

Green Time



The Benefits of Spending Time in Nature

**Fancy being prescribed green time,
“Take 2 hours a day for excellent physical
and mental health.”**

**Fight depression, anxiety, stress and cancer
with a dose of green time!**

Too good to be true? Perhaps not...

By Kylie Robertson

In April this year in Melbourne I attended the inaugural international *Healthy Parks, Healthy People* congress. This talk fest was all about the health benefits of spending time in nature. 5 days, 37 countries represented, over 1200 different talks and workshops to attend – it was mind boggling!

For many years, I have had an intense interest in children spending time in nature, and in the amazing effects this has. During the same period, there has been a decline in the amount of time the majority of children spend in nature. Over the last 12 years, I have read everything I could on the subject but, until very recently, there has not been much available. Suddenly, there were hundreds of people from all over the world in my nearest city talking about it!

For the Congress, Parks Victoria commissioned Deakin University to undertake a literature review on research into the links between mental health and well-being and the availability of Green Spaces. The Deakin report found:

Growing evidence shows that access to the natural environment improves health and well-being, as well as preventing disease and helping people recover from illness. Experiencing nature in an outdoor environment can help tackle mental health problems, obesity, and coronary heart disease. In fact, it is recommended that people living in towns and cities should have an accessible natural green space of at least two hectares in size, located no more than 300 metres (or five minutes walking distance) from home.

Usually we encourage people to spend time in nature for the benefit of nature. The theory goes that people will love and care for nature more if they spend time with her. Personally, I don't think it's as simple as that. I think we actually build a relationship with nature from our earliest childhood experiences and, as we spend more time in nature and learn more about it and ourselves, we become closer to it.

Unfortunately, the astronomical registration fee prevented me from attending the Congress for the whole week but I was amazed at the amount of people that were there from all over the world and the things they had to say about the health benefits of spending time in nature.

As you may have noticed from my last article, I am a fan of Richard Louv and his book *Last Child in the Woods – Saving Our Children from Nature-Deficit Disorder*. So, with limited budget, I attended one of the days on which Richard was a keynote speaker. The other keynote speakers that day were Professor Tim Flannery, and Kathleen Frith, Director of Health and Environment at Harvard Medical School. There were also heaps of other great talks to choose from.

Richard's 30 minute talk was amazing. I am ashamed to say that I still haven't finished his book. (This is however not surprising for me. I recently lent a dear friend some books and discovered bookmarks about three quarters of the way through all of them... hmm not good at finishing things or bored easily?) Anyway Richard's talk was a concise and effective summary of what *Last Child in the Woods* and nature-deficit disorder is all about. It was a very deep and moving talk, he spoke of his and other

adults' experiences in nature as children and how special places from childhood hold a very special place in the heart of the adult. He spoke of the amazing research on the benefits of these experiences and also the alarming statistics on children's health and correlating decline of free play in nature. I felt immense sadness at the thought of being one of the generations to be the last child in the woods. In just one generation, we have gone from 70% of parents having spent time playing freely in nature, knowing and owning our special places to only 30% of those people's children having similar experiences. Louv did state that those are American statistics and perhaps in our beautiful country we are doing better. We are certainly aware of the issue, researching it and implementing programs very rapidly. Richard praised Australia saying, "Some of the best work on this issue is being conducted in Australia." There are now volumes to read on the subject. There was a lot for Richard to report on from America. The Children & Nature Network (www.childrenandnature.org) has been born and people love it, are supporting it and getting active all over the world. A movement has begun.

The idea that nature has a positive effect on well-being is not new. The Deakin report states:

The conviction that contact with nature, for example through viewing landscapes that include vegetation, water and other natural features, ameliorates stress and benefits humans in general, including people in healthcare settings, is evident as far back as the earliest documented histories of China, Greece and Persia. Since the early 1980s, environmental psychologists have studied the health effects of contact with nature. During that time there has been a growing acknowledgement that humans depend on nature not simply for material requirements such as water, food and shelter, but also for their emotional, psychological and spiritual needs.

I was pleased to observe that every talk at the Congress was about the benefits, rather than nature-deficit disorder and the negative effects. It does, however, concern me greatly that all the people I know working in the field of conservation spent their childhoods immersed in nature, not studying it, but just being in it, playing in it. They developed connections to places and, unknowingly, gained the benefits of time in nature. This connection and the nurturing they felt from being in nature extended to a need to work in it as well. My concern is that too few children today have the same base and will not have the same connection and care for nature in the future. "This is easy to hear and understand," you may say, "coming from a conservationist. Of course you're going to think that, you're a greenie!" Yes I



Photo: Colita Scott

know, I agree. This is exactly why I was very interested to hear the talks of people coming from the health sector.

For example, I attended a talk by Amberlee from WA's equivalent to VicHealth on their campaign for mental health. They have initiated mental health programs focussing on preventing problems. They are targeting everyone, not just those at risk of depression, with their, *Feeling Blue? Act Green* campaign. They have run TV advertisements (hmm, fight fire with fire) promoting the ABCs of *Feeling Blue? Act Green*.

Well, fortunately for us, our children aren't stuck in school and we can, and very often do, follow these ABCs, in fact these ABCs could very well be my plan for happy home education not just a promotional brochure from Mentally Healthy WA.

Another very interesting presentation I saw was by Kurk Beil, a renowned American Naturopath, who began by

Feeling blue? Act green!

It seems that watching wildlife shows, exploring parks and gardens, looking at fabulous mountain and ocean views, and getting away from it all to the bush are not only pleasurable, but are actually good for us!

Eminent biologists, psychologists and health professionals are showing that contact with nature – whether through parks, natural bush, pets or farm animals – helps us recover from stress and mental fatigue, helps us relax and puts us in a good frame of mind.

Of course, most of us know this intuitively and it's probably why we are drawn to nature instinctively. We all know that a walk on the beach, down a bush track or in a park is good to clear the head when we feel a little tired or stressed.

So, next time you are feeling like a lift, 'act green': do some gardening, pat the cat or dog, take a walk around the park or head down to the water for some time out. Better still, don't wait until you're tired or feeling flat. Act green more often. Being in touch with nature makes us feel good, builds good mental health and helps beat the blues. And it's as easy as A-B-C.

Act – do some gardening; take a walk around the local park; watch a wildlife documentary; take time to watch the sunset; spend time with pets...

Belong – get a group together for a picnic in a natural setting; visit a wildlife sanctuary with friends; join a hiking group...

Commit – become a 'civic environmentalist'; join a tree planting group; volunteer to keep your local parks & gardens clean; take up orienteering; learn more about ecology; offer to take a home-bound person out to a park...

Being active, having a sense of belonging, and having a purpose in life all contribute to happiness and good mental health.

For counselling services call Lifeline on 1300 13 11 14



For further information go to: www.mhca.org.au MHCA/ISS

Special thanks to the Mentally Healthy WA Act-Belong-Commit Campaign

asking the audience who had heard of a naturopath and was surprised at the large positive response he got. He talked of the healing power of nature and, as one would expect, he had some amazing large words like psychoneuroimmunology (which turns out to be the study of the interaction between psychological processes and the nervous and immune systems.) He basically said that we are programmed to have access to nature – the result of millions of years of evolution, I guess - and we feel stressed in urban environments. Some of us are aware of this, some not. He was using ecotherapy and had some interesting case studies of patients who, after failing to respond to many treatments and techniques, made miraculous recoveries attributed to time in nature. Being taken outside to sit in a beautiful natural space allowed the recovery to happen.

Some may say that none of this is surprising. Perhaps it is instinctive knowledge that we all inherently know. Maybe the fact that we all inherently know that we benefit from time in nature can explain the amazing popularity of “Forest Bathing” or “Shinrin-yoku” in Japan. The last talk I will mention was by a Japanese Professor, QingLi of Nippon Medical School, who is very interested in the phenomenon of “Forest Bathing” and its benefits. Fortunately he had a great Powerpoint presentation prepared because his English was, let’s say, not quite ready for his English-hearing audience. Apparently, “Forest Bathing” has become very popular in Japan, a forest bathing trip consists of a short leisurely trip to a forest for the purpose of relaxation and recreation by breathing in wood essential oils which are antimicrobial volatile organic compounds derived from plants. Incorporating forest bathing trips into a good lifestyle was first proposed in 1982 by the Forest Agency of Japan. It has now become a recognised relaxation and/or stress management activity in Japan. As popularity increased, the Ministry of Agriculture, Forestry and Fisheries of Japan initiated a research project between 2004 and 2006 to investigate the therapeutic effects of forests on human health from a scientific perspective. After three years, the project team has obtained a lot of results on forest medicine. They have found that forest bathing trips reduce the concentration of cortisol in saliva, reduce the concentrations of urinary adrenaline and noradrenaline, reduce prefrontal cerebral activity, reduce blood pressure, and stabilise autonomic nervous activity in humans.



Photo: Lyn Saint

Professor QingLi’s research involved taking blood and urine samples from his trial and control groups and measuring levels of a range of things including stress hormones and NK cells. Now NK cells are very important to us – they kill tumor cells and virus-infected cells. QingLi found that when measuring people’s NK levels before, during and after forest bathing the NK cells increased by about 30%, staying at a higher level and tapering off but still elevated over the 30 day period after the forest bathing trip. The trial group walked around 3-4km over a 6 hour period, not very fast, but the benefits couldn’t be attributed to the social aspects as the control group, who walked in the city, had no increase in NK cells at all. According to QingLi, NK cells can kill tumor cells by releasing anticancer proteins, and forest visits may therefore have a preventive effect on cancer generation

and development. In addition, forest trips significantly reduce salivary cortisol (the stress hormone).

Amazing! There is scientific evidence that spending time in forests is very very good for your health and it may help to prevent cancer. Before QingLi’s research there had been a lot of research on the psychological benefits of forest bathing. The results of a study using the Profile of Mood States (POMS) test demonstrated that a forest bathing trip significantly increased the score for vigour and decreased the scores for anxiety, depression, and anger. Habitual forest bathing may help to decrease the risk of psychosocial stress-related diseases.

The benefits of green time to children seem very clear. The Deakin report sums up well:

Research evidence shows that close proximity to

green spaces is clearly associated with reduced prevalence of depression, anxiety and other health problems. The relationship has been shown to be strongest for children and people with low incomes...

The outdoors is believed to be one of the most suitable and favourite places for children to indulge in free play and gross motor activity, due to the presence of trees and flowers, among other features. This type of setting is described as an enriched environment and is believed to have multiple functions by providing both a platform for play, as well as objects to interact and play with.

An enriched environment opens avenues

for developmental benefits in older children including learning and memory; opportunities to accrue and display decision-making skills; and problem solving and creative thinking. Younger children can engage in imaginative play, which is considered a foundation of social and cognitive development. Many researchers believe that playing in outdoor settings at home, camps and schools has long-term benefits for physical, social, emotional and cognitive development in children. It is understood that key elements of child development are fostered through contact with nature such as:

- developing a sense of identity
- autonomy
- psychological resilience
- learning healthy behaviours.

Children who experience high levels of contact with nature are reported to have higher levels of self-worth and higher cognitive function.

Deakin also reports that researchers have found a relationship between myopia (near-sightedness) and time spent indoors. A study of Sydney 12-year-olds found a

lower presence of myopia in those children who spent more time outdoors. The 12-year-olds with the highest levels of near-work activity and lowest levels of outdoor activity were two to three times more likely than their peers to develop myopia.

So, spending time in nature, as many of us intuitively know, is very, very good (if not essential) for our health and well being. So, what are you waiting for? Make a natural journal for or with your children (the black art journals are great, spiral bound and thicker paper which is great when sticking plants in them), get together with other home educators for regular nature walks, or come on a Wildthings Camp. Get out there!

For more info contact me at
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Reference

Townsend, Maria & Weerasuriya, Rona: *Beyond Blue to Green: The Benefits of Contact with Nature for mental health and well-being*. Deakin University April 2010



Nature Activities for Kids and Families

Here are some activities for your family to help avoid nature-deficit disorder. Many of these are adult-supervised, but remember that one of the most important goals is for our children to experience joy and wonder every day, and for them to be encouraged to create their *own* nature experiences. As they grow older, they will expand the boundaries of their exploration.

1. Invite native flora and fauna into your life. Maintain a birdbath. Replace part of your lawn with native plants. Build a bat house. Many local councils have free booklets or posters on the indigenous plants and animals of the area, ask them to send you some, also ask them where your local indigenous nursery is.
2. Visit your local indigenous nursery, the vast majority of them are not-for-profit and welcome volunteers, they will show you how it all works and share their knowledge in exchange for some help.
3. View nature as an antidote to stress. All the health benefits that come to a child come to the adult who takes that child into nature. Children and parents feel better after spending time in the natural world - even if it's in their own backyard.
4. Help your child discover a hidden universe. Find a scrap board and place it on bare dirt. Come back in a day or two, lift the board, and see how many species have found shelter there. Identify these creatures with the help of a field guide. Return to this universe once a month, lift the board and discover who's new.
5. Revive old traditions. Collect bugs and watch, draw or photograph them before releasing them. Make a leaf collection. Keep a terrarium or aquarium. Go yabbying – tie a piece of liver or bacon to a string, drop it into a creek or pond, and wait until a yabby tugs.
6. Encourage your kids to go camping in the backyard. Buy them a tent or help them make a canvas tepee, and leave it up all summer.
7. Be a cloudspotter; No special shoes or drives to the soccer field are required for “clouding.” A young person just needs a view of the sky (even if it's from a bedroom window) and a guidebook. Cirrostratus, cumulonimbus, or lenticularis, shaped like flying saucers, “come to remind us that the clouds are Nature’s poetry, spoken in a whisper in the rarefied air between crest and crag,” writes Gavin Pretor-Pinney in his wonderful book *The Cloudspotter’s Guide*.
8. Build a backyard weather station - read *The Kid’s Book of Weather Forecasting*, by Mark Breen, Kathleen Friestad, and Michael Kline.

9. Make the “green hour” a new family tradition. The National Wildlife Federation (NWF) recommends that parents give their kids a daily green hour, a time for unstructured play and interaction with the natural world. Even fifteen minutes is a good start. “Imagine a map with your home in the center. Draw ever-widening circles around it, each representing a successively older child’s realm of experience,” NWF suggests. “Whenever possible, encourage some independent exploration as your child develops new skills and greater confidence.”
10. Take a hike. With younger children, choose easier, shorter routes and prepare to stop often. Or be a stroller explorer. Involve your teen in planning hikes; prepare yourselves physically for hikes, and stay within your limits (start with short day hikes); keep pack weight down.
11. Invent your own nature game. One mother’s suggestion: “We help our kids pay attention during longer hikes by playing ‘find ten critters’ – mammals, birds, insects, reptiles, snails, other creatures. Finding a critter can also mean discovering footprints, scratchings, scats and other signs that an animal has passed by or lives there.” Check out *Tracks, Scats and Other Traces: A Field Guide to Australian Mammals*, by Barbara Triggs.
12. Encourage your kids to build a tree house, fort, or hut. You can provide the raw materials, including sticks, boards, blankets, boxes, ropes, and nails, but it’s best if kids are the architects and builders. The older the kids, the more complex the construction can be. For understanding and inspiration, read *Children’s Special Places*, by David Sobel. *Treehouses and Playhouses You Can Build*, by David and Jeanie Stiles describes how to erect sturdy structures, from simple platforms to multi-story or multi-tree houses connected by rope bridges.
13. Plant a garden. If your children are little, choose seeds large enough for them to handle and that mature quickly, including vegetables. Whether teenagers or toddlers, young gardeners can help feed the family, and if your community has a farmers’ market, encourage them to sell their extra produce. Alternatively, share it with the neighbours or donate it to a food bank. If you live in an urban neighbourhood, create a high-rise garden. A landing, deck, terrace, or flat roof can accommodate several large pots, and even trees can thrive in containers if given proper care.
14. Keep a minibeast check out www.minibeastwildlife.com.au
15. Raise butterflies-from egg to caterpillar to chrysalis to emerging monarch. The website www.zoo.org.au/Learning/Resources/Butterfly_Eggs sells them and tells how to do it.
16. Keep a frog or get a tadpole kit. See <http://frogs.org.au/arc/frogs.html> for details. Remember you need a permit, information is on the website
17. Collect stones. Even the youngest children love gathering rocks, shells, and fossils. To polish stones, use an inexpensive lapidary machine – a rock tumbler.
18. For more information, see solutions presented throughout *Last Child in the Woods*. Also, visit the non-profit Children & Nature Network <http://www.childrenandnature.org> for more ideas for your family and community, including an action guide for change as well as to read news and the latest research. Connect with the efforts of others around the world.
19. Make a Nature Journal with/for your children. Make a cover for a book (nature inspired of course). Sew it, felt it, cut and paste it. This is a special treasure to keep and use as the child likes.
20. Take your nature journal on regular nature walks with other home educators – stick leaves or feathers in it and try to identify them, do drawings, rubbings or put photos in it.
21. Start a nature walk group with family, friends and other home educators, source and invite local specialists in birds, fungi, plants, geology to take your group on a walk. They are usually very keen to share their passion with others, especially children.

Adapted from Richard Louv’s *Nature Activities for Kids and Families* at <http://richardlouv.com/children-nature-resources>.

