
THE The Colebrook Land Conservancy NEWSLETTER

"In Land We Trust"

Spring 2019



The Call of the Wild

When we were children, we headed out after school nearly every day to play in the woods and fields. Instinctively, we felt carefree and happy, though we didn't exactly know why. In fact, there is a growing body of evidence among scientists and educators worldwide that shows how spending time in the woods is not only physically and emotionally beneficial to people of all ages, but also promotes crucial emotional and intellectual development in children.

Entomologist and ecologist Edward O. Wilson found that humans have a deep biological attachment and urge to affiliate with other forms of life, which he calls "biophilia." In other words, the need to be close to nature is innate in all of us.

Look at an urban dweller's efforts to interact with the natural world, by nurturing an enlivening pot of ivy, or a philodendron plant, walking in the park, or keeping a pet.

For many people, a superficial connection to nature is not enough; they prefer to live in rural areas. Here in northern Litchfield County, for instance, people hike, fish, cycle, hunt, ski,

or even golf, partly as an excuse to be in the woods, "in nature."

The Japanese have a term for being in the woods, calling it "forest bathing", or Shinrin yoku, and embrace it as a proven therapy for healing or preventing various psychic and physical ills. Indeed, scientific studies in Japan and elsewhere have shown that taking walks in the forest lowers blood pressure and heart rate, reduces stress, relieves some types of depression, increases ability to focus, even in children with ADHD, accelerates recovery from surgery or illness, increases energy level, improves sleep and may even boost the human immune system.

In fact, some scientists attribute important healing properties to phytoncides, a volatile oil compound found in many trees and plants that protects them from unwanted insects. In a paper published by scientists at the Nippon Medical School in Tokyo, Japan, in 2009, researchers explained what occurred when they released these volatile oil compounds into the air and measured their effect on human immune function in twelve healthy males staying overnight at an urban hotel over the course of three



“Nature holds the key to our aesthetic, intellectual, cognitive and even spiritual satisfaction.”

- E. O. Wilson



days. At the end of the experiment, they documented, together with reduced stress hormone levels, an increase of killer cell activity and a significant decrease in the percentage of T-cells, all of which is characteristic of a healthier immune system.

A recent article in *Psychology Today* by Dr. Richard Cytowic, a professor of neurology at George Washington University, explains why forests help reduce stress hormone levels. When our optical nerve relays the picture of a tree to our brains, it prompts our physiology to switch off the sympathetic (fight-or-flight) nervous responses and activate the parasympathetic—what he calls the rest-and-digest response—which immediately lowers blood pressure and heart rate, loosens hitherto tense muscles, calms the breath, and allows normal digestive activity. As the parasympathetic system begins to function, simultaneously levels of the stress hormone cortisol begin to drop.

A comprehensive study conducted by researchers at the University of East Anglia in Great Britain and published in July, 2018, examined data from 20 countries including the UK, the US, Spain, France, Germany, Australia and Japan. The lead author of the study, Caoimhe Twohig-Bennett, from UEA's Norwich Medical School, noted that the evidence for the study was gathered from over 140 studies based on data drawn from 290 million subjects “to see whether nature really does provide a health boost.” The conclusion, after comparing the health

data of people with little access to the outdoors to those who encountered it every day, was that there was a dramatic contrast.

“We found that spending time in, or living close to, natural green spaces is associated with diverse and significant health benefits. It reduces the risk of type II diabetes, cardiovascular disease, premature death, and preterm birth, and increases sleep duration...People living closer to nature also had reduced diastolic blood pressure, heart rate and stress. In fact, one of the really interesting things we found is that exposure to greenspace significantly reduces people's levels of salivary cortisol – a physiological marker of stress.”

When it comes to children, other recent research has shown that exposure to nature is necessary for yet another reason. As life becomes increasingly technological, children, especially, need to have unfettered time outside in order to fully develop cognitively and emotionally.

Kids are constantly bombarded with electronic stimulants. But leaving the digital amusements behind, spending time outside can be an absorbing and maturing experience. An article posted on the Smithsonian Early Enrichment Center website by Education Program Specialist Emily Porter cites an array of experts who say that “being outside in nature has cognitive benefits including better physical, mental and emotional health.” Informal Science, a National Science Foundation-funded website, reports that through play in less structured and less predictable outdoor spaces, children encounter diverse opportunities for decision-making that stimulate problem solving and creativity. This promotes executive functioning, required for lifelong success, and may lead to improved academic performance. Direct experiences with nature, as opposed to indirect and vicarious ones, provide spontaneous and unplanned immersion, challenges, and inspirations necessary for maturation and development in children.

A house of mud and sticks, roofed with leaves, stones as animals, moss as meadow, entire imaginary villages or people can be created out of natural objects and a small child's imagination. The child is not reacting to adult or digital directions, he is developing his own imagination, he is creating rather than reacting. And what he has made is not out of something a parent or teacher has given him. He alone has found, identified, specified and imagined. How pleased he must be. “I made this myself.” Magic.

At the same time, spending unstructured time in the woods allows a child to observe the living things that are there.



Watching how creatures behave in the wild—caterpillars, worms, frogs and many other woodland insects, animals and amphibians—helps children to develop empathy, one of the most important factors in building emotional intelligence.

Moreover, there is growing clinical evidence demonstrating that autistic children can learn to identify emotions in animals as a prelude to understanding humans. An observer at Green Chimneys, a school in Brewster, N.Y., with nationally recognized programs for special needs children, explains: “A student with autism fails to pick up on other people’s body language. Humans are harder to understand. Animals in a sense are purer, more consistent, more accepting. If you are kind to animals, they show their appreciation. Approaching a horse, one needs to become sensitive to subtle clues like the swooshing of the tail and position of the ears. By learning the clear body language of animals, one then learns to pick up the body language of more complicated beings, people.”

In children with ADHD, the idea that exposing them to nature could mitigate symptoms of attention-deficit and hyperactivity disorders and help them develop increased concentration was first aired in an article published by a team of researchers at the University of Illinois at Urbana-Champaign. (Faber Taylor, A., Kuo, F.E., & Sullivan, W.C. (2001). “Coping with ADD: The surprising connection to green play settings.” *Environment & Behavior*, 33(1), 54-77). In fact, subsequent research has shown that the greener a child’s everyday experiences were, the more manageable were his ADHD symptoms.

In an article written in 2015 reviewing research as far back as the 1970’s about the benefits of children’s interaction with

“The more high-tech we become, the more nature we need.”

—Richard Louv

nature, Louise Chawla, a professor in the College of Architecture and Planning at the University of Colorado, observed that “more access, proximity to, and time spent in outdoor and green spaces is positively associated with higher concentration, greater self-control, and increased memory and academic success.”

Richard Louv is a journalist, Audubon medal winner and author whose bestselling 2005 book, “*The Last Child in the Woods: Saving Our Children from Nature Deficit Disorder*,” has prompted a national debate among educators. Louv’s research led him to the conclusion that today’s wired generation spends far too little time outdoors, and links what he calls a “nature deficit disorder” to the dramatic rise in obesity, attention disorders, and depression among children, all problems which can endure into adulthood.

Being let loose in the outdoors encourages children to direct their own play in nature. Because the natural world is dynamic, its state of constant change offers rich opportunities to develop adaptability and strategic thinking and even helps build social bonds with others. The effect of participating in nature play and the memories of that pleasure will stay with a child throughout life. It will promote a love of the natural world and an understanding of the need for environmental conservation.

Children who spend time outdoors will relish it forever, for, as Richard Louv says, “we cannot protect something we do not love, we cannot love something that we do not know, and we cannot know what we do not see, or hear, or sense.”

If we want future generations to treasure this earth, send the children outside to play— and join them there!

—Sukey Wagner



Porcupines!!!

Expert Gerri Griswold will Speak at the April 13th Potluck

Gerri Griswold, Director of Administration and Development at The White Memorial Conservation Center in Litchfield, will speak at the Colebrook Land Conservancy's Annual Potluck Dinner on April 13th at 5 pm in the Town's Senior Center. Gerri is an experienced wildlife rehabilitator, licensed by Connecticut DEEP and the US Department

of Agriculture. An expert on porcupines, she gives educational presentations about these fascinating creatures to people of all ages. Gerri has spoken at libraries, schools, Scout troops and even the National Park Service and Yale's Peabody Museum. She has been featured on the cover of the Weekly Reader and was a guest on David Letterman.

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