

Benefits of connecting children with nature



Research in support of *Investing in Conservation Education for a Sustainable and Prosperous Future**



Time in nature is not leisure time; it's an essential investment in our children's health.¹

There is growing evidence that children are increasingly disconnected from the natural world. Without direct experiences in nature, research findings suggest that children are missing opportunities to enhance their health and well-being, and to develop responsible long-term environmental behaviour.



Evidence of disconnect

... one of the greatest causes of the ecological crisis is the state of personal alienation from nature in which many [children] live.²

In an increasingly urbanised world—with television, computers, and extracurricular activities competing for time—fewer children have the opportunity to enjoy playing in nature.^{1,2,3,4} Nature-deficit disorder¹ describes the detrimental effects on humans as a result of this increased divide between children and nature.

Today, kids are aware of the global threats to the environment, but their physical contact, their intimacy with nature, is fading.¹

A number of recent international surveys indicate that fewer children are experiencing nature directly, with the majority of children playing indoors more often than out.^{1,5,6,7,8} The surveys highlight that many young people are 'glued to the virtual world' and are far removed from nature, lacking knowledge of biodiversity and awareness of its importance. They conclude that further effort is needed to make nature more available to children, and to inform and empower a future generation of environmental champions.

* National Education Strategy 2010–2030

Photos from top: Snorkelling. Photo: Catherine Tiffen.
Tree climbing. Photo: P. Jacobson.
School of grey drummer. Photo: James Marsden.

The benefits of a childhood connection with nature

Many studies show the positive links between direct experiences in nature and children's mental, emotional and physical health and well-being.^{3, 9, 10, 11}

The studies show that regular direct access to nature can:

- Increase self esteem and resilience against stress and adversity.
- Improve concentration, learning, creativity, cognitive development, cooperation, flexibility and self-awareness.
- Prevent childhood obesity.

Research has also shown that through positive experiences in nature, children will develop their love of nature and a foundation for the development of responsible environmental behaviour.^{4, 11} Studies of adults who demonstrate a commitment to protect the natural world suggest that childhood experience with nature plays a critical role in determining life attitudes, knowledge or behaviours regarding the environment.^{12, 13, 14}

Effective approaches to connecting children and nature

We need to allow children to develop their biophilia, their love for the Earth, before we ask them to academically learn about nature and become guardians of it.⁴

Research has shown that empathy with and love of nature grows out of children's regular contact with the natural world.^{4, 15} Hands-on, informal, self-initiated exploration and discovery in local, familiar environments are often described as the best ways to engage and inspire children and cultivate a *sense of wonder*.^{4, 16, 17} These frequent, unstructured experiences in nature are the most common influence on the development of life-long conservation values.¹⁸

A number of authors talk about the importance of the middle years (6 to 12 years old) for the development of the child's relationship with the natural world.^{3, 4} This is a time where the sense of wonder of early childhood is transformed to a *sense of exploration*.¹⁷ Research found that participation with nature before age 11 is particularly potent in shaping both environmental attitudes and behaviours in adulthood.¹² This foundation of empathy and connection with nature may then extend into environmentally responsible actions and empowerment, as the child grows older and discovers opportunities to develop pro-environmental behaviours.⁴

¹ Louv, R. 2005: Last Child in the Woods. Atlantic Books, London.

² Pyle, R. 1993: The Thunder Tree: Lessons From an Urban Wonderland. Houghton Mifflin, Boston.

³ Kellert, S.R. 2005: Building for life. Island Press, Washington.

⁴ White, R.; Stoecklin, V.L. 2008: Nurturing children's biophilia: developmentally appropriate environmental education for young children. White Hutchinson Leisure & Learning Group. www.live-learn.org/resources/teachers/A_Sense_of_Place_Conference/Biophilia.pdf (viewed 5 January 2011).

⁵ AVG 2011: AVG study shows young kids learn tech skills before life skills. www.avg.com/ww-en/press-releases-news.ndi-672 (viewed 28 January 2011).

⁶ Airbus 2009: The Green Wave programme: research results. www.cbd.int/doc/groups/youth/greenwave/greenwave-research-results-summary-2009-en.pdf (viewed 5 January 2011).

⁷ Airbus 2010: Bio-Index Report. www.airbus.com/fileadmin/media_gallery/files/reports_results_reviews/Report_TheBio-Index2010.pdf (viewed 5 January 2011).

⁸ Natural England 2009: Childhood and Nature: A survey on changing relationships with nature across generations. England Marketing, United Kingdom.

⁹ Children and Nature Network 2009. Research and Studies, volumes I-IV. www.childrenandnature.org (viewed 5 January 2011).

¹⁰ Kahn, P.H.; Kellert, S.R. 2002: Children and Nature. MIT Press, Cambridge.

¹¹ National Environmental Education Foundation 2008: Improved health from the natural environment: Where's the evidence? www.peecworks.org/PEEC/PEEC_Research/01C101B8-007EA7AB.1/NEEF%20Childrens%20Health%20FactSheet.pdf (viewed 5 January 2011).

¹² Wells, N.M.; Lekies, K.S. 2006: Nature and the life course: pathways from childhood nature experiences to adult environmentalism. *Children, Youth and Environments* 16(1): 1-24.

¹³ Chawla, L. 1999: Life paths into effective environmental action. *The Journal of Environmental Education* 31(1): 15-26.

¹⁴ Chawla, L.; Cushing, D.F. 2007: Benefits of nature for children's health—Fact sheet #1, April 2007. Children, Youth and Environments Centre for Research and Design. www.peecworks.org/PEEC/PEEC_Research/01C101B8-007EA7AB.0/Benefits_of_nature_Fact_Sheet_1_April_2007%5B1%5D.pdf (viewed 5 January 2011).

¹⁵ Cimino, A. 2005: The gap between environmental values and conservation behaviours. www.leapfrogco.com/writingsamps/gap.doc (viewed 5 January 2011).

¹⁶ Carson, R. 1998: The sense of wonder. Harper Collins, New York.

¹⁷ Sobel, D. 2008: Childhood and nature. Stenhouse Publishers, Maine.

¹⁸ White Hutchinson Leisure & Learning Group. Children's Learning Environment eNewsletter, Vol. IX, No. 2, Summer 2010. www.whitehutchinson.com/news/learnnews/2010_summer (viewed 5 January 2011).

Photos from left: Pōhutukawa flower. Photo: Sam O'Leary.

Coastline of Great Barrier Island (Aotea Island) at sunrise. Photo: Kim Westerskov.

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