

# Children and the natural environment: experiences, influences and interventions - Summary

**Natural England commissioned a literature review to inform its developing programme of work to encourage more children to engage with the natural environment. As well as supporting the design of delivery interventions, the review has identified research required to strengthen the evidence base under-pinning this area of work.**

## What was done

The review was designed to support, or challenge, a series of working assumptions about the relationship of children with the natural environment. It did this by reviewing existing literature to find empirical and anecdotal evidence; and by collecting information on a range of existing initiatives which encourage children to engage with the natural environment.

The University of Sheffield undertook the review and prepared a report which is available on Natural England web site at URL: <http://naturalengland.etraderstores.com/NaturalEnglandShop/NECR026>.

## Results and conclusions

Children's relationship with the natural environment changes with age from the age of wonder in early childhood, through physical engagement in middle childhood, to a detachment from it with the increasing socialisation of adolescence and re-engagement in early adulthood.

Experience of the natural environment provides for a range of developmental and both physical

and mental health benefits. In some of this research there is clear evidence that the greener the space the greater the benefits.

There is some evidence which indicates that childhood experiences can influence adult values and behaviours with respect to the natural environment.

The evidence reveals that children use a wide range of open spaces, often not specifically dedicated to them, which allow them to engage with the natural environment. Within these spaces children can, and do, undertake a wide range of activities which include play, walking, cycling, nature conservation and gardening, all of which enable them to engage with the natural environment. Over the years it appears that there has been a decrease in children playing outdoors, in spaces close to home, and an increase in play in designated spaces. All of these can result in a decrease in opportunities for children to engage in the natural environment.

There is a culture of fear, fuelled by the media, which is underlain with fear about danger and safety, traffic,

## Children and the natural environment: experiences, influences and interventions - Summary

other physical hazards, litigation and negative images. This culture of fear affects adults, but to some extent children as well, and it is not clear to what extent this is influenced by the adult fears. The culture of fear is expressed by factors such as children not being allowed to go far from home and not being allowed to go outdoors unaccompanied.

There are also a set of social concerns for children, about being in the natural environment. These include the attitudes and behaviours of adults, both family and non family members, and other children, sometimes older and in gangs. Indoor activities, including watching television, competes with children's time with respect to spending time outdoors in the natural environment.

For many decades the quality of outdoor spaces, dedicated specifically for children, have been criticised for not being designed well and thus providing for only limited opportunities. A range of pieces of research provide evidence to the elements in the landscape which are beneficial in supporting a wide range of children's activities.

The evidence from the United States (Kaplan and Kaplan, 2002, Balling and Falk, 1982) has identified differences of natural environment preferences for different age groups. There is, however, a lack of evidence from Europe and particularly England, about the different experience of the natural environment for the different stages of development: stage of wonder/natural attraction, stage of exploration/physical engagement, stage of detachment/socialisation and then re-engagement (Sorel, 1990; Bateson and Martin, 1999). Research investigating development focused on these four age groups would therefore be valuable.

There is also a lack of evidence from England about the influence that childhood experiences of the natural environment have on adult values and behaviours. Thus further research in this area is required.

Contemporary research needs to complement the studies involving large numbers of children from the 1970s, 1980s and 1990s (DoE, 1973; Moore, 1986, Hillman and Adams, 1970 and 1992). Repeat studies of these key pieces of work is one possibility.

Risk and fear of risk is the main hindrance to children and young people benefitting from engaging with the natural environment. Research is needed to identify how real the risks are and the differences of perception of these risks between children and adults and between the perceptions and the reality of the risks. To further understand how children's access to the natural environment and freedom to play has changed over the years a study could track how different generations of one family have used the natural environment. This would build on the case study undertaken with the Thomas family in Sheffield.

Why don't children get out more? The answer to this might be more complex than blaming the television or computer and the 'culture of fear'. Further research exploring this could focus on children and their opinions and experiences.

### Natural England's viewpoint

The research brings together a wealth of evidence about the relationship between children and the natural environment. The evidence is summarised, reviewed and organised to provide easy reference to the main sources of robust evidence. It is apparent that some of the theories about children and the natural environment include personal arguments and speculations based on intuitive knowledge, common sense and in some cases a certain tendency to nostalgia. Hard evidence is more difficult to find especially in the English and United Kingdom context. There is also a lack of both longitudinal studies and repeat studies which can verify changes over time within a specific population or location.

### Selected references

BIRD, W. 2004. Natural Fit: Can green space and biodiversity increase levels of physical activity? RSPB.

## Children and the natural environment: experiences, influences and interventions - Summary

BIRD, W. 2007. Natural Thinking: Investigating the links between the natural environment, biodiversity and mental health, RSPB.

COLE-HAMILTON, I, HARROP, A. AND STREET, C. 2001. The Value of Children's Play and Play provision: A systematic Review of Literature. N.P. Institute.

DEPARTMENT FOR CULTURE MEDIA AND SPORT. 2000. Best Play: What play provision should do for children (published by National Playing Fields Association).

GLEAVE, J. 2008. Risk and Play: a literature review for Play Day 2008. London: National Children's Bureau.

LACEY, L. 2007. Street Play: a literature review for Play Day 2007. London: National Children's Bureau.

LESTER, S. AND MAUDSELY, M. 2006. Play, Naturally: A review of children's natural play, London: Play England/National Children's Bureau.

MUNOZ, S-A. 2009. Children in the Outdoors: a literature review, Sustainable Development Research Centre on behalf of the National Sustainable Development Centre with support from the Forestry Commission, Forres, Scotland.

ROE, J. 2006. Wild adventure space for young people: Project Review – Survey of Findings, Prepared for the Countryside Agency, English Nature and Rural Development Service, Edinburgh: OPENspace Research Centre.

TRAVLOU, P. 2006. Wild adventure space for young people: Literature Review. Prepared for

the Countryside Agency, English Nature and Rural Development Service, Edinburgh: OPENspace Research Centre.

### Further information

For the full details of the research covered by this information note see Natural England Research Report NERR040 - *Children and the natural environment: experiences, influences and interventions - Summary*.

Natural England Research Reports and other technical publications are available to download from the Natural England website:

[www.naturalengland.org.uk](http://www.naturalengland.org.uk).

For further information contact the Natural England Enquiry Service on 0300 060 0863 or e-mail [enquiries@naturalengland.org.uk](mailto:enquiries@naturalengland.org.uk).

### Report authors

Helen Woolley, Laurence Pattacini and Alison Somerset Ward, The Department of Landscape, University of Sheffield.

### Keywords

Children, diversity and equality, education, greenspaces, health and well-being, play, recreation and access, social inclusion, sustainable communities.

You may reproduce as many individual copies of this report as you like, provided this is not for commercial purposes, and such copies stipulate that copyright remains with Natural England, 1 East Parade, Sheffield, S1 2ET.

© Natural England 2011