1998). Which young people are considered as being 'at risk'? Common experiences of young people at risk include past physical and sexual abuse, neglect or abandonment, dysfunctional families, multiple placements and resulting offending behaviours (Sveen and Denholm 1993; McNutt 1994), including alcohol and other substance abuse (Russell et al. 2000).

The theoretical foundations of wilderness therapy programmes are based on traditional wilderness programmes such as Outward Bound, integrated with "an eclectic therapeutic model based on a family systems perspective with a cognitive behavioural treatment emphasis" (Russell et al. 2000, p. 211). Clients' problem behaviour is viewed as a result of negative environments from which they come, the most powerful influence being the family. The natural environment imposes a set of natural consequences on the clients, allowing staff to step back from traditional positions of authority. Rites of passage, practised by traditional cultures, also play an important role in wilderness therapy programmes (Russell et al. 2000; Start 2005).

Russell et al. (2000) classified wilderness therapy programmes as shown on Table 1.4.

Wilderness Therapy Programmes	
Expedition Programmes They remain in the field for the duration of the treatment process	**Base Camp Programmes** They have a structured base camp, leave on an expedition for a period of time and return to the base camp for follow-up activities

Contained Programmes Shorter, up to 3 weeks in length; clients and treatment team stay together for the duration of the trip	**Continuous flow Programmes** Longer, up to 8 weeks in length and have leaders and therapists rotating in and out of the field.

Table 1.4: Types of wilderness therapy programmes (data from Russell et al. 2000).

The psychological processes involved in wilderness therapy were investigated by Russell (1999) and Russell et al. (2000). The authors constructed a model of wilderness therapy for adolescents with addictions as a three-phase process, involving:

- **A cleansing phase**, addressing clients' chemical dependencies by removing them from the destructive environments that perpetuated their addictions.
- **A personal and social responsibility phase**: natural consequences and peer interaction help clients to learn and accept personal and social responsibility. Self care and personal responsibility are facilitated by natural consequences in wilderness and not by authority figures whom troubled adolescents are prone to resist.
- **A transition and aftercare phase:** clients prepare to return to the environment from which they came. Staff work with them to process what they have learned and how to take these lessons home with them

A large number of publications attempt to justify the use of outdoor experience programmes as an alternative to other (punitive) forms of intervention for youth at risk.

There is a general agreement in the literature that wilderness therapy is an effective intervention, resulting in a variety of positive and potentially long-lasting behavioural changes. Positive outcomes of wilderness therapy reported in the literature include**:**

- **Development of self concept** (McNutt 1994; Barrett and Greenaway 1995; Russell et al. 2000). Positive impacts on young participants' beliefs and self-

perceptions were reported from the broader field of outdoor adventure programmes (Rickinson et al. 2004).
- **Enhanced participant-staff relationships** (Barrett and Greenaway 1995)
- **Increased self-efficacy and knowledge and skills that can lead to positive employment orientation and increased employment opportunities** (Sveen and Denholm 1993; Barrett and Greenaway 1995; Russell, Hendee and Cooke 1998; Russell, Hendee and Phillips-Miller 2000). Such skills include communication, problem solving, interpersonal, negotiation and listening, self-esteem and goal setting, motivation and personal career development, organisational effectiveness and leadership (Russell, Hendee and Cooke 1998).
- **Realisations of personal behaviour** (Barrett and Greenaway 1995; Russell, Hendee and Phillips-Miller 2000)
- **Strengthened family relations** (Russell, Hendee and Phillips-Miller 2000)
- **Enthusiasm for new individual and group recreation options** (Sveen and Denholm 1993; Everard et al. 2004) and constructive use of leisure (Barrett and Greenaway 1995).
- **Reduced rates of reoffending** (Sveen and Denholm 1993; Barrett and Greenaway 1995; West and Crompton 1999; Pearson 1991) or reduced rates of/relapse in substance addiction (Bennet et al. 1998).

A cost/benefit analysis of an American wilderness programme aiming at increased employability of its participants (Federal Job Corps) suggested that the benefits generated by the programme are twice as great as the operational cost (Russell, Hendee and Cooke 1998).

Sveen and Denholm (1993) stress the importance of voluntary participation in wilderness adventure programmes. Participants who felt they were coerced to attend had a lower level of commitment and a negative impact on group dynamics.

Few papers deal with the evaluation of the effectiveness of wilderness therapy programmes. Reviewing the evidence, Rickinson et al. (2004) remark that the evidence base for cognitive and physical/behavioural benefits is less strong than for affective and interpersonal/social outcomes. This conclusion is also supported by a recently published paper (Faber Taylor and Kuo 2006) whose authors claim that there is little research on the behavioural outcomes of wilderness therapy programmes. Further to this argument, they question the validity of findings that show a strong correlation between young people's contact with nature while in wilderness therapy programmes and positive behavioural changes. They suggest that there is a high possibility that the data is based on participants' individual beliefs and their desire to please the researcher(s) and support the programme(s).

West and Crompton (1999) reviewed empirical research on the effectiveness of outdoor experience programmes in alleviating the behaviour of youth at risk. Empirical evaluation of these programmes follows one of two approaches: measurement of recidivism rates, or assessment of the psychological benefits of participation. Independently of the evaluation approach, most studies reviewed by West and Crompton (1999) suggested that outdoor experience programmes have positive effects on youth at risk. Eight out of thirteen studies of recidivism rates reported reduced rates of recidivism in their experimental groups. Thirteen out of fourteen studies investigating changes in the self-concept of participants also

reported significant positive changes. West and Crompton (1999), however, point out that oversights in study design and a failure to take into account recent developments in the field of juvenile delinquency studies (e.g. Jessor's 1991 account of multiple protective factors) make the results of most of these studies only tentative. In a similar vein, a recent review of research on youth benefits from nature and forest experiences points out the lacuna of the exclusion of the "broader scope of outcomes hinted at by recent psychological research" by benefits evaluations of wilderness programmes (Wolf 2004).

In her review of two distinct evaluations of the same Australian wilderness therapy programme, Conway (2002) provides some interesting insights into the contested aims and methods and of the evaluation process, showing that the latter is far from being a neutral process. Evaluations differ in their aims, in the identity and interests of those who drive them, in the time periods over which they are conducted, in the background and personality of the evaluator and what was needed from the staff of the evaluated programme. The author concluded that each evaluation approach evaluates different aspects of the programme and recommended that combinations of approaches are employed.

Adventure therapy is currently being organised as a distinct therapeutic/educational practice. A recent national seminar attempted to set out the agenda of adventure therapy in the UK (Richards 2002).

1.2.7 Children's and Young People's Favourite Places

One way to approach children's and young people's place preference(s) is to look at a theory that focuses on the reciprocal relationship of environment and people. Gibson's theory of affordances (1979) is appropriate here as, at its very centre, lies a "transactional belief about people-environment reciprocity; the observer and the environment have an active, reciprocal, mutually supportive, complementary, and equal relationship" (Clark and Uzzell 2006: 178). By examining the affordances of an environment, we can understand the different behaviours that it can or may not support. Environmental affordances will vary by both type of environment and type of user. If one environment is lacking in a specific affordance, another environment may be able to compensate (Clark and Uzzell 2006). We can hypothesise that, for an environment to become favoured, it must afford the individual opportunities for active engagement that other environments do not support.

Heft (1988), an environmental psychologist, was an early user of Gibson's theory to describe children's environments. Using Gibson's theory, he created a taxonomy of affordances in children's environments (i.e. environmental features that support an activity). However, in his analysis, Heft did not mention social affordances, which are a central feature in Gibson's theory. According to the latter, there are both physical and socio-cultural affordances in the environment, particularly when the reference is in the relationship of children/young people with it (Gibson 1979). Gibson believed that possibly the most important affordances that an environment may hold are those provided by other people. Kyttä (2006) has extended the notion of affordances in the environment beyond the physical and social to emotional and cultural affordances. Referring to young people's place preferences, Clark and Uzzell (2002) argue that the town centre, for example, is one of the most preferred and highly frequented places for teens due to the presence of others. Further to this argument, their study

showed that there are two types of affordances that make a place favoured by young people: the environment as a social setting and as a place for retreat. In particular, the research findings revealed that the neighbourhood, school and town centre all supported both social interaction and retreat behaviours (Clark and Uzzell 2002; 2006).

1.2.8   Urban wilderness and school playgrounds as favourite places

Many children grow up in cities and the wilderness most accessible to them is located within the urban setting. As Katz and Kirby (1991) point out, the presence of nature in everyday life, notably parks, allows us to comprehend nature and thus reassert our power to reconstitute social nature. The significance of urban wilderness for the community is, however, often overlooked by public decision-makers and developers (Kellert 2004). The types of urban wilderness most commonly encountered by children are parks and school playgrounds (Lucas 1995).

Simmons' (1994) study documents the environmental preferences of 8-9 year olds from Chicago: school sites and urban nature were their two most highly preferred settings (Table 1.5), followed by less urban locales, such as open fields and country paths, interpretative paths, river ponds and marshes. These places were preferred because they afforded the most opportunities for activity. Deep woods were their least preferred settings.

School sites	Urban nature
Appreciated for • Available playground • Openness • Presence of trees	**Appreciated for** • Presence of trees
Disliked for • Presence of buildings • Scarcity of trees • Safety concerns	**Disliked for** • Safety concerns
Things to do • Organised team sports (41%) • General play (29%) • Organised games (10%)	**Things to do** • Organised games (33%) • Quiet unstructured activities (e.g. reading, drawing) (18%) • Picnic and lunching (14%) • Sightseeing (13%) • Nature-related activities (9%)

Table 1.5: 8-9 year olds' perceptions of school sites and urban nature in Chicago (data from Simmons 1994)

However, the validity of these findings is not universal; organised play and well-designed playgrounds/play areas are not considered everywhere as the most favoured places by children and young people. An important recent study investigated the ways children appropriate space through informal, unstructured, outdoor play, based on research in rural and urban settings in Fife, Scotland (Ross 2004). In contrast to the findings of the study in Chicago, play in natural and unkempt

areas featured highly in children's preferences in Fife. 'Unofficial play spaces' (e.g. unkempt areas, abandoned waste grounds, derelict buildings, marginal spaces) afford greater freedoms and surprises to their child users and many opportunities for playful modification of the environment. Woods and trees, in particular, were appreciated for their capacity to facilitate imaginative play. Ross argues that "part of the attraction of woods and trees lies in their marginal status": parts of the local environment and at the same time outwith the adult gaze. Studies of suburban use of woodland in central Scotland also stress the significance of wilderness as a place outside adult control (Bell et al. 2003; Ward Thompson et al. 2004)

Similar conclusions are drawn by a study of children's dens in rural Sweden (Kylin 2003). This study also stresses the centrality of the environmental modification (in this case den construction) for the children's transformation of their environment into a meaningful place. Similar to the 'unofficial play spaces' of the Scottish study, dens are 'secret' places, where children can escape adult control.

Starting from the premise that provision for children's outdoor play in the city is integral to the project of urban sustainable development, Simonic et al. (2005) investigated an inventory playground in Maribor, Slovenia, and proposed an approach of "incremental minimal design initiatives that could promote a diversity of play in urban landscapes". Their design approach takes into account children's views, identified through interviews and content analysis of children's drawings.

Participatory approaches to playground design are, indeed, gaining ground: besides Simonic et al.'s (2005) work, there is a number of recent documents reflecting this growing interest in children's participation in the design of urban public space/playspace. The Freiburg-Stühlinger project involved students and schoolteachers in the reconstruction of the biggest playground in Freiburg. Children were involved not only in the design phase but also in the actual construction and planting work. The report of the Tollplatz project in Freiburg (Rehbein 2003) is of particular interest, as it contains practical advice on all aspects of children's involvement in playground planning and construction.

There is a renewal of interest in adventure playgrounds in urban playground design. The first adventure playground developed in the new millennium in the UK opened on 22 July 2005 in Northumberland Park, Haringey, an area among the 5% most deprived areas in the country (London Play 2005).

The organisation Learning through Landscapes aims at promoting the widespread building of school grounds in England (Lucas 1995). According to LTL, the design of school grounds must involve children in order to be successful. Their development should involve the widest possible ownership and participation in the process and a wide definition of education including the formal, the informal and the hidden curriculum. School ground development is a multi-professional activity and should take place in sustainable way.

1.2.9 Use of the outdoors (children's play, teenagers' hanging out, etc.)

The question 'what young people do in the outdoors?' is answered in a number of publications. It is approached through a range of perspectives, from theoretical works on the construction of nature and self through outdoor play, to empirical

studies conducted through participant observation, questionnaires or hermeneutic phenomenology. Outside the corpus of wilderness/adventure therapy, most of the reviewed literature focuses on children's informal outdoor space and teenagers hanging out, with far fewer works on the use of wilderness by young adults. For instance, the Centre for Children and Youth at Nene College of Higher Education carried out a large-scale study in Northamptonshire on investigating the environment as young people (9 to 16 years old) 'see it' and how they make use of place (Matthews, Limb and Taylor 1999). The main argument of the study was that young people are seemingly invisible within the 'fourth environment', those public spaces beyond home, school and playground, and provided only with 'token spaces', often inappropriate to their needs and aspirations (Matthews 1995; Matthews, Limb and Percy-Smith 1998; Matthews, Limb and Taylor, 1999). The findings from both the questionnaire survey (1087 respondents aged 9 to 16 years) and the semi-structured interviews with young people 'hanging out' on streets, revealed that more than a third of the sample used local streets on a daily basis to 'hang around with friends' during summer, of whom forty-five per cent were girls, a finding which shows that the street is not a male-dominated terrain as the media tries to imply (Matthews, Limb and Taylor 1999). The vast majority of the respondents (82%) claimed that they preferred being out and about than staying in. The same study also showed that, for teenagers, places become imbued with cultural values and meanings, affording not only a sense of difference but also of being special. The street corners, indoor shopping centres and vacant places of local areas may be seen as places where teenagers can meet and create their own identities. According to Matthews et al. (1998), young people construct their own 'microgeographies' within their local environment, trying to gain spatial autonomy from adults' control. The places described above could also be viewed as diverse forms of adventure space where young people explore and attribute meaning to the urban milieu. Those unplanned spaces, appropriated by young people, allow for a proliferation of activities that is more culturally inclusive than designed spaces (Ward Thompson 2002). These 'found' spaces could offer a place for the marginalised – in this case young people – whose presence in conventional well-designed and managed spaces is in question.

1.2.10 The future of outdoor recreation and wilderness use
Users' perceptions of nature and wilderness are anything but fixed; at the beginning of the 21st century they are undergoing rapid change.

As our conceptions of, and expectations from, nature and wilderness change, so do the demands on access to nature. Roggenbuck's analysis of changing definitions of wilderness in the USA (2000) could be of wider applicability, although some of his views may be regarded as overstated. The author identifies the emergence of a commercialised 'new nature' shaped by "the virtual reality of television, the mall, Disney and the web. As shopping is now a dominant leisure activity, and consumerism is a primary means to build, test, and augment self-identity, the mall has become a teacher of nature, providing an opportunity to purchase a piece of it for home display and worship. The new nature, taught by TV, the web, the mall and Disney, is packaged and convenient, and divorced from time and place, clean, comfortable, safe and sanitised, increasingly vivid and exciting. It has the proper level of stimulation and arousal, it is entertaining and commodified" (Roggenbuck 2000, p. 1). Table 1.6 presents the predicted future of wilderness experience from Roggenbuck's North American perspective.

Predicted wilderness experience in the 21st century (USA)	
Demand	• Actual wilderness visits are not expected to decline in the foreseeable future. • Repeat visits will drop drastically as the new wilderness clientele struggles with the slow rhythms of nature and seeks even more novel and adventurous experiences.
Type of experience	• "The nature experience of the 21st century will be clean, comfortable and safe. The market will increasingly demand quick, convenient, intense, scenic and sanitised experiences in wilderness". • "The prototypical wilderness experience will be one that can be bought and sold at the spur of the moment. It will be long on image and identity-formation potential".
Visitors' demands and expectations	• Easy access to virtual nature will increase the demand for wilderness protection. • Future wilderness visitors will demand greater service quality: convenient, fast, efficient care. • Wilderness visitors will expect their tour operator, leisure counsellor, outfitter or guide to mediate or interpret wild nature.
Outfitters and guides	• Outfitters and guides will lead a greater and greater percentage of wilderness visitors through the experience and mediate their clients' adventure. • Outfitters and guides will assess their clients' interests and abilities, match challenges with their competencies and lead them beyond boredom and anxiety.
Managers	Public land managers will tend to respond to the market by charging fees, promoting LNT (Leave No Trace), and cleaning up when nature or people leave a mess

Table 1.6: Predicted wilderness experience in the 21st century (for the USA context) (Roggenbuck 2000).

In the British context, a recent study commissioned by the Countryside Agency, English Nature and the Rural Development Service assesses the future of demand for outdoor recreation over the next 20 years (HenleyCentreHeadlightVision 2005). This study identified seven principal drivers of change in outdoor recreation to 2020:
• **Increasingly affluent society:** greater financial stability, leading to a greater ability to spend on leisure, travel and experience
• **Wellbeing:** a heightened interest in quality of life, encompassing health, physical activity levels and connection with nature

- **Reconfiguring age:** an ageing population, increasingly less inclined to be stereotyped, combined with the changing lifestyles of children and young people
- **Increased availability of information:** the role of clear and accurate information in informing and empowering people
- **Social inclusion:** the current under-representation of low income and ethnic minority groups and the political will to reverse this trend
- **Risk–averse society:** an increasingly risk-sensitive society
- **Convenience culture:** a growing premium placed on convenience, fuelled by the increasing pressures of time

The same study identified four drivers that produce most uncertainty in future developments in the demand for outdoor recreation:
- **Retuning to nature:** the greater desire to engage with the natural world
- **Drive to physical activity and health:** growing government focus on increased activity levels as a means of achieving better public health outcomes
- **Experience economy:** the focus on experience over material goods
- **Changing lifestyles of children and young adults:** the increasingly urban, sedentary and technology-led lives of young people

1.2.11 Youth Matters: Policies for young people
The intended policies of the government in relation to children and young people are described in the consultation paper Youth Matters (Department of Education and Skills 2005) and the subsequent governmental response to the results of the consultation exercise (Department of Education and Skills 2006). Of particular relevance to the issue of young people's exposure to wilderness experiences are the new national standards proposed for adoption (Department of Education and Skills). These comprise:
- Access to 2 hours per week of sporting activity, including formal and informal team and individual sports; outdoor and adventurous sports, other physical activities such as aerobics and dance.
- Access to 2 hours per week of other constructive activities in clubs, youth groups and classes, including pursuing interests and hobbies, activities that contribute to personal, social and spiritual development, encouragement of creativity, innovation and enterprise, study support, informal learning, residential opportunities.
- Opportunities for volunteering, including the full range of ways young people can make a contribution to their local communities, such as leading action, campaigning and fundraising.
- A wide range of other recreational, cultural, sporting and enriching experiences, including less structured activity that nonetheless contributes to a rich and varied life outside school or work, such as somewhere safe to hang out with friends, travel, visits to music, arts, heritage and sporting events.
- A range of safe and enjoyable places in which to spend time.

Many of these activities can be undertaken outdoors in natural settings and/or they can involve participation in nature/wilderness-oriented activities, groups and organisations. In view of the benefits conferred by 'green exercise' (Pretty et al. 2003) and the well advertised developmental benefits conferred by nature experiences (see above), utilisation of natural outdoors settings has the potential to offer a significant contribution towards the realisation of these national standards.

1.2.12 Conclusions and recommendations

- Wildness/wilderness is a relative concept, with the wildest parts of a wilderness continuum extending from pristine natural areas on the one end of the spectrum to urban landscapes on the other.
- There is a widespread recognition that experience of the outdoors and wilderness has the potential to confer a multitude of benefits on young people's physical development, emotional and mental health and well being and societal development. Mental health and wellbeing benefits from play in natural settings appear to be long-term, realised in the form of emotional stability in young adulthood.
- Unstructured play is the principal way through which children and young people engage with nature, appropriate the outdoors and enjoy the diverse benefits from their outdoors experience.
- At the same time, there is widespread recognition that young people's use of the outdoors and wilderness has reduced in recent years.
- Parental and young people's perceptions of risk figure prominently among the factors that reduce young people's access to the outdoors. These perceptions are shaped from a variety of sources; personal experience of threat or danger is not the most common input of such notions.
- Acceptance of some level of risk and a risk-management approach that weighs potential risks against benefits conferred by 'risky' activity is the recommended approach for dealing with growing concerns about risks. This proposal is adopted by Forestry Commission guidance papers on risk-management.
- Access to wilderness remains unequal: children from ethnic minorities, children with disabilities and girls are under-represented among young user groups.
- There is a lack of knowledge of wilderness uses and perceptions among members of these excluded groups. Filling this gap, as a first step towards addressing their exclusion, should be a priority for future research.
- Wilderness adventure therapy is becoming an increasingly popular therapeutic intervention for young people at risk, although still limited in UK.
- Most evaluation studies report very positive results for wilderness adventure therapy. Bias and poor study research design, however, often reduce the credibility of evaluation studies.
- There is a growing appreciation of the significance of urban wilderness, as the main type of wilderness experienced by young people growing up in cities.
- Participatory approaches, involving young users in the design - and even construction - of urban playspace projects is the recommended approach for making urban outdoor space, including urban wilderness, relevant to young people.
- The nature of wilderness experiences is expected to change in the 21st century, in the direction of faster, more structured, sanitised and mediated experiences of commodified nature.
- Utilisation of wilderness and natural settings for physical exercise, recreation, other structured or unstructured leisure activities and volunteering can make a significant contribution towards the realisation of the national standards proposed in *Youth Matters*.

1.2.13 References

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Note. See WASYP 2: Individual Literature Reviews (separate document) for the individual reviews of the key items of literature.