

natural



connections



St. Olaf student environmentalists introduce Northfield youngsters to the wonders of the natural world.

BY JODI OHLSEN READ

PHOTOGRAPHS BY DIANE ANGELL AND GENE BAKKO



ESPIE AN AUTUMN COLD SNAP that called for warm jackets and mittens, nearly 30 Greenvale Park Elementary School second graders watched their teacher, Mary Beth Youngblut, step into a pond in the St. Olaf wetlands on the north side of campus. Wearing waist-high waders, Youngblut gamely scooped up handfuls of algae, mud and water, pouring it into a plastic tub on shore. The youngsters, under the tutelage of 20 St. Olaf biology and environmental studies students, gathered around the tub of pond muck where they were encouraged to take turns lifting out nearly invisible “critters” with tweezers.

One looked like a tiny spider, but it wasn't. “It's a water mite,” explained Willie Richards '07, an environmental studies major who, along with Amber Collett '07, is a student naturalist. “And this one is a scud.”

The outdoor classroom is part of the college's new Natural Lands Learning and Sharing educational program led by Richards and Collett — who created the program with Assistant Professor of Biology Diane Angell — and volunteers from the St. Olaf Environmental Coalition, a student-run environmental advocacy group. The fall session focused on wetlands and water life; subsequent sessions this spring are continuing the examination of wetlands as well as prairies and woodlands.

Throughout the week last fall, Angell met Greenvale second graders and their teachers, Youngblut and Nicole Papke, at the edge of the St. Olaf natural lands. She led them along well-trodden paths into the wetlands area that for the past 25 years has been carefully restored by the college, with help from the U.S. Fish and Wildlife Service and generous donations from alumni. For many of the 7- and 8-year-old students, familiar with squirrels and rabbits and deer, it was the first time they recognized that Minnesota wildlife includes these microscopic critters, too.

Youngblut and Papke prepared their students ahead of time with classroom lessons on the science of wetlands. St. Olaf students reinforced those lessons with hands-on experience. Dividing the children into six teams with names like “mink” and “goose,” the biology and environmental studies majors sat with the eager, attentive second graders among the trees and

long grasses, practicing “sound mapping” and talking about the connections among water, plants and animals.

“Spending time outside shapes the way children view their larger world and how they approach problem solving,” says Angell, a proponent of experiential learning. “Children look at words on a page and pick out the details, or look at a math problem and pick out details, but when they go outdoors they can't process the real world.”

Armed with a better understanding of each living thing's place in nature, the second graders called out answers to an informal wetlands review by their St. Olaf instructors: “A wetland is a sponge!” “Wetlands help keep our water clean!”

“Environmental education is so important because it connects students to their natural surroundings, to their homes and communities, and it shows them that these are cool places that need



Greenvale Park Elementary second graders get a hands-on experience with nature at St. Olaf.



to be protected,” says Collett, who is pursuing a double major in environmental studies and in Russian and Central European studies. “Going outside and participating in an activity is another way to experience learning. It's important because if kids don't have those positive exchanges in nature, they are not going to feel a need to protect it later.”

LEARNING TO LOVE NATURE

IN YEARS PAST, St. Olaf students have brought bits of nature to Northfield elementary schools, sharing their knowledge and enthusiasm about water cycles, birds, mammals, insects, trees and plants. In the past five years alone, Angell has taken more than 80 biology and environmental studies majors to Greenvale Park Elementary, within walking distance of campus, to talk about nature.

“I ask the teachers what they want. We’ve covered skeletons, prairies, life cycles, insects, biomes, the combination of water, microbes and septic systems,” says Angell. “We also consider some of the new science requirements for the state of Minnesota, and we always bring stuff from our biology closets.”

That “stuff” has included mounted wildlife specimens, skeletons, shells, giant cockroaches, live salamanders and even buckets of macroinvertebrates from the ponds. “Students take small groups and then the kids rotate from station to station,” she explains. “Our students love it, and what a change of pace.”

Annual field trips to River Bend Nature Center in nearby Faribault, run by Executive Director Nalani McCutcheon ’88, a St. Olaf biology major, once allowed Northfield schoolchildren an outdoor classroom experience. But when budget cuts eliminated transportation funding for field trips to River Bend, St. Olaf was a natural alternative. St. Olaf students had made lasting impression on Youngblut during their classroom visits. She asked Angell if her second graders could come to St. Olaf for a hands-on nature experience.

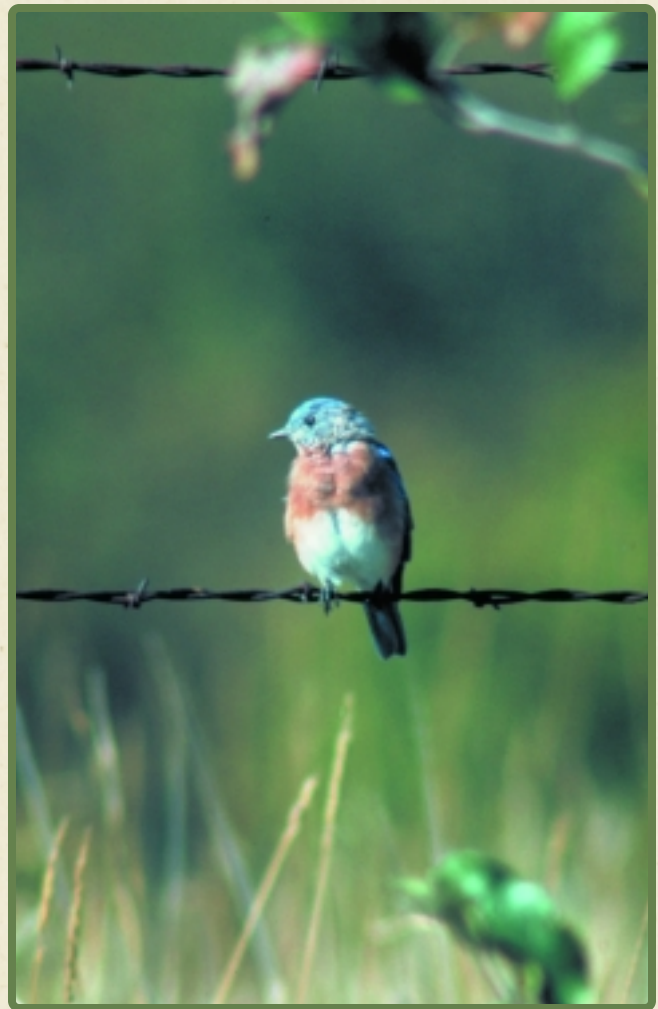
“It’s difficult for a schoolyard to provide the type of natural science learning and perspective on biotic communities that a nature center can provide,” says McCutcheon. “Just as students need a variety of experiences in culture, history and the arts, so, too, they need a variety of experiences with the natural world.”

McCutcheon believes that young people are increasingly losing their connection with the natural world because of safety concerns, competition from computer and video games, and a focus on standardized testing. “My concern is that this loss of time spent outside leads to students who experience more stress, get less exercise and in general have little understanding of how the natural world works. These students will be ill-prepared for adulthood where pressures are greater and lifestyle decisions have long-lasting impacts on themselves and the planet.”

Although some Greenvale schoolchildren shared stories about time spent fishing or at the family cabin, others had never been anywhere like the St. Olaf natural lands. Collett, a co-leader of the Environmental Coalition, was especially delighted that those children who hadn’t seen frogs or ducks in their natural habitat were enjoying themselves. “Hopefully this will stay with them for the rest of their lives,” she says.

LEAVE NO CHILD INSIDE

WILLIE RICHARDS ’07 REMEMBERS having an interest in birds when he was 5 years old, but because he grew up in Minneapolis, the wilderness always seemed to be “something separate,” he says. “Now I know that nature is all around us, wherever we are. I believe



“Children who can memorize entire songs from their iPods can learn the songs of the birds in their neighborhood.”

STUDENT NATURALIST WILLIE RICHARDS ’07

it’s important to provide opportunities for young children to engage sensually and critically with their natural environment. Children who can memorize entire songs from their iPods can learn the songs of the birds in their neighborhood. So I encourage parents to spend time outdoors with their children and to re-learn along with them the wonders of the earth.”

Only 6 percent of children between the ages of 9 and 13 take the initiative to play outside, simply exploring or having fun, according to recent studies. Richard Louv, a columnist with the *San Diego Union-Tribune* and author of *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder*, has helped launch a national movement — one that crosses social, political and economic lines — to reconnect children with the natural world. Its name: Leave No Child Inside.

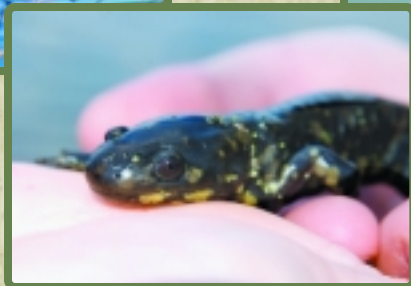
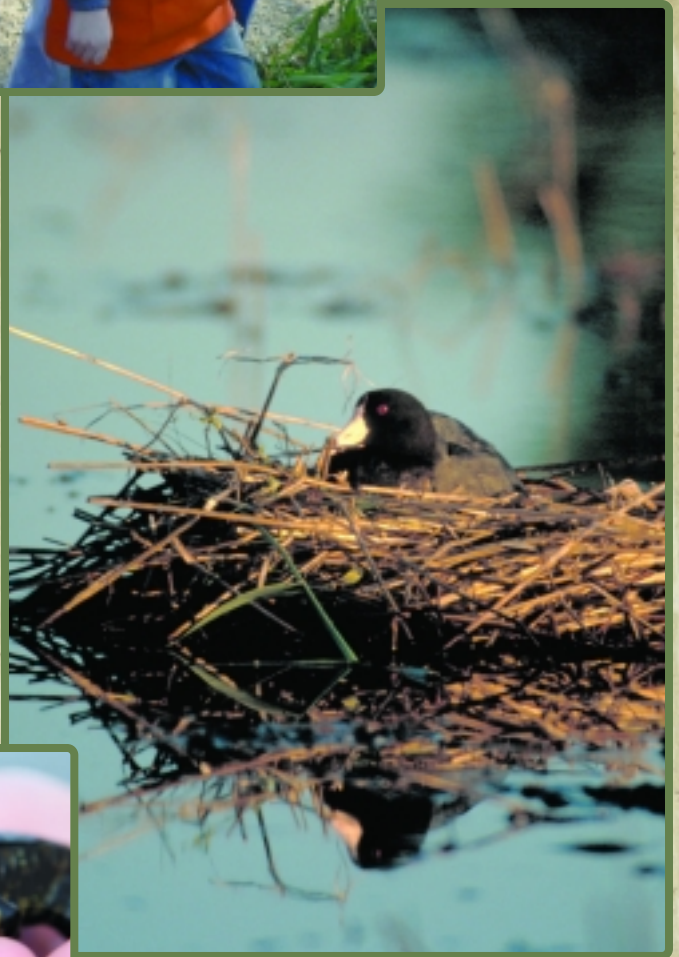
There are risks in raising children “under virtual house arrest,” Louv says, “threats to their independent judgment and value of place, to their ability to feel awe and wonder, to their



Environmental education is a way to teach children to see, listen, hear and smell the the world around them.

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NALANI McCUTCHEON '88



sense of stewardship of the earth and, most immediately, threats to their psychological and physical health.”

Professor of Biology Gene Bakko shares those concerns. “The direct and physical contact with nature, for children, is critical. More studies are showing that many of the societal problems experienced by our youth stem from that separation from nature at a very young age,” he says.

Since 1992, Bakko — who also is curator of the St. Olaf natural lands — has overseen the restoration of some of the college’s farmland to native prairie, hardwood forest and wetlands ranging in size from small, ephemeral ponds up to ones that cover nine acres of surface water. The restored lands all offer habitats to a variety of nesting birds and waterfowl as well as chorusing populations of amphibians.

The college’s natural lands lie in the deciduous forest biome, on what was once Big Woods habitat, much of it cleared for agriculture since European settlement in the early 1800s. In order to restore a portion of the Big Woods, Bakko and his students have planted more than 40,000 tree seedlings and nursery stock. All of this is available to area schoolchildren for exploration and discovery.

With the college’s new wind turbine spinning on the west side of campus, a food composter on the north side and a sustainable Science Complex, which will house the environmental studies and biology programs, rising on the south side of campus — bordered by acres of woodlands, prairies and wetlands — St. Olaf is fertile ground for teaching environmental stewardship to students of all ages.

“Everyone at St. Olaf — administrators, faculty, staff and students — is acutely aware of sustainability,” says Bakko, “and each year approximately 600 graduates move out into the world, spreading this awareness.”

EDUCATION IN ACTION

RICHARDS AND COLLETT, along with many of their peers, are committed to raising environmental awareness both on and off campus. Last fall, Collett was selected by the North American Association for Environmental Education to receive an academic scholarship in recognition of her superior accomplishments in environmental education.

“My work as an intern for the nonprofit Alaska Coalition, my involvement in St. Olaf’s Environmental Coalition and my position as a student naturalist all contribute to my interest in environmental education,” she says. “But it really started when I was a child and would go for walks with my father, who is an environmental educator. He taught me a new way to interpret the world around me, which I was then able to take to the next step at St. Olaf. My experiences only confirmed my belief that children need to be able to explore the world around them.”

Collett — who strives to “live deliberately” — will spend time after graduation this spring working with Green Corps, a



St. Olaf environmental studies students have been sharing the wonders of nature with Greenvale students for more than five years.

nonprofit organization that trains new college graduates for careers in environmental leadership and advocacy. Richards, who is applying to the Environmental Education Certificate Program at Wolf Ridge Environmental Learning Center in Finland, Minnesota, near Lake Superior, intends to pursue work as a naturalist and environmental educator at a nature center, or at a state or national park.

A love for nature ripples outward. Each connection, from professors to college students to schoolchildren, awakens a new interest and understanding of the world.

“One can endlessly debate budget cuts and the effects of eliminated school programs,” says McCutcheon. “However, one thing we know is that time spent outside is restorative to the soul. There’s a connection that our minds and spirits have with the natural world that calms and reassures us. It centers us.” 🦊

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