

**2009 Paul F-Brandwein Lecture**  
March 21, 2009  
National Science Teachers Association  
New Orleans, Louisiana

The Ecology of Hope:  
Natural Guides to Building a Children and Nature Movement

By Cheryl Charles, Ph.D.

It is my pleasure and my honor to be giving the 2009 Paul F-Brandwein Lecture. I had the good fortune to meet Paul Brandwein and his wife Mary Brandwein on a variety of occasions. I was honored to give the Brandwein Lecture in 1998, and now I am very pleased to help perpetuate the mission and legacy of the Brandweins as a member of the Brandwein Institute Board of Directors.

I am going to talk about what I call “The Ecology of Hope: Natural Guides to Building a Children and Nature Movement.” I will put this emerging movement in some recent historical perspective—and, along the way, will offer examples of why and how this movement is building with such vibrancy and hope.

### **Why Care: A Brief Summary**

Let’s start with the current baseline. Most children and youth today have limited direct experience with the outdoors and are disconnected from nature in their everyday lives—including in most schools, most of the time. If they are outdoors, the experience is more likely to be in organized sports and on playground equipment, often on asphalt play grounds. There are always exceptions, but, on the whole, the defining experience of today’s youth and children is indoors, at home or in school, or in a car. Shuttled from school to church to soccer to dance class to day camp, most of our children are—with all good intentions on the part of parents, teachers and caregivers—being given a virtual, vicarious, electronic, passive and cocooned experience of childhood. Or, they are left alone, on their own for hours and hours at a time, hooked in to what I call the electronic umbilica of today’s contemporary lifestyles. I am not at all anti-technology. However, the current lifestyles and learning environments for most children and youth today are out of balance—with a disproportionate amount of time spent out of sunlight and facing electronic screenlights from computers to televisions to cell phones and more.

There is evidence to suggest that outcomes associated with children’s disconnect from nature include diminished health; obesity; reduced cognitive,

creative and problem-solving capacities; lower school achievement; lower self esteem; less self discipline; and, attention deficit hyperactivity disorder (ADHD). Many children and youth today are stressed and suffering from depression. This is said to be the most medicated generation in human history, and the first generation projected to have a shorter life expectancy than their parents.

The evidence indicates that one of the best antidotes to stressful lifestyles is spending time in natural settings in the outdoors. To summarize the body of research, children are happier, healthier, smarter, less stressed, more cooperative, more self-disciplined, better problem solvers and more creative if they have frequent opportunities for learning in nature-based settings in the outdoors as an integral part of their everyday lives.

Children's cognitive flexibility and creativity are enhanced if they have the experience in childhood of problem-solving in natural settings versus highly controlled, human-dominated, managed settings like concrete playgrounds and manicured playing fields with little ecological diversity. Beyond cognition, there are mental health benefits. There is now a substantial body of work that indicates the simple act of going outdoors reduces people's stress, anxiety, depression, and attention-deficit disorders. With people of all ages, the results are dramatic. People's overall health, peacefulness and general well-being are enhanced to the degree that we spend some time on a regular basis in outdoor settings, and especially those with varied vegetation, including natural habitats and gardens.

I like standing on the evidence, as well as common sense, and think it is helpful to any of us who are working to build awareness of these issues to have some significant familiarity with the research foundations to indicate both the indicators of the deficit, and, on the positive side, the benefits to children and others from a direct connection with nature in our daily lives. This has clearly been a brief and high-level summary of some of the data. For more detail, I refer you to other of my talks and writings, and specifically to the Children & Nature Network Volumes 1 through 3 of Annotated Bibliographies of research. We have summarized more than 80 premier studies, and provide direct links or PDFs of the studies so you can read them for yourself.

Schools today are often of little help, despite those of you here who have been and are leaders who recognize the importance of hands-on learning, including nature-based learning, as a healthy foundation not only for scientific inquiry but for children's healthy development. Particularly in the last decade, with the narrow emphasis on testing, we've lost some ground. While there have been laudable accomplishments in place-based education and similar common-sense initiatives, where turning the schools and their grounds into learning communities with school gardens, wildlife habitats, and outdoor classrooms are underway, it has been decades and those initiatives are still not the norm—although beginning perceptibly to increase, particularly in urban environments.

It is time for schools—their communities, school boards, parents, administrators, and teachers—to truly open the windows and doors to get children and youth outside for many breaths of fresh air. The evidence indicates that students do better on a range of standardized tests in all major subject and skill areas when direct access to natural outdoor areas is a part of school. One study showed a 27% increase in science scores, and other studies show across the board gains in math, language arts and social studies. Combining naturalized school grounds and play areas with a nature-based curriculum, the benefits are likely to grow even more significantly—and, it would seem highly probable, would make a major contribution to helping to reduce and turn-around the trend toward nature-deficit disorder in today’s children and youth.

Children’s disconnect from nature in their everyday lives has occurred principally in the past two to three decades, with an escalation in the past ten years. This is a worldwide phenomenon, from Ireland to India, from British Columbia to Brazil. It is occurring in industrialized nations in every setting—from urban to suburban to rural—and in all urban environments throughout the world. And it is affecting every income level and ethnic group.

### **Recent History of the Growing Children and Nature Movement**

People throughout the world are hearing this message, it is touching their hearts, and they are taking action. The movement to reconnect children and nature is burgeoning worldwide. It is largely self-organizing and spontaneously generating. It is a manifestation of a sweeping and compelling perceived need for systemic social change—where people everywhere are resonating with the importance of re-righting the balance between children and nature in their daily lives, to, in the words of Richard Louv, “heal the broken bond between children and nature.”

Healing this bond will give children the opportunity to develop wonder and a sense of place, the foundation for a healthy life and one based on an intimate understanding of the world that supports us all. This is one of the goals of all of you who have committed so much time and talent, heart and intellect, to bringing science to life for young people. Paul and Mary Brandwein would be ardently and passionately supportive of this movement to reconnect children and nature, were they alive today. The children and nature movement is consistent with their sensibilities, vision, and life’s work and so, again, I am honored to give this talk in their memory.

Richard Louv gave the Brandwein Lecture two years ago. As most of you may know, Richard coined the term “nature-deficit disorder” in his seminal book, *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder*. Rich is

quick to say that “nature-deficit disorder is not a medical diagnosis, but a description of the human costs of alienation from nature.”

I read *Last Child in the Woods* when it first came out in 2005. I reached out to Rich, not knowing him, to ask him to participate in a National Conservation Learning Summit I was helping to convene and which was held in November of 2005 at the National Conservation Training Center (NCTC) in Shepherdstown, West Virginia. The 2005 National Conservation Learning Summit was the idea of, and sponsored by, the Paul F-Brandwein Institute along with a host of federal and non-profit organizations. This Summit was the original vision of Brandwein Institute President, Keith Wheeler, and President Emeritus, Jack Padalino, supported heartily by the rest of the Brandwein Board, including Marily Dewall and Mary Brandwein, who was still alive at that time at 94 years young. The proceedings from that Summit are available, including for download at [www.brandwein.org](http://www.brandwein.org). The Brandwein report, published in 2006, is titled *Conservation Learning Summit: A Re-Commitment to the Future*. In addition, a film was produced, also still available, which features all of the speakers and reflects the spirit of that seminal event.

We convened the National Conservation Learning Summit in November of 2005 to address many of the issues I am raising with you. Richard Louv and I had a conversation at the Summit which led us—along with others—to co-found the Children & Nature Network, a non-profit organization dedicated to building the international movement to reconnect children and nature. As a side note, among those people that Rich had been working with to create such an organization was the former head of the Federal Trade Commission, Mike Pertschuk, who was instrumental in this nation’s successful anti-tobacco movement. Mike’s daughter, Amy Pertschuk, co-founder of eNature; Martin LeBlanc, National Youth Education Director of the Sierra Club; Martha Farrell Erickson, a pioneering researcher and practitioner related to children, youth and families; and John Parr, a dear friend and former President of the National Civic League also had instrumental roles in the founding of the Children & Nature Network and were later joined by outstanding Board members, Stephen Kellert, Tweedy Ordway Professor of Social Ecology at Yale University, and civic leader, educator and youth advocate, Brother Yusuf Burgess.

This is Rich’s seventh book, and all have been critically acclaimed. However, this one has a life of its own, and its reach is growing. Rich was the 2008 Recipient of the Audubon Medal, *Last Child in the Woods* is on the New York Times Best Seller list, and it has been translated to date in more than 10 languages. This is good news for all of us, beginning with this generation of children. The book has opened door after door, giving voice to the importance of reconnecting children with the natural world. We can all be grateful for its momentum, resonance, and inspiration. The messages in *Last Child in the Woods*—combined with the evidence all around us for children’s “nature-deficit disorder”—are among the

energies fostering, nourishing, compelling and creating this emerging children and nature movement.

I will quickly say, as would Rich, that the message of *Last Child in the Woods* is one that many, many people have worried about and worked to address for decades. Each of you in this room has helped, and continues to help, to heal that broken bond through your dedication to science education. You are among the pioneers and the heroes and heroines. Now, your work is more important than ever—and this movement is helping to create a recognition and appreciation for the value and critical contribution of your work.

One of the goals of the Brandwein Institute, shared and supported by the Children and Nature Network, is to nourish and support the non-partisan, inclusive, pro-active campaign that is emerging within the children and nature movement to Leave No Child Inside—by whatever name it is called. While he had already named it in talks throughout the country, Rich spoke about the campaign in his keynote address at the National Conservation Learning Summit in November of 2005, and then we gave it broader visibility when we announced the campaign on Earth Day, April of 2006 at an event at the National Press Club in Washington DC, convened and hosted by the Paul F-Brandwein Institute. That Press Club event marked the public release of the National Conservation Learning Summit report and recommendations. Keith Wheeler and Jack Padalino set the tone and purpose, and I moderated a panel, including Richard Louv, Stephen Kellert of Yale, Philippe Cousteau and others. It was on that date, April 24, 2006, that we publically, nationally, and visibly announced the formation and launch of this new campaign to “leave no child inside.” In the statement to the press we issued at that time, we said, “A generation that has had little or no personal connection to nature is unlikely to produce passionate stewards of the earth.” Leading representatives of the nation’s largest conservation organizations, senior officials in US federal agencies, deans of colleges and universities, business leaders and government officials embraced the purpose and vision of this new campaign. While Richard Louv had been talking about the idea as a national movement for some time, Connecticut’s Commissioner of Environmental Protection, Gina McCarthy, soon to be in a senior role in the Obama administration’s Environmental Protection Agency, and Connecticut’s Governor Jodi Rell were the first to launch a regional program by that name. Connecticut’s No Child Left Inside program has successfully raised family attendance at Connecticut’s state parks. The inspiring program has since been adapted and replicated by other state park systems.

Other children and nature campaigns and initiatives, with various names and emphases, are being echoed and replicated, endorsed and championed by allies throughout the United States and Canada, and in other parts of the world. There are literally more than 50 community-based, state or provincial children and nature initiatives underway coast to coast in North America, with more blossoming all the time. And the movement is clearly international. As one

example, the importance of reconnecting children and youth with nature, for their health and well-being and the future of the Earth itself, was approved as recently as October of 2008 as part of the mandate of the International Union for the Conservation of Nature and its Commission on Education and Communication through the efforts of Keith Wheeler, Chair of that Commission, myself, and other members of the Commission and the IUCN.

Another outcome of the Brandwein Institute-sponsored National Conservation Learning Summit, and the interest sparked by *Last Child in the Woods*, was the National Dialogue on Children & Nature, co-convened by the Children & Nature Network, with the US Fish and Wildlife Service and the Conservation Fund in September 2006. The Dialogue was also held at the National Conservation Training Center in Shepherdstown, West Virginia, the same location where we held the National Conservation Learning Summit in November of 2005. I hear some people who mark that National Dialogue on Children and Nature as the launch of this children and nature movement—referring to the Shepherdstown conference. There were two Shepherdstown conferences on this subject, and others since then. However, Brandwein’s National Conservation Learning Summit was the first, held in 2005. The National Dialogue on Children and Nature was held in September of 2006. Rick Lemon, founding Director of the NCTC, talked with Rich at the 2005 Conservation Learning Summit, and wanted to build on the energy and compelling power of this issue—something Rick genuinely cares about and has helped to bring attention to throughout his career. In September of 2006, more than 400 people gathered for the National Dialogue on Children and Nature, many of whom were participants in the Brandwein Institute’s Conservation Learning Summit in 2005. Momentum was gaining. At that 2006 National Dialogue, the idea was announced for a National Forum on Children & Nature, for which Richard Louv serves as Honorary Chairman.

While the book, *Last Child in the Woods*, is not the sole cause of the current children and nature movement, it has, in every sense, unleashed a “force of nature.”

### **Natural Guides to Building a Movement to Reconnect Children and Nature**

The title of my 1998 Brandwein Lecture was “Natural Guides to Community Building.” Here is a quote from my talk in 1998:

“Let me start with a worry I have. This is a worry I have had for 25 years—and it is getting more intense, not less. I worry about children, youth, and adults living lives so immersed in technology that we forget to directly experience the living world itself—we forget nature, the first classroom. For the long term, I believe that we have to remember how the living world works from direct experience, from intimacy, from the loving respect and substantive knowledge that cannot be obtained vicariously or virtually.”

In that talk eleven years ago, and subsequently in the most recent of my husband, Bob Samples, and my books—*Coming Home: Community, Creativity and Consciousness*—I describe what Bob and I have learned from observing natural systems and apply those insights to human relationships, from families to schools to businesses to whole communities. Bob has long been a champion of the spirit, and has consistently urged all who would listen to turn to natural systems, to nature, for perspective and inspiration. He says, “We need to reground ourselves in the ways of wild ecologies . . . It is nature that will guide us to the kind of realistic, dynamic equilibrium that we need in order to heal the rifts between culture and nature.” I would add, to heal the rifts between children and nature, between communities and nature, from our homes and neighborhoods to the planet as a whole.

Starting with the Brandwein Institute’s Conservation Learning Summit in 2005, I personally re-committed my energies to focus on reconnecting children and nature. In 2006, when Richard Louv and others of us founded the Children & Nature Network, I made a conscious choice to immerse in helping to build this movement to reconnect children and nature. Recently, I have begun to think specifically about how the natural guides to community building can be applied to building this movement to reconnect children and nature. Eleven years after I gave my first Brandwein Lecture, this is an appropriate time to revisit the natural guides. This is the first time I have developed and described them specifically for their relevance to the issue of reconnecting children and nature.

To state the obvious, nature has been establishing and sustaining successful models of living systems for about 15 billion years. Nature has a track record of success. Principles of contemporary ecological perspectives can help us detect some of the attributes that are central to the health of living systems. We need to draw on nature’s successes and lessons to re-right the balance in children’s daily lives.

In this spirit, here are seven illustrative characteristics of natural systems that translate powerfully into how we are building a movement to reconnect children and nature. These are representative attributes, not a comprehensive list, of the principles we find helpful as we work to build the movement to reconnect children and nature.

These are the attributes:

- Diversity
- Niche
- Cooperation
- Self Regulation
- Optimization
- Connectedness
- Community

### ***Diversity***

Diversity tends to be an indicator of health in ecosystems. Diversity assures resilience. Monocultures, in contrast, are vulnerable. This reminds us to think in terms of the many ways in which people can choose to participate in this movement—in their daily lives, in their priorities, where and how they live, learn, work and play. From individual children and their families to whole communities, this movement to reconnect children and nature will be inherently resilient to the extent that we embrace the many ways in which people can help to heal this broken bond. There is no one right way to reconnect with nature. One size does not fit all.

### ***Niche***

A niche, in the ecological definition of the word, is how an organism makes a living. Every organism has a niche and is therefore inherently important. Used to indicate a role, the word is alive with possibilities—each person can have multiple niches, and various niches over time. A niche requires action. An organism has something to do. Every organism warrants respect.

It is important that we recognize this concept as we build this movement to reconnect children and nature. Everyone has a contribution to make, everyone can help re-right this balance. From the perspective of the C&NN, we think this movement is taking form at every level—in individual children’s choices to play outside and take their friends; in families starting Nature Clubs for Families; among grassroots leaders starting children and nature initiatives in communities throughout the United States, Canada, and other parts of the world; in whole communities, and at state and federal levels. This movement is not just bottom-up nor top down. It is everywhere, and everyone has a niche, a role, a way to make a difference.

### ***Cooperation***

Although competition exists in natural systems, its role has been overemphasized. Cooperation is prevalent and actually more pervasive than the role of competition in the natural world. An effective movement to create social change is epitomized by cooperation. Most of history’s major social movements were characterized by people of all walks of life and all political persuasions coming together with a common purpose. The election of President Obama, and the campaign’s anthem, “Change we can believe in,” was grounded in and driven by an extraordinary coming together—an extraordinary cooperation—among millions and millions of people.

Civic life in the United States, Canada and other parts of the world is being dramatically affected, for the positive, by a trend in the past 20 years to foster collaborative community problem solving. Through the Children & Nature Network, we are consciously fostering and encouraging community-based collaborations to build the children and nature movement. The *C&NN*



*Community Action Guide*, downloadable from our web site, is a tried-and-true guide to implementing social change through respectful cooperative efforts—a process honed for decades by Dr. John Gardner and John Parr and others, and applied, for the first time, to building this movement.

### **Self Regulation**

Self-regulation is one of the most provocative natural guides to building a social movement. Contemporary views of ecology and ecosystems hold that the natural world is a self-regulating system, arguably the most successful management system in the world. It has persisted through immense spans of time and is still here and functioning.

Fundamental to the children nature movement, families and individuals are taking responsibility in their own lives for reconnecting with the natural world. This is a form of self-regulation. We recently published the *C&NN Nature Clubs for Families Tool Kit: Do It Yourself! Do It Now!* The response has already been amazing, and is evidence that the self-organizing, self-regulating dimension of this movement can be nourished and supported. The result is happier, healthier families, beginning with their children, who are learning once again how to go outside, and how to make it a priority to invent, explore, play and learn in the natural world. Another manifestation of this self-regulating influence is our approach to encouraging grassroots efforts to build children and nature initiatives—from neighborhoods to towns and cities to states, provinces and larger regions. We spread the word, provide tools such as the *C&NN Community Action Guide*, offer encouragement, and then get out of the way—believing that a self-regulating approach to building a movement to reconnect children and nature is inherently resilient, adaptive, and more likely to succeed over time than if it were proscribed from and by a top-down model and infrastructure.

### **Optimization**

There is an unfortunate tendency in contemporary Western culture to think that most is best. The popular sayings, “He who dies with the most toys wins,” and “Everything to the max,” reflect this tendency. Perhaps at no time in human history has this attitude of “maximizing everything” created such a tragic consequence, so entirely avoidable, as the recent excess in the human economic system manifested in recession, foreclosures, debt, and economic losses that have children and families on the streets, dreams dashed, and a worldwide economic system in more imbalance than might ever have been imagined.

In contrast with this approach, the resource base for nearly all things in nature is balanced, abundant and even redundant by design. Nature keeps energy and resources in reserve. Rather than maximizing everything, nature tends to optimize its use of resources and to make sure that there is sufficient redundancy to assure continuity. The human idea of “saving for a rainy day,” is a form of keeping energy in reserve. When we pace ourselves and avoid burnout, we are acting optimally. Classic burnout is working to the max. Nature reminds us to be

moderate rather than excessive. This does not mean we don't work hard or that we don't strive for excellence. It does mean that we take care to nourish ourselves and others along the way.

### **Connectedness**

In nature's ecologies, every part is connected to every other. The ripples of any action affect whole living communities, sometimes in ways not seen. Echoing others before him, the naturalist John Muir observed, "One touch of nature makes the whole world kin." When we apply the concept to growing a movement to reconnect children and nature, it helps us to remember to respect all the parts and foster ways in which people of every age are nourished by the refreshing benefits of nature in our daily lives.

Building a shared awareness of the indicators of nature-deficit disorder helps to build a bond that connects us all to the importance of re-righting the balance for children, and for us all. *Last Child in the Woods* serves as a powerful voice to connect increasing numbers of people—hear the message, and you get it, and you can help spread it to others. Building a shared awareness of the benefits to us all through the human-nature connection is equally if not more important. All of us can help disseminate the key messages of this movement to help reconnect children and nature.

In this movement, this reminds us to create opportunities for all people, of all ages, incomes, and ethnic groups, and in communities of all sizes and locations, to feel a sense of shared purpose with one another, to be mutually supportive of one another. Everyone in a community has a vested interest in the health and well-being of children. It helps when whole communities work together on a mission and goals; when there is agreement and shared commitment to making tangible steps and taking action to create places, spaces, opportunities, and experiences by which children in their everyday lives are connected to nature for their healthy development and well-being.

The media can help, and are beginning to do so, with stories like one about Nature Clubs for Families that appeared on the Today Show; front page stories in the Washington Post, San Francisco Chronicle, and Boston Globe, and a full feature in the weekend edition of USA Today. Communications tools such as Web sites, texting, online communities of interest, blogs, electronic newsletters, and other forms of outreach and inclusion are all serving as powerful ways to nourish and support this sense of connectedness—this sense of being a part of something purposeful, inspiring, healthy, and commonsense—that is at the heart of this movement to reconnect children and nature.

We also need gathering places—some can be designed and enhanced. And a great many already exist, often in the form of neighborhood, city and regional parks within easy reach of many children and families. Neighborhoods can be more children and nature-friendly. Some places are taking down backyard

fences and designing commons areas for children to play safely with an appropriate amount of supervision. Rooftops are being turned into gardens and play areas, safe above what can be dangerous streets below. The Children & Nature Network with a set of allied organizations has submitted suggestions to the US Green Building Council to include children-and-nature friendly design criteria in its LEED certification for neighborhoods.

In addition to places and spaces in which children can freely explore and connect with the natural world, we thrive and the movement grows through shared experiences. Many young families find it inspiring and confidence-building to plan and share outings in nature with others. They often don't know where or how to start. I noted earlier that the Children & Nature Network has recently launched and developed a free downloadable resource, the *C&NN Nature Clubs for Families Tool Kit: Do It Yourself! Do It Now!* People are forming these nature clubs, inviting friends, family, and whole communities to join them, and having weekly or monthly outdoor adventures in natural areas. KIVA, Happy Trails, and Nature Strollers are examples.

Building a movement by paying attention to the importance of connectedness—in this case a movement that is based on hope, health and well-being—is grounded in laughter, play, wonder, shared adventures, and appropriate risks. The results are exhilarating, inspiring, stress-reducing, and good for everyone.

At the neighborhood and community level, statewide and beyond, one way to foster connectedness is to bring people together in various forms of celebration and activity. Work together to accomplish tangible results. That is the model we are encouraging through our *C&NN Community Action Guide*. There are many approaches to cultivating a movement in which people of all ages recognize that they are genuinely connected to each other.

### **Community**

In many ways, the single most important of the natural guides to building a movement to reconnect children and nature is the concept of community. Key to any successful movement is creating and sustaining a powerful sense of community. People feel a part of something that matters, and are inspired, nourished and supported in the process. Communities in nature are living and non-living parts, all connected into a cohesive whole. Communities can grow and change, while providing a sense of place and comfort. All in all, the movement to reconnect children and nature stands on a belief that healthy children are the heart and foundation for healthy communities. All of the other natural guides—diversity, niche, cooperation, self regulation, optimization and connectedness—fit together within the organizing principle of community. Communities begin with their individual members—in this case, in home and families, with friends and neighbors. To the extent that we consider this movement to reconnect children and nature to be place-based, and in our hearts, we will succeed in re-righting the natural balance for children in their daily lives.

## The Ecology of Hope

Each of these natural guides to creating cultural change by building a movement to reconnect children and nature, in combination with the others, helps to form what I call “The Ecology of Hope.” By applying these natural guides, I believe we will successfully create the kind of social change in a living ecology that is necessary for children’s health and well-being, and their likelihood of living fulfilled, productive and healthy lives as adults. Hope is fundamental to children’s health and well-being. Children need to have successful experiences, every day, of making choices and learning from those results in positive ways. I recently heard Dr. Louise Chawla, a leading researcher and advisor to the Children & Nature Network, say, “No tragedy before fourth grade!” We do a disservice to children if we take away their opportunities to explore, learn and experience the joy and wonder in their immediate natural world—rather than overwhelming childhood with the calamities of scale affecting people and the planet.

Hope is derived from the exercise of will. Success in exercising will, on whatever scale, develops a sense of efficacy—that is, a perceived belief that I or you can make a difference. Combine the exercise of will with the experience of efficacy and hope is the result. To a large extent, today’s children live within a culture of depression, not an ecology of hope. The children and nature movement is building an ecology of hope.

For young children, efficacy and hope are nourished by playing in wild and semi-wild places outdoors—turning over a rock and feeling connected to all of life; climbing a tree and feeling a surge of confidence and exhilaration, peace and perspective; having an adult share a place so special that the child feels valued and develops a lifelong connection to the power and the beauty of the natural world.

### Actions We Recommend

Here are a few things you and others can help to do to re-connect children and nature, by your own actions, and, if not directly, by your support and encouragement for others. These are only a few examples of actions we recommend. There are a host of other resources and recommendations, two of which are the Children & Nature Network Web site ([www.childrenandnature.org](http://www.childrenandnature.org)) and the updated 2008 version of Richard Louv’s *Last Child in the Woods*, with its “100 Things You Can Do.”

### *Inside and Nearby Schools*

- Reinststate recess where it has been eliminated.
- Integrate outdoor and nature-based experiences throughout the school curricula.

- Affirm those teachers who have always brought the outdoors indoors, with live plants, natural materials, ecologically-based learning laboratories and opportunities to connect with the outdoors.
- Maintain, expand or add areas of native plantings, schoolyard habitat projects, school gardens and diverse natural areas to the school grounds and nearby neighborhoods.
- Get parents and the community involved—because nature-based learning is good for everyone.

### ***Within Communities***

- Map it. Make sure that healthy, outdoor places to play are in walking or bike-riding distance of every child.
- Start new neighborhood watches, where parents and others take turns keeping an eye out so that children can play safely outdoors, exercising their imagination and getting a taste of “free range play.”
- Get together with friends, family and neighbors and start monthly outings as part of a neighborhood’s, interest group’s or community’s Nature Clubs for Families.
- Take turns riding a bike or walking with children every day to school.
- Take down a few backyard fences to share common, naturalized play spaces for children, or build rooftop naturally-vegetated play spaces, or plant community gardens, and narrow the streets so that children can more safely cross them or ride their bikes in the neighborhood.
- Take out at least some of the playing fields and asphalt to bring naturally vegetated play areas to every neighborhood.
- Support and encourage the efforts of architects, engineers, civic leaders and community planners to re-connect living and working spaces with the natural world—from green engineering to biophilic design.
- Where you can, if you are in the position to make or influence these decisions, require engineers, architects, land developers, and civic leaders to implement these ecologically sustainable and eminently restorative practices in new building and community construction, and in renovations of existing buildings and communities.
- Through your businesses, churches, schools, philanthropy, creativity and commitment, develop community support for reconnecting children and nature.
- Educate parents, grandparents and other caregivers about the cognitive, physiological, and emotional benefits to children who play in the out-of-doors on a regular basis.
- Reach out to civic groups and policy makers to educate them about the importance of preserving wild and natural areas within cities.
- Educate architects, builders, community planners and civic leaders about the need for areas of native habitats in planned developments and existing neighborhoods, so children have places to play that foster their imagination.
- Engage the physicians to encourage them to prescribe nature-play, because it is good for children.

### ***In Our Daily Lives***

- Take a child outside.
- Spread the word.
- Make re-connecting children and nature a priority.
- Encourage children-friendly spaces and places throughout our communities.
- Join the movement! Join us at [www.childrenandnature.org](http://www.childrenandnature.org).

### **A Sense of Urgency**

There is a time urgency involved in addressing all of these issues and in implementing the strategies I am suggesting today. A few years ago I said that I believe we have one decade to turn this around, one decade to make a necessary difference. Now I think we have from two to five years to lay the groundwork and mount the change. I think all of us can help, can do our part—and I think we will succeed. I think the momentum is phenomenal, inspiring, and authentic. Having said that, there is much to do to move this movement from an emerging force to a permanent shift in which a healthy, natural balance is restored in children’s lives. Each one of us can help, one child and one young person at a time. We have, all of us, an immense and important set of opportunities to help “move this movement.” We can work to change policies and practices, attitudes and behaviors. Most important, we can all help to build the necessary awareness that will result in parents, grandparents, teachers and whole communities making the changes in everyday life that will serve to reinstate children’s rights to a healthy childhood.

We will succeed in turning around these trends of the past few decades. We will reconnect children and nature, healing children and humanity in the process as well. We will be a generation who opens the doors again for children to know and feel the joys of wonder, awe and respect for the natural world. We will leave, for generations to follow, a legacy of leadership and an ecology of hope.

\*\*\*\*\*

### **Resources**

Children & Nature Network (C&NN), [www.childrenandnature.org](http://www.childrenandnature.org), a non-profit organization co-founded by Richard Louv, Cheryl Charles and others, to build a movement to reconnect children and nature. Provides news, articles, resources and annotated bibliographies of research while encouraging grassroots leadership.

## References

*Coming Home: Community, Creativity and Consciousness*, by Cheryl Charles and Bob Samples. Fawnskin, CA: Personhood Press, 2004.

*Last Child in the Woods: Saving Our Children from Nature Deficit Disorder*, by Richard Louv. Chapel Hill: Algonquin Books, 2008, 2005.

*Children and Nature: Psychological, Sociocultural, and Evolutionary Investigations*, edited by Peter H. Kahn, Jr., and Stephen R. Kellert. Cambridge, MA: MIT Press, 2002.

“*Healthy Planet, Healthy Children: Designing Nature into the Daily Spaces of Childhood*,” by Robin C. Moore and Clare Cooper Marcus, in *Biophilic Design: The Theory, Science and Practice of Bringing Buildings to Life*, edited by Stephen R. Kellert, Judith H. Heerwagen, and Martin L. Mador. Hoboken, NJ: John Wiley & Sons, 2008.