# Introduction

All across the country, from city classrooms to one-room school houses, children are learning about nature through stories and activities, using computers and crayons to gain an understanding of global warming, resource conservation, and of how weather is made. Indeed, the importance of transferring environmental values to the next generation is being recognized by preservationists and land-use planners alike. But with this increased appetite for nature education, teachers have been enthusiastically annexing all sorts of materials and lessons, without thinking specifically about what's appropriate for children of different ages. Now that there seems to be agreement that environmental eduation is necessary, it might behoove us to take a step back and consider the methods and messages of our teaching.

As adults we know the value of facts and figures, so we wish for children to know details about nature: names of trees and birds and geologic formations. Yet the names won't stick unless there's a bedding of empathy where that knowledge can take root. And in our desire to prepare the next generation of adults to deal with the legacy of our ecological assaults, there is a tendency to inform children of the problems concerning the human-nature relationship while failing to share with them its beautiful possibilities. In rushing to teach them about global issues and responsible activism, we neglect the fact that young children have a fascination with the immediate, and an undying curiosity that requires direct sensory experience rather than conceptual generalization.

David Sobel's essay *Beyond Ecophobia: Reclaiming the Heart in Nature Education* presents environmental education strategies for teachers and parents of young people that cater to a child's natural affinities. When we consider the developmental stages of childhood, as *Beyond Ecophobia* does quite lucidly, we find that there are appropriate environmental activities and accessible ecological concepts for children at different age levels that take into account their cognitive capabilities and psychological needs. The key is in allowing for a close relationship to develop between children and the nature near home before laying the weight of the world's plight on their shoulders. Once children feel connected to nature and "the environment," physically and emotionally, they'll be compelled to seek the hard facts, and they'll take vested interest in healing the wounds of past generations while devising feasible, sustainable practices and policies for the future.

As parents, teachers, and members of our communities, we each can learn something from the observations in this essay. We not only find models for organic teaching and parenting here, but windows into our own childhood experiences, as well as our experiences with young people today. *Beyond Ecophobia* makes it clear that the best teaching occurs when the emphasis is less on imparting knowledge and more on joining the child on a journey of discovery. If we can reimagine the world as a child sees it, while continuing to model attitudes of concern and respect for nature, our young companions will come to see the connections between loving the earth and caring for its well-being. En route, we might just learn something long forgotten since our own age of innocence.

A few years back an Orion Society teaching fellow was conducting an erosion experiment with her second-grade class that required the excavation of dirt from the school yard. One little girl halted at the edge of the blacktop, proclaiming that she just didn't like dirt. Kneeling down before her, a teaching assistant scraped up a small handful of dirt and extended cupped hands toward the child. Sifting through the decayed leaves and other detritus with her thumb, she explained to the child that dirt is really just nature's way of recycling living things, that when things die they turn into dirt, making nutrients that feed plants, which then feed animals and on and on. The little girl slowly extended her upturned palms, reaching out for the deep brown earth. After timidly poking at it, then more aggressively kneading the dirt, she raised her head and

said "You know what else? My dog eats pine needles."

Here was a connection, a heart-felt, synapse-to-synapse instance of real knowledge. Immersed in sensations of the textures and smells of the dank earth, the little girl unsheathed the first layer of a gestating understanding of the food chain. If the child learned anything from the erosion activities when she rejoined the group across the school yard, all the better. One never knows where the educational path with heart will lead. But there is hope that by taking the time to follow it, and not exposing children to the dark and dense facets of environmentalism too soon, we will arrive at a place where children see nature as their home and are inclined, therefore, to care deeply for the places they inhabit.

Jennifer Sahn, Editor

# BEYOND ECOPHOBIA

## Reclaiming the Heart in Nature Education

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**BY DAVID SOBEL**

named that activity "Cleaning up Mother Earth." It was a short walk. We probably only did five minutes of picking up, but week to week, it was easy to see the progress we were making. This kind of social action seems suitable and fitting for children of this age, especially when part of an engaging kinesthetic adventure. But the big challenge is to watch out for the downward creep of our activist inclinations, allowing children the un-adult-erated communion with nature that provides "intimations of immortality."

## Taking Time: Allowing Communion with Nature

I went canoeing with my six-year-old son Eli and his friend Julian this past April. The plan was to canoe a two-mile stretch of the Ashuelot River, an hour's paddle in adult time. Instead, we dawdled along for four or five hours. We netted golf balls off the bottom of the river that had been swept down from the upstream golf course. The boys were thrilled by this unplanned activity. We spent a lot of time looking down into the shallows and depths of the river with a purpose, and we wound up doing a lot of fish and bug watching too. We stopped at the mouth of a tributary stream for a picnic and went for a long adventure through a maze of marshy streams and abandoned floodplain oxbows. Following beaver trails led to "doing bridges"—balance-walking on fallen trees to get across marshy spots without getting our feet wet. We tiptoed across the tops of beaver dams, hopped hummocks, went wading (Eli called it "shallowing"), looked at spring flowers, tried to catch a snake, got lost and found. How fine it was to move at a meandery, child's pace.

The temptation to rush down the river is a trap waiting to catch parents and educators. Suffering from the timesickness of trying to do too much too quickly, we infect our children with our impatience. Most nature study or environmental education in American elementary schools lasts a matter of weeks, maybe a month. As a result, depth is sacrificed for breadth, and there's little opportunity for immersion in the landscape. Instead, we make children do workbooks in kindergarten, we let seven year olds watch Jurassic Park, and we bombard them with tragic anxiety. After the Oklahoma City bombing in 1995, a sixth-grade teacher asked his students what they thought of the TV coverage and one

student spoke for many of them when she said, "It's not good to show so much on TV because kids see children all bloody and dead and it makes us scared about growing up in the world."

Some teachers are putting on the brakes. JoAnne Kruzshak, a first- and second-grade teacher in Thetford, Vermont, spent all of last year doing a project on a local beaver pond and marsh. These first and second graders visited the pond, about a quarter mile from the school, once a week through all kinds of weather. "In the beginning," Kruzshak recalls, "I thought we'd run out of things to do and study by Thanksgiving. By March I realized that there was no way we could follow up on all the neat opportunities by the end of the year."

The Harris Center for Conservation Education, located in the Monadnock highlands of southwestern New Hampshire, is one of the environmental education centers also taking the long view in designing its programs. Harris Center educators take a multifaceted developmental approach with teachers and students in their local public schools. From grades two through five, environmental educators lead classroom activities and nearby field trips six to eight times a month. Students also visit the Harris Center for nighttime owl walks, fort building, map and compass treasure hunts, wild animal programs, and for an adventure-oriented summer camp. In the middle-school grades, children survey vernal pools, design and maintain trails, and participate in simulated planning sessions about moose hunting and other local issues. In high school, students participate in an internationally acclaimed air-monitoring program and study other regional and nationally oriented topics. Because there's a clearly designed developmental strategy over the whole twelve years of schooling, environmental educators and school staff have time to let children bond with the natural world



during the elementary years. The Harris Center's school program brochure entitled "Turning Science Inside Out" says:

> *By the end of their journey with the Harris Center, students will have watched birds, searched for amphibians and insects, studied animal tracks, mushrooms and wild foods, surveyed wetlands, mapped local watersheds, learned the geological history of mountains in their area and tested the air and river quality. With one foot in snowshoe and the other in muck, we trek together learning the sweetness that comes with knowing the terrain.*

If we want children to flourish, to become truly empowered, then let us allow them to love the earth before we ask them to save it. Perhaps this is what Thoreau had in mind when he said, "the more slowly trees grow at first, the sounder they are at the core, and I think the same is true of human beings."

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THE ORION SOCIETY'S NATURE LITERACY SERIES offers fresh educational ideas and strategies for cultivating "nature literacy" —the ability to learn from and respond to direct experience of nature. Nature literacy is not information gathered from a series of isolated, external "facts," but a deep understanding of natural and human communities. As such, it demands a far more integrated and intimate educational approach. Nature literacy means seeing nature as a connected, inclusive whole. Furthermore, it means redefining community as an interwoven web of nature and culture, a relationship marked by mutual dependence and one enriched and sustained by love. The materials presented in this series are directed to teachers, parents, and others concerned with creating an education that nurtures informed and active stewards of the natural world.

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