

## **Back To Nature**

For years, Service employees have been connecting children with the land and with the agency's conservation mission. Today those efforts may be more important than ever.

*By David Eisenhauer*

At four feet six inches, 9-year-old Lexi Monroe isn't much taller than the clump of native bunchgrass she is trying to plant. Her knees are sinking in mud and her shovel is losing its battle with the hard-packed soil, but the freckled fourth grader is steadfastly determined to get her plant in the ground.

Monroe and 36 of her classmates at Rockledge Elementary in Bowie, Maryland, are spending the warm spring morning installing vegetation in the school's backyard "wetland" under the guidance of Fish and Wildlife Service biologist Carolyn Kolstad. The knee-high trench behind the school serves as a living laboratory where the youngsters learn how to build habitat for local wildlife and receive a first-hand lesson in environmental conservation.

As director of the Chesapeake Bay Field Office Schoolyard Habitat program, Kolstad provides a combination of biological expertise, onsite technical and design assistance and hands-on training for teachers and students—all the necessary components for implementing a successful student-led restoration project on school grounds. The students are involved every step of the way, from planning and design through grant writing, planting and community outreach.

To date, the Service has assisted approximately 150 Maryland schools in completing wetland, meadow, and forest projects involving more than 30,000 students. An additional 50,000 to 60,000 students have used the restored habitat sites as part of an integrated curriculum approach. Annually, the program provides training for hundreds of teachers and involves thousands of students in projects on school grounds that create habitat for wildlife, help to improve water quality and provide outdoor classrooms where students can interact with and observe natural resources daily.

The Schoolyard Habitat program not only teaches children about natural systems, Kolstad says, but it also sows seeds of conservation in their budding young minds.

"This may be the first time some of these students have ever planted a plant," she says. "The experience can forge a life-long connection to the natural world."

These kinds of lessons are taking place at refuges, hatcheries, and Service field stations across the country—from the "Kids in the Creek" program, where high schoolers in Chelan County, Washington, assess stream health by identifying aquatic insects to the Prairie Wetlands Learning Center in Fergus Falls, Minnesota, where students spend a semester studying traditional subjects in an outdoor learning environment.

For years, Service employees have taught children about nature and respect for natural resources while accomplishing important wildlife habitat goals. But today those efforts may be more important than ever.

Mounting evidence shows an increasing number of children are becoming disconnected from nature, preferring to spend time indoors immersed in a virtual reality of television, video games, and I-pods rather than explore the natural reality outside their front doors. Author Richard Louv, whose book *Last Child in the Woods: Saving Our Children from Nature Deficit Disorder* chronicles this trend, argues that increased urbanization, parental anxiety, residential development restrictions and structured play have kept children on a tight leash. This separation from the natural world can result in a host of physical and mental ailments, Louv warns—from childhood obesity to Attention Deficit Hyperactivity Disorder—and erode future support for conservation.

“If this gap between children and nature continues to widen,” he asks, “where will future conservationists come from?”

### **Sparking a conservation ethic**

As the nation’s primary conservation agency, the Service has a significant stake in answering that question. Alarmed by Louv’s conclusions and steady declines in hunting and fishing license sales, the Service, The Conservation Fund and Louv organized a national dialogue on children and nature at the National Conservation Training Center (NCTC) in September 2006 to discuss the how to reconnect a generation of youth with the natural world—and secure the mental and physical health benefits that go with it.

About 350 educators, health professionals and conservationists participated in the meeting, including Secretary of the Interior Dirk Kempthorne, Service Director H. Dale Hall, The Conservation Fund’s President Larry Selzer, Executive Director of the North American Montessori Teachers’ Association David Kahn and Yale University’s Stephen Kellert.

“Fishing and just playing around in the woods was an important part of my childhood,” Hall says. “Our kids need to have a chance to tromp through a woodlot or muck around in a creek. That’s the foundation of a healthy relationship with the outdoors and a way to spark a conservation ethic.”

In January 2007, the Service Directorate listed connecting people with nature as one of the agency’s six top conservation priorities and created a national Children and Nature Working Group of field and regional office representatives from each program to map a course of action for the future. This week, the Working Group is holding a national workshop at NCTC that will give Service employees new skills and training to help children and families develop strong life-long connections with the natural world.

NCTC Director Rick Lemon, who leads the Service’s Children and Nature Executive Team, says the agency—with its extensive land base and passionate and knowledgeable

employees—is well positioned to help children reconnect with nature. But while the Service already provides public use opportunities—ranging from hunting, fishing, observing and photographing wildlife, or simply exploring and discovering connections to nature on refuges—Lemon says an “even greater and more focused effort is needed.”

“With big issues like climate change impacting our conservation mission, we will need every American to become part of the solution. Engaging children in our conservation and restoration efforts—from planting a tree to banding a duck—gives them a sense of connection to the natural world and personal empowerment that they can make a difference,” Lemon said. “Whether they grow to be a biologist, a banker or a mechanic, we will need them to be aware and care about the natural world. That starts with connecting them with nature when they are young. When you see the light in a child’s eyes when they come in contact with a wild animal, you know that you have kindled a flame in their soul.”

### **Making the connections**

The Service hasn’t been sitting on the sidelines when it comes to connecting children with nature. Dozens of hands-on conservation projects help restore habitat and wildlife species and teach children outdoor and scientific skills. Service employees also regularly give presentations at schools, provide expertise on field trips, conduct training for teachers, participate in summer camps, and help develop curricula and lesson plans that deal with natural resource issues.

The Refuge System’s nearly 100 million acres provide plentiful opportunities to reconnect children and family with the outdoors through the System’s “Big Six” recreational uses— hunting, fishing, wildlife observation, nature photography, environmental education and interpretation. More than 35 million visitors enjoy refuges each year, and more than 300 refuges annually offer environmental education programs for some 700,000 students and teachers. Likewise, many hatcheries also provide excellent recreational and educational opportunities for schools and communities and regularly host events to share the Service’s conservation message.

Most programs and initiatives are done in collaboration with a variety of partners, including watershed groups, scouting groups, refuge and hatchery friends groups, volunteers and junior naturalist programs. The Service also regularly teams up with national conservation organizations such as Audubon, the Recreational Boating and Fishing Foundation, the National Wildlife Federation and the National Fish and Wildlife Foundation.

Lemon says he is encouraged by the wide range of Service programs that connect children with nature, but suggests the agency needs to integrate existing and new programs with its five other top conservation priorities (National Wildlife Refuge System, endangered and threatened species, landscape conservation, aquatic species, and migratory birds) seek nontraditional partners, incorporate new technologies to reach kids and speak with one voice. The Service’s children and nature initiative includes:

- Developing a consistent message and materials to raise awareness within the Service and externally about the importance of connecting children to nature.
- Identifying opportunities within each region to connect children with nature. These will be either new efforts or a refocusing of existing efforts that better target children.
- Reaching out to urban environments and/or with traditionally underserved audiences.
- Identifying national campaigns or develop one Service-wide campaign to connect children to nature.
- Developing a Web site to provide a one-stop source of readily accessible information, outreach materials, curricula and lesson plans and a community of practice where practitioners can interact in posting best practices, success stories, questions and issues.
- Analyzing existing training courses and making adjustments and/or create new courses to build competency in Service employees to connect children with nature.
- Working with traditional and nontraditional partners such as the healthcare community, educators, technology and medical companies to link efforts to get children outside into nature.

“The core mission of the Service has not changed,” Lemon says. “However, stressing the wellness benefits from connecting with nature in our outreach message is a paradigm shift for the Service; one that will surely reap rewards in terms of increased advocacy and conservation.”

### **Discovering the passion**

For Service staff like Carolyn Kolstad, connecting children with the outdoors is second nature.

She sits on the ground behind Rockledge Elementary, encircled by a gaggle of young onlookers as she explains the intricacies of wetland plant plugs. Kolstad describes the different plant characteristics—roots, leaves, and in some cases, flowers—and explains that wetland plants have a unique ability to live under water.

Her words are sinking in.

“The Chesapeake Bay is a really good resource,” says student Lisa Chen, 8, as she carefully pats the soil around tiny vegetation that will soon be submerged. “The Bay gives you food and powers the city.”

"Nitrogen and phosphorus makes the fish die in the Chesapeake Bay," pipes in 10-year-old Taylor Peterson. “A wetland is a natural filter. It gets out all the chemicals.”

Kolstad's duties as a teacher extend to her role as a member of the Service's Children and Nature Working Group and her life as a working mother. She says she spends most of her "free time" with her 2-year-old son playing outside and exploring the universe of living things in her own backyard. For her, connecting children with nature isn't a job; it's a labor of love.

"The Service's children and nature initiative is important to me because I can see the connection kids are making with the outdoors," Kolstad says. "I see it in the eyes of children I've been fortunate to meet in my experience at work, and I see it in my own child's eyes. It's gratifying to know the passion I have for the outdoors is being passed to the next generation—not because I tell them they should have this passion, but because they have been given the opportunity to discover it on their own."

For more information about the Service's children and nature initiative, visit [www.fws.gov/children/](http://www.fws.gov/children/) or e-mail Janet Ady, Chief, Division of Education Outreach at the National Conservation Training Center, at [janet\\_ady@fws.gov](mailto:janet_ady@fws.gov)

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