Reconnecting Kids with Nature

New research strongly suggests that childhood experience in nature is a vital element, perhaps a necessity for healthy child development. Outdoor play develops full use of the senses, helps protect psychological well-being, improves attention-deficit disorder and reduces stress.

Yet, as of 1990, the radius around the home where children were allowed to roam on their own had shrunk to one-ninth of what it had been in 1970. Why is this happening? Limited access to nature, fear of strangers, popularity of video games, television and computers, perceived safety risks and fear of lawsuits – the list is long. Well-meaning, but frightened parents, school systems and media are keeping kids out of the fields and the woods. By moving childhood indoors, we are depriving children of a full connection to the natural world. The implications – both for children's physical and mental health and for the future of our natural resources and traditional pastimes, such as hunting and fishing – are far-reaching. Consequently, one of the most important gifts we can give a child is his or her own enthusiasm for the outdoors. ~Marilyn Wyzga, N.H. Fish and Game

Children Benefit from Outdoor Play

Richard Louv's 2005 book, Last Child in the Woods: Saving Our Children From Nature-Deficit Disorder, has received a lot of attention and moved environmental educators across the country into action. We've already seen offshoots from that national movement here in New Hampshire, including the Great Park Pursuit; the Leave No Child Inside Summit held in May 2007 in Manchester; and an in-depth Leave No Child Inside Forum coming up on November 27 at the Capitol Center for the Arts in Concord, featuring Louv as the keynote speaker.

In his book, Louv didn't invent a new problem with today's children, but rather identified and clearly articulated a concern that many of us had begun to recognize, but hadn't yet embraced. Perhaps we were slow on the uptake. The indicators were certainly there: Neighborhoods full of families with children, yet yards devoid of children playing and streets free of kids racing their bikes. National parks with a 20% decline in visitation since 1995, even in traditionally popular parks like Yellowstone. Children's daily schedules so booked with school and organized

Youth benefit academically – and in many other ways – when the outdoors is a part of their school curricula.
NEW! GLOBE Earth System Science Resources for K-4 Teachers

Connect literacy and science with the GLOBE Program’s new series of elementary storybooks and learning activities for teachers and students in grades K-4. Elementary GLOBE is a set of five storybooks and fifteen learning activities -- three for each storybook science topic. It includes a Teacher’s Implementation Guide that addresses earth system science, weather, water, seasons and soil. If you plan to collect GLOBE data with your students, it is a great introduction before taking them outside. It can also prepare younger students for more in-depth exploration later in their school careers. The Teacher’s Implementation Guide identifies connections to literacy, math, inquiry and technology. The learning activities are hands-on, creative, fun and inquiry-based. Carolyn Hemingway, of Belmont Elementary School, attended an elementary GLOBE workshop in Colorado last summer and came back excited about using the stories and the associated activities with her students.

Teachers can view and download the books and activities at www.globe.gov/elementaryglobe. The storybooks, learning activities and Teacher’s Implementation Guides can be downloaded from the GLOBE Website for free! Follow the indicated link to order hard copies of the materials for a fee. The storybooks alone are $25; while the set, which includes storybooks, activities and an Implementation Guide, plus a CD, is $39. If you are interested in an Elementary GLOBE workshop, or any other GLOBE material, please contact Jennifer Bourgeault at (603) 778-6305 or unhglobeljen@comcast.net.

OUTDOOR PLAY continued from page 1

activities that there is no free time.

Why should we be concerned that families and children are no longer playing outdoors? The number of overweight children and adolescents in our country has increased significantly since the early 1980s. During the same period, the amount of time children spend in physical education classes has gone down, school recesses have been shortened or eliminated, and sedentary activities related to personal computers, electronic games and home electronic entertainment systems have skyrocketed.

Along with proper nutrition, playing outside is an important element of a healthy lifestyle for children, one that enables them to maintain a healthy weight and overall good health. Recent research tells us that play in nature, or unstructured free play outdoors, provides many benefits to children, including enhanced creativity and problem-solving skills, focus and self-discipline. Social benefits include greater cooperation skills, flexibility and self-awareness. Emotionally, children who play outdoors are less stressed, exhibit less aggression and are happier, in general, than children that don’t play outdoors. They are also more physically competent and confident.

There is also evidence that youth benefit academically when the environment and the outdoors are part of their school curricula. Students in environment-based instructional programs score as well or better on standardized measures in reading, math, language and spelling. Additionally, the greener a child’s everyday environment, the more manageable the attention deficit symptoms are in general.

Perhaps the greatest benefit of children playing outside is for society. Through outdoor play, children develop a connection with nature and the environment that enables them to learn about the natural world and develop an understanding of and appreciation for it. Through this progression, they become adults who make decisions in their own lives and get involved in their communities in ways that will ensure the conservation of our natural heritage.

For more information about the benefits of outdoor play for children, and for links to numerous original research articles, visit the Children and Nature Network at http://www.cnaturenet.org/research/volumes.
**Spotlight on...**

**The Great Park Pursuit 2007**

*New Hampshire State Parks – Making a difference for the families of New Hampshire*

In an effort to encourage families to get outside and into the parks, New Hampshire State Parks, working with several partners, offered the Great Park Pursuit as part of a regional effort called No Child Left Inside. The six-week event provided a fun way to get children and families into the outdoors, at the same time promoting awareness of the many recreational opportunities available at New Hampshire state parks.

The New Hampshire Great Park Pursuit 2007 kicked off at Bear Brook State Park in Allenstown on May 19. Teams consisting of at least one child under the age of eighteen and one adult over eighteen registered online to participate. An astounding 83 teams, comprised mostly of families, registered for the pursuit. Nearly 95% of the teams were from New Hampshire. Pursuit activities focused on a different state park each weekend, with various partners helping each week. Partners included other state agencies, such as the N.H. Fish and Game Department and the N.H. Department of Environmental Services; non-profit organizations, such as New Hampshire projects WET, WILD and Learning Tree; and outdoor equipment retailers like Eastern Mountain Sports.

Each week, teams received daily clues as to which park they would be going to the following Saturday. Once team members figured out the park selected for the week’s activities, they sent an email to state parks staff to confirm. At the Saturday events, teams tackled suggested challenges to accomplish and places to explore. They got a chance to try activities such as fishing, shelter building, hiking, creating a sand sculpture and looking for wildlife sign. The more parks teams visited and the more activities teams completed during the six weeks, the more points they earned.

The Great Park Pursuit wrapped up on June 23 at Franconia Notch State Park. On that day, even more activities were offered, including kayaking and a nature walk, which afforded the last chances to earn points. Total points were tallied for each team for the six-week period. The four teams with the most points received one of four activity packages as a prize. Packages included items needed for an outdoor activity. A family mountain bike package included two mountain bikes and helmets. Other packages were designed to get a family out camping or fishing.

The first year was a huge success, with participating families greatly enjoying themselves. Not only did families have fun, many were introduced to state parks they had never visited before. Perhaps the most important aspect of the Pursuit is that families were brought together to enjoy each other in the outdoors.

N.H. State Parks staff is already planning for the 2008 New Hampshire Great Park Pursuit, so tune in for upcoming information at www.nhparks.state.nh.us.
To create a better future for our children, let’s help them connect with their wild roots

By Marilyn Wyzga

In the past few decades, the way children understand and experience nature has changed dramatically. A child today can tell you about the whales in the ocean, dinosaurs of the past, or trees in the rain forest, but not about what lives and grows in his or her backyard. While today’s kids are aware of the global threats to the environment, their own physical contact with nature is fading.

What can we do to help reconnect children with the outdoors? For one thing, say experts, revive recess. Roughly 40% of school districts have either eliminated recess or are considering cutting it. Some schools that still offer recess have “dumbed down” the playground by, for instance, banning running games. Without these activities that increase heart rates and improve hand-eye coordination, it’s easy to see why 17% of children are overweight.

Schools that soften the schoolyard or limit children’s engagement with the outdoors often have concerns about liability. We can accommodate that concern by creating safe zones for nature exploration. We can also weave nature experiences into our classrooms and create or expand programs to introduce youth to the outdoors.

David Sobel of Antioch New England University says schools are unintentionally spreading fear of the natural world and ecological problems. Children are savvy to current environmental issues like global warming, Sobel notes. But lacking direct experience with the outdoors, they begin to associate nature with fear and disaster, rather than discovery, joy and wonder.

A complete environmental curriculum, by contrast, engages children directly in nature while using traditional methods and current technologies to teach subject matter in the classroom. Some schools cut recess so children will have more time to study for tests. Louv argues that nature “does not steal time, it amplifies it.” Getting acquainted with nature inspires creativity and, studies show, actually improves test scores. Students who have classes outdoors improve their grade-point averages, as well as their skills in critical thinking and decision-making, and tend to be more cooperative, more engaged in the classroom and more open to conflict resolution.

Taking It to the Streets

New Hampshire may be largely rural, but the problem of nature-deficit disorder is not limited to urban areas, as naturalist Ruth Smith found when she ran an after-school program in rural Hopkinton. “Even kids who said they liked being outdoors had
little personal experience and lacked basic skills like how to navigate a trail,” she noted. Once out and about, Smith observed that the thing the kids most enjoyed was outdoor play in nature – building forts, dams and tree houses.

Even in urban and suburban areas, nature is closer than you might think. Louv recommends taking advantage of “nearby nature” – the ravine behind your house, or the little woods at the end of the cul-de-sac. Adults expect nature to be so much bigger, but to a child, that ravine is a universe. Protecting those little spaces in cities and suburbs is a step in the right direction.

Still, the No. 1 reason parents give for limiting their children’s play outdoors is fear of “stranger danger.” At a talk by David Sobel in Hancock, a local parent observed, “playing in the backyard is not safe,” even in their small, rural town. Ironically, the statistics on abductions suggest almost all are by family members, and the number of abductions has been going down for about a decade; kids are safer outside the home than at any time since the 1970s.

We think of the outdoors as being inherently risky, but indoor dwelling comes with its own risks for children. Pediatricians say they’re not treating very many broken bones anymore. Rather, they are seeing repetitive-stress injuries, childhood obesity, attention deficit disorder and the effects of indoor air pollution. Other disturbing risks associated with the online neighborhood are emerging as kids socialize in a virtual world instead of playing outside. We seem to have traded the perceived dangers lurking in nature for the potentially more threatening and permanent impacts of sitting in front of the television or computer.

**We Need Nature**

Biologically, humans are still hunters and gatherers. The evolutionary remnants of these past experiences are hard-wired into our nervous system, says zoologist Gordon Orians. Renowned naturalist E.O. Wilson takes it a step further, saying that humans have an innate affinity for the natural world, a biologically based need essential to our development as individuals. Both scientists’ work suggests a genuine physical need for nature, one that, in modern humans of all ages, is simply no longer fulfilled.

Think back to your childhood. If you’re over thirty, you likely spent time in the outdoors uninhibited – playing, making forts, climbing trees, going fishing, getting dirty. What would our lives have been like without those times?

As teachers, parents, grandparents and role models, we can spend more time in nature with children. The bonus is, when we give children the gift of nature, we gain all the same benefits they do – the stress reduction, the longer attention span, the renewed sense of wonder. We need to be passionate about re-connecting kids with nature.

**Plan the activity**

- Write out the lesson plan.
- Review every step.
- Estimate how much time you will spend.
- Make a complete list of materials you will need.
- Tell students what to wear.
- Send out permission slips.

**Prepare your students**

- Know their current knowledge level.
- Review the planned activities with the class.
- Make clear the purpose of the trip
- Give as many instructions as possible before going outdoors.

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**Children have a natural curiosity about living things that turn up under leaves, rocks or logs.**

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**WEB**

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**Checklist for Planning an Outdoor Experience**

**Choose the activity**

- Decide what you will teach.
- What are your objectives?

**Check out the site**

- Do the regulations of the area permit the activities you want to do?
- Is the site an appropriate size?
- Are there clear-cut boundaries that your students will respect as their “outer limits?”
- Are restroom and first aid facilities accessible?
- Are there any potential safety hazards? Can they be avoided?

**WEB**

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**WEB**
Wildlife Action Grants Available
Grant Application Deadline: November 30, 2007

Teachers interested in starting wildlife habitat projects can apply to the Homes for Wildlife Action Grant Program at New Hampshire Fish and Game for start-up funds. Mini-grants of up to $300 ($600 with matching funds) for projects enabling students and educators to enhance habitat for people and wildlife. For proposal packet, contact Marilyn Wynga, Public Affairs, N.H. Fish and Game Department, 11 Hazen Drive, Concord, N.H. 03301; email marilyn.c.wynga@wildlife.nh.gov; or call (603) 271-3211.

Projects Activities for N.H. English Language Curriculum

Projects WET, WILD and Learning Tree activities are now correlated to the new New Hampshire English Language Arts K-12 Curriculum Frameworks. The correlations can be found online at www.nhplt.org, www.des.state.nh.us/wet, and www.nhfg.net/Education/project_WILD.htm. Correlations to the new science frameworks, completed in September 2006, are also online.

Wonders of Wildlife

Introduce your grade 3-6 students to the wildlife resources of New Hampshire through a series of active education programs. A New Hampshire Fish and Game Wonders of Wildlife docent will come to your elementary school classroom to present one of four interactive programs: Habits and Habitats; Endangered Species; Pond Ecology; and Wetlands. Requests accepted through February 25, 2008, for spring presentations. Programs are free of charge. For a program request form, visit www.wildlife.state.nh.us/Education/ed_Wonders_of_Wildlife.htm.

2008 New England Environmental Education Conference in N.H.

Looking ahead to 2008, be sure to reserve the weekend of October 3-5, 2008, for the 42nd annual New England Environmental Education Alliance conference, which will be held at Boston University’s Sargent Center in Hancock, N.H. The conference is being co-sponsored by the New Hampshire Environmental Educators (NHEE). The event offers numerous EE-focused workshops and networking opportunities. Watch your spring Project WEB newsletter for more information.

NH Project WET Turns 10!

As most of you know, Project WET (Water Education for Teachers) is a national interdisciplinary environmental education program that uses water as its theme. The heart of Project WET is the Curriculum and Activity Guide, a 500+ page collection of more than 90 fun, innovative, water-related educational activities designed to supplement an educator’s existing curriculum. In New Hampshire, the program focuses on providing formal and non-formal Kindergarten to Grade 12 educators with water education training and materials that can be used to promote awareness, appreciation, knowledge and stewardship of water resources with youth. The N.H. Department of Environmental Services Drinking Water and Groundwater Bureau introduced the program into New Hampshire in 1997. The program has trained over 1,000 educators and has provided many school presentations on watersheds and groundwater.

The New Hampshire Project WET program turned 10 in November of 2007. The program would not be successful without the contributions of so many educators, facilitators, and partners. Thanks to everyone who has worked with the program in the last 10 years. Many more years to come! To find out more about the program, please contact the N.H. Project WET coordinator at (603) 271-4071 or wet@des.nh.gov.

NEW HAMPSHIRE PROJECT WET

Water Education for Teachers

LEAVE NO CHILD INSIDE FORUM

A community conversation about connecting children and nature. November 27, 2007, at the Capitol Center for the Arts, Concord, N.H. Morning session (9 a.m.-12 noon) is free and open to the public, featuring Richard Louv, author of Last Child in the Woods: Saving Our Children from Nature Deficit Disorder, along with a panel of distinguished guests representing New Hampshire education professionals, built environments, and health, cultural and natural environment interests. Middle school and high school teachers and college professors are invited to bring students in environmental studies, outdoor recreation, childhood development, pre-service education and related areas of study to this event. Sponsored by the national Children & Nature Network, the Sierra Club, and the New Hampshire Initiative for Children and the Outdoors. For more information, visit www.WildNH.com/ChildrenInNature.

Do you have an idea for a topic the WEB should address? If so, please contact Esther Cowles at (603) 226-0160 or info@nhplt.org.
When you want to connect children with nature, and field trip funds are running low, consider taking a look at the rich resources right around you. What could be closer than your own schoolyard? It may not seem exciting or exotic, but you’ll be pleasantly surprised to find many interesting things out there. Bring your curriculum outdoors and investigate the school grounds with your students.

In Ten-Minute Field Trips, Helen Ross Russell remarks, “Short close-to-home field trips are essential for understanding the environment…the area surrounding the school is by far the best starting point.” She continues, “Temperature changes, precipitation, air currents, pollution, the forces of disintegration and decomposition, plant and animal relationships, and people relationships are things that occur everywhere…This means that the best possible facilities for teaching environmental studies are available to all schools.” You can follow Ms. Russell’s lead and use your site as it is. You may choose to explore and inventory its features while planning to enhance it, or establish an outdoor classroom with learning lab features. The new New Hampshire science frameworks support this style of inquiry-based learning.

New Ways to (Re)Visit the Schoolyard

At a symposium, I encountered a surprising and inspiring example of using simple materials to increase the interest of a site. Ginny Sullivan of Learning by the Yard shared a video from England, titled “The Experimental Playground.” On a London schoolyard, which was entirely paved, two artists conducted a boldly unique residency program. Each day for five days, they introduced new elements to the area. Day one, they provided chalk; day two, highway cones; day three, carpet-covered platforms. On the fourth day, they enclosed an outdoor shed with black fabric, and filled it with theater lights. Each child was given plastic chips in different colors, which they exposed to the lights to see how color mixes and changes. On the last day, the platforms and cones returned.

What was remarkable about this simple maneuver was how simply changing the texture, color, or height of the grounds altered the children’s behaviors, attitudes and explorations. Throughout the week, the artist team filmed and interviewed the students interacting with the materials, the site, and each other. This information was gathered into a design for transforming the schoolyard from a barren, paved landscape to one that is conducive to creative exploration, investigation and play.

Two life science teachers, Bev Stancel and Beth Dunton, got the idea to create a green room at the Dover Middle School after attending a summer teacher institute hosted by the New Hampshire Education and Environment Team (NHEET). Their seventh graders developed this outdoor classroom around a small pond on the school site, including benches, trail stairs, a dock, and assorted bird and bat houses. Over several months, the students conducted a fundraising campaign, and then got together with their parents, teachers and WalMart volunteers to do the installation. They complemented their outdoor classroom with the painting of an indoor mural and documented the process with a slide presentation. Now “the whole school is invited to come out and use the site as a muse,” says Dunton.

Getting Started

Ready to head outside with your students? If you’ve never done it before, anticipate that they may treat it like recess. Start small. Project WILD’s Learning to Look; Looking to See is a good activity for focusing students’ attention. As on any field trip, bring along a couple extra adults, such as parent volunteers. Establish ground rules for the group before you leave the building. Have some kind of recognized signal, such as a duck call (various animal calls are available from sporting goods stores). As you progress, assemble a kit of simple teaching tools. Make sure your directions for studies or tasks are specific and broken down into parts. Homes for Wildlife includes a series of inventory cards that can guide your exploration of the grounds. Think seasonally, multi-sensory, and across the curriculum.

For a list of recommended tools to include in an outdoor classroom kit, contact Marilyn Wyzga, Project HOME coordinator, at marilyn.c.wyzga@wildlife.nh.gov or (603) 271-3211.

Resources for Schoolyard Field Trips:

- Homes for Wildlife, by Marilyn Wyzga; N.H. Fish and Game Department, Concord, N.H.; 1998.
Get Kids Outside with Let’s Go Fishing!

By Karina Jolles, Let’s Go Fishing Program Coordinator

The Let’s Go Fishing Program, part of N.H. Fish and Game’s Aquatic Resources Education, is a great resource to help teachers get students outdoors. The program promotes the wise use of New Hampshire’s aquatic resources and encourages the public to participate in fishing...a healthy outdoor activity for all ages. Both ice fishing and basic fishing are popular in New Hampshire schools. Successful programs revolve around teacher, school and parent involvement.

Anne Kenney, of the Great Brook School in Antrim, has taken her 5th grade students ice fishing with Let’s Go Fishing for several years. She incorporates the program into multiple subject areas. Students not only get fresh air and exercise – they learn about the formation of ice in science and draw pictures of fish in art class.

Merrimack Valley Middle School teacher Debbie Banaian worked in advance with her 7th grade students. Students were studying adaptations, so, when doing fish identification, we talked about fish body shape and coloring. The students were eager to participate in ice fishing because they could apply things they had already learned.

Donna Ciocca, a 7th grade teacher at Rundlett Middle School in Concord, demonstrates that when a teacher gets excited and can share personal experiences, the students can’t help but get excited, too. Donna involved all the teachers on her team on the field trip.

Let’s Go Fishing promotes fishing as a family activity, and parent participation is key to the program’s success. It is great to see parents and children bonding while setting up their fish gear, catching fish and cooking s’mores.

Through the Let’s Go Fishing program, students apply the skills and knowledge from the classroom to real life experiences. They discover their families don’t need to jump in the car and drive 30 miles to enjoy nature. Best of all, when you use something like fishing to teach students about science and nature, it seems a lot less like “learning” and more like having fun!

Visit www.FishNH.com or email karina.r.jolles@wildlife.nh.gov.

RESOURCES

Here are a few of our favorite books on children and the outdoors:

• Last Child in the Woods: Saving our Children from Nature-Deficit Disorder, Richard Louv
• Father Nature: Fathers as Guides to the Natural World ed. Paul S. Piper and Stan Tag
• A Sense of Wonder, Rachel Carson
• Children’s Special Places, David Sobel

ON THE WEB:

• The Children and Nature Network: www.cnaturenet.org
• Explore Wild New England: www.wildnewengland.org

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www.nhplt.org

Get Kids Outside with Let’s Go Fishing!