

THE NATURE-CHILD REUNION



By Richard Louv

Americans must address the growing need for bonds between nature and children to improve the health and well-being of both

JOE, A FISHING GUIDE from Milwaukee, suggested that we stand together. "We'll look like one big animal with a lot of legs," he said. This seemed a sensible recommendation, because far across this open plain, on Alaska's Kodiak Island last summer, a bear was running toward us. It was a Kodiak brown bear, the world's largest land carnivore, an animal that can weigh up to 1,700 pounds and move at 35 miles per hour. "Let's back away from the water," Joe said. The bear crossed in front of us and leaped into the bend of the river where we had just been fishing. Young but impressive, the bear pounced and swiped at migrating salmon, and occasionally lifted his nose and bobbed his head and looked our way, then went back to his fishing. "He has to make a living, too," Joe said.

I glanced at my son Matthew, then 16, who clutched his can of pepper spray. I felt a surge of joy that outweighed any concern about safety. How fine it is, I thought, for Matthew to experience this moment, with its beauty and imposed humility.

"This kind of puts high school in perspective," he said.

Just a few years earlier, Matthew had looked at me from across a restaurant table and said quite seriously, "Dad, how come it was more fun when you were a kid?"

I had asked him to explain.

*Source: "National Wildlife" magazine, June/July 2006
published by the National Wildlife Federation*

"Well, you're always talking about your woods and tree houses, and how you used to ride that horse down near the swamp."

At first, I had thought he was irritated with me. I had, in fact, been telling him what it was like to use string and pieces of liver to catch crawdads in a creek, something I'd be hard-pressed to find a child doing these days. Like many parents, I do tend to romanticize my own childhood—and, I fear, too readily discount my children's experiences of play and adventure. But Matthew was serious. He felt he had missed out on something important.

He was right. For eons, human beings spent most of their formative years in nature. But within the space of a few decades, the way children understand and experience nature has changed radically.

When I was a boy, I was unaware that my woods were ecologically connected with any other forests. Nobody in the 1950s talked about acid rain or holes in the ozone layer or global warming. But I knew my woods and my fields, every bend in the creek and every dip in the beaten dirt paths. I wandered those woods even in my dreams.

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As I reported in my book, *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder*, a child today can likely tell you about the Amazon rain forest but not about the last time he or she explored the woods in solitude or lay in a field listening to the wind and watching the clouds move.

Parents cite several everyday reasons why their children spend less time in nature than they did. Among them: diminishing access to natural areas, competition with electronic entertainment, and time pressures, including increased homework and longer school hours.

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EDUCATIONAL BENEFITS
Children who spend time in nature are more likely to be academically successful, have better social skills, and are more likely to be environmentally conscious.

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A BROWN BEAR is only one of the many species that thrive in the world's largest forest. The author and his son spent long days with horses in the woods that were once his father's childhood playground. Photo: Robert P. Taylor/Corbis

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A 2005 report by the Kaiser Family Foundation, a nonprofit group that focuses on U.S. health-care issues, revealed that kids' average weekly electronic-media exposure is almost 45 hours, more time than most parents spend on full-time jobs. Sixty-eight percent of young people have TVs in their rooms. Half of all youths live in homes where TVs are on most or all of the time, whether anyone is watching or not. Last year, the University of California—Los Angeles Center on Everyday Lives of Families reported that during the week, parents and children are in constant motion—racing between school, games, shopping, work—and that American kids spend virtually no time in their own yards.



ON A FIELD TRIP Along California's Santa Cruz, a teacher tells fifth graders about the needs of song sparrows. The biologist has found that one year after nature projects the estimated wild birding of children and can reduce symptoms of attention-deficit disorder. One study found that such projects resulted in environmental-based programs improved math and science scores 25 percent.

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our children's world, limited in cyberspace, is shrinking in reality. A 1991 study, reported in the journal *Environment and Behavior*, found that by 1990 the radius within which children were allowed to roam on their own from home had shrunk to a sixth of what it had been in 1970. When I began to ask parents around the country why children are spending so much time indoors, I expected lack of access to nature to be at the top of their list. Many of the woods and fields where parents played as children are

gone. Yet, even in rural areas where woods still exist, parents say their children are withdrawing from nature. Even more important than availability of natural landscape is fear. This fear is felt nearly as intensely in suburban Overland Park, Kansas, as it is in urban Philadelphia. One suburban father told me, "I want to know where my kid is 24 hours a day, seven days a week. I want to know where that kid is. Which house. Which square foot. Which telephone number."

As a parent, I have felt that fear. But consider the facts. The number of abductions by strangers has been falling for years, and most abductees are family members. U.S. children are safer now than they have been at any time since 1970, and violent victimization of children has dropped by more than 80 percent, according to the 2005 Duke University "Child Well-Being Index." What has not moved is the clock-face coverage of a few magazines, continuing families to live in fear.

Society is sending an unintended message to children: Nature is the past,

FACT

SET UP AND GO
A New Zealand study found that kids who walked the land (TV screens) between 8 and 11 years old had the highest probability of graduating from college by the age of 26, independent of socioeconomic status.

**"I NEVER KNEW SPENDING THE WHOLE DAY OUTSIDE COULD BE SO MUCH FUN, I THINK TODAY WAS MORE FUN THAN MY BIRTHDAY."
—7-YEAR-OLD ON HER FIRST CAMPOUT**

electronics are the enemy, and the biggest loss is in the woods. This was a dilemma in schools, in families, even in organizations devoted to the outdoors, and it is reflected in the legal and regulatory structures of many of our consumer services... effectively banning much of the kind of play that we enjoyed as children. Yet, at the very moment when non-children that ever before are unplugged from screens, witness a finally demonstrating how important direct contact with the outdoors is for healthy human development.

Some of the most intriguing research has been reported by Harvard University scientist and Pulitzer Prize-winning author Edward O. Wilson's "biophilia" hypothesis. Wilson defines biophilia as "the urge to affiliate with other forms of life." He and his colleagues argue that humans have an innate affinity for the natural world, probably a biologically based need integral to our development as individuals.

We must relearn to experience in nature more than we know. Environmental psychologists report that exposure to nature around the home, in simple terms with a view of a natural landscape, helps promote the psychology of well-being of children. Children with disabilities gain enhanced body image and positive behavior changes through direct interaction with nature. Studies of conduct disorder programs geared toward troubled youth—especially those diagnosed with

mental health problems—show a clear therapeutic value. Some of the most interesting research has been conducted at the Human Environment Research Laboratory at the University of Illinois. Researcher there have discovered that children as young as five showed a significant reduction in the symptoms of attention deficit disorder when they engaged with nature.

Rowan also shows that which use outdoor classrooms and other methods of direct experience learning produces students with improved standardized test scores and grade-point averages and enhanced skills in problem solving, critical thinking and decision making. Last year, the California Department of Education and the American Institutes for Research revealed that only grade kids in environment-based programs improved their math and science scores 25 percent. They were also more engaged in the classroom and more open to conflict resolution. In addition, anecdotal evidence suggests that time in natural surroundings stimulates children's creativity.

Parents and policy makers need to know about this exciting, emerging body of evidence, but, for the most part, they do not.

As a result, we see the emergence of what I call "nature-deficit disorder," which is not an official medical diagnosis

NEW READING OUT TO FAMILIES GREEN HOUR

THE AVERAGE AMERICAN CHILD is exposed to four of a seven-day computer or video-44 hours a week. That means less time spent outdoors, enjoying and being connected to nature. Parents are at an odd party to blame. Many parents underestimate the danger of playing indoors. In fact, science against children in nature helps to move to do prevent our past work, making the outdoors one of the safest places for a child. To combat nature deficit disorder, NEF recommends that children participate in at least one "green hour" every day on their own and that in unstructured play, here are some ideas to get your child outside and interacting with nature:

- Go on a nature walk
- Put up a birdhouse
- Set up a herb and camp in your backyard
- Go fishing
- Go on a bike ride
- Create a backyard "mud kitchen" (the NEF offer these at www.nwf.org/greenhour.)

Our children's world, limitless in cyberspace, is shrinking in reality. A 1991 study, reported in the journal *Environment and Behavior*, found that by 1990 the radius within which children were allowed to roam on their own from home had shrunk to a ninth of what it had been in 1970.

When I began to ask parents around the country why children are spending so much time indoors, I expected lack of access to nature to be at the top of their list. Many of the woods and fields where parents played as children are gone. Yet, even in rural areas where woods still exist, parents say their children are withdrawing from nature.

Even more important than availability of natural landscape is fear. This fear is felt nearly as intensely in suburban Overland Park, Kansas, as it is in urban Philadelphia. One suburban father told me, "I want to know where my kid is 24 hours a day, seven days a week. I want to know where that kid is. Which house. Which square foot. Which telephone number."

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U.S. children are safer now than they have been at any time since 1975, and violent victimization of children has dropped by more than 38 percent, according to the 2005 Duke University "Child Well Being Index." What has increased is round-the-clock news coverage of a few tragedies, conditioning families to live in fear.

Society is sending an unintended message to children: Nature is the past, electronics are the future, and the bogeyman lives in the woods. This script is delivered in schools, in families, even in organizations devoted to the outdoors, and it is codified into the legal and regulatory structures of many of our communities—effectively banning much of the kind of play that we enjoyed as children. Yet, at the very moment when more children than ever before are unplugged from nature, science is finally demonstrating how important direct contact with the outdoors is for healthy human development.

Educational Benefits:

In a 2005 study by California's Department of Education, at-risk students in an outdoor education program increased science test scores by an average of 27 percent.

Some of the most intriguing research has been inspired by Harvard University scientist and Pulitzer Prize-winning author Edward O. Wilson's "biophilia" hypothesis. Wilson defines biophilia as "the urge to affiliate with other forms of life." He and his colleagues argue that humans have an innate affinity for the natural world, probably a biologically based need integral to our development as individuals.

We may need experience in nature more than we know. Environmental psychologists report that exposure to nature around the home, or simply a room with a view of a natural landscape, helps protect the psychological well-being of children. Children with disabilities gain enhanced body image and positive behavior changes through direct interaction with nature. Studies of outdoor-education programs geared toward troubled youth—especially those diagnosed with mental-health problems—show a clear therapeutic value. Some of the most interesting research has been conducted at the Human-Environment Research Laboratory at the University of Illinois. Researchers there have discovered that children as young as five showed a significant reduction in the symptoms of attention-deficit disorder when they engaged with nature.

Research also shows that schools that use outdoor classrooms and other methods of direct-experience learning produce students with improved standardized test scores and grade-point averages and enhanced skills in problem-solving, critical thinking and decision-making. Last year, the California Department of Education and the American Institutes for Research revealed that sixth-grade kids in environment-based programs improved their math and science scores 27 percent. They were also more engaged in the classroom and more open to conflict resolution. In addition, anecdotal evidence suggests that time in natural surroundings stimulates children's creativity.

Parents and policy makers need to know about this exciting, emerging body of evidence, but, for the most part, they do not.

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Get Up and Go:

A New Zealand study found that kids who watched the least TV, especially between 5 and 11 years old, had the highest probability of graduating from college by the age of 26, regardless of IQ or socioeconomic status.

As a result, we see the emergence of what I call “nature-deficit disorder,” which is not an ordained medical diagnosis but my shorthand description of the human costs of alienation from nature. Among them: diminished use of the senses, attention difficulties and higher rates of physical and emotional illnesses. This disorder damages children and shapes adults, families, whole communities and the future of nature itself. Clearly, we need a nature-child reunion.

I am not suggesting that we bring back the free-range childhood of the 1950s. Perhaps those days are over. But we can create safe zones for solitary nature exploration. We can weave nature experiences into our classrooms, and nature therapy into our health-care system. We can create new programs to introduce the young to the outdoors, and we can expand current programs. We can support the green urbanism movement, which rejects the traditional distinction between what is urban and what is natural. We also can challenge environmental organizations across the country to take this issue seriously—for if the divide between children and nature continues to widen, who will be the future stewards of the Earth?

The National Wildlife Federation has launched several major programs to get kids directly involved in the outdoors, including its *Backyard Wildlife Habitat*[™] program, the Great American Backyard Campout, and The Green Hour Forum, a new national campaign to persuade parents to encourage their children to spend an hour a day in nature, whether that nature is found in a forest or a backyard.

The Greens Get It:

A recent Roper study found that environmentally knowledgeable people are 50 percent more likely to recycle and to avoid using chemicals in yard care.



WHEN CHILDREN only a third from the 40s aren't really that they spend with electronic media. They can find natural fascination in something as simple as a monarch butterfly on a leaf. For and for the reasons are among the more elegant creatures that might be seen in cities. Some scientists believe humans have an innate affinity for the natural world, probably a biologically based need emerging in development. And a need going unfulfilled in children increasingly reared indoors. Our solution: Get that outside for an hour a day.

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—9-YEAR-OLD IN TEXAS**

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Above all, parents must reassess the role that the natural world plays in healthy child development. Forty percent of America's youngsters show early signs of heart and circulation problems, according to one report. So where is the greatest danger? Outdoors, in the woods and fields? Or sitting on the couch in front of the TV?

To my delight, both my sons understand the healing qualities of nature as well as its more invigorating aspects. Matthew has claimed fishing as his own medicine, and I suspect it will help him thrive for the rest of his life. He certainly knows that nature cannot be summarized by greeting-card images and that its complexities are instructive. Not long before we traveled to Alaska, he wrote an essay for his English class about fishing. "The thought of spending more than a few months away from wilderness of some kind is almost unthinkable," he wrote.

Not that being in nature solves all his problems. "Most people think nature offers a form of escapism, but one's life is hard to escape when it is put in perspective by the things you see on a river, or in the mountains or the desert," he wrote. "You're alone, which for me means all the dark, sticky matter of the psyche comes bubbling to the top to be mulled over. The scenery does its job, though, and soothes whatever demons I dredge up. I get so keyed into the fishing that everything except for the fish becomes hazy, and the tension in my line becomes the world."

This kind of connection is increasingly tenuous. In his book *Monsters of God*, David Quammen predicts that by 2150 all the world's top predators will be wiped out or in zoos, their genetic pool dwindling. Then, he writes, people "will find it hard to conceive that those animals were once proud, dangerous, unpredictable, widespread and kingly . . . Children will be startled and excited to learn, if anyone tells them, that once there were lions at large in the very world." Perhaps the most important measure we can take to assure the survival of our fellow creatures, large and small, is to prevent the extinction of nature in children's hearts.

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Matthew and I watched that Kodiak bear move quickly up a small ridge, straight for a cluster of the island's wild horses. Perhaps it hoped to take the little white colt among the herd. Remarkably, the horses, led by a strong palomino (more dangerous to fishermen than the bears, Joe told us), ran directly at the bear. As the horses raced forward, tails flying like flags, the bear considered a different plan.

The horses stood together and watched, and so did we, as the bear ambled along the beach and disappeared into the fog. The horses went their own way, into that same fog.

And then we were alone on the plain.

Adapted from "Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder" by Richard Louv. For more information, go to www.thefuturesedge.com. Richard Louv can also be contacted at rlouv@cts.com.



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The Groundwater Foundation has started a new project, called Water Ways, which is designed to reconnect today's youth with the environment through water. Learn more at <http://www.groundwater.org/pe/waterways.html>

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