

NATIONAL CONSERVATION LEARNING SUMMIT

**CONVENED BY THE PAUL F-BRANDWEIN FOUNDATION AND
THE PARTNERSHIP FOR CONSERVATION EDUCATION**

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National Conservation Training Center
Shepherdstown, West Virginia

ONE PERSPECTIVE ON FRAMING THE SUMMIT'S CHALLENGE

BY CHERYL CHARLES, PH.D.

Executive Summary

This paper is intended to help kick off the dialogue among all those attending the National Conservation Learning Summit, November 4 – 6, 2005. Mine is only one perspective, and does not necessarily reflect the views of other members of the Planning Team for this Summit. The paper opens with a rationale for the Summit, and offers some comments on the two principal organizing questions: How Do We Get More People into the Natural Resource/Conservation Professions, and How Do We Get More People to Care about Conservation of Natural Resources and Nature. Some suggestions are offered for what we can do, with a description of what I believe are a few necessary next steps to achieve a healthy and sustainable future. We need a new level and a new kind of collaborative thinking and cooperation. To succeed, there must be a collective change of consciousness to achieve a new conservation commitment.

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Why Care and Why the National Conservation Learning Summit?

Massive and complex changes are underway. Symbolized by the erosion of precious topsoil into the waterways of the planet, our conservation roots are at risk. Strong and clear voices have been exhorting the many to action. But the efforts are fragmented. It is not clear whether there is a critical mass. Is there sufficient will to transcend differences in order to create a cohesive, coordinated conservation commitment now, and into the future?

In my view, there is currently not sufficient cohesion to create a substantial, systematic, systemic approach to addressing the problem. What is the problem? Consider a set of interrelated issues and trends:

- Children and youth today have little direct experience with the out-of-doors.
- Liability, litigation, fear for safety and lifestyle changes are contributing factors to the youngest generations' disconnect from unstructured, daily experience in natural settings.
- At the other end of the continuum, the big "boomer" generation has the opportunity to retire in record numbers. Some estimates indicate that as many as 60% of the most senior federal employees are eligible to retire in 2007. Many of those are in conservation and natural resource fields. A brain drain is imminent and its impact will be long felt.

David Suzuki sent his regrets that he cannot attend this National Conservation Learning Summit. David said:

“I believe we face a problem of perception. Most North Americans live in cities where nature seems irrelevant, except as entertainment, and the economy dominates our priorities. The economy itself is based on consumption and considers nature and nature’s services an externality. Meanwhile, kids are assaulted with commercials to buy, buy, buy while news laud our scientific and technological ‘breakthroughs’ that foster the notion that we know everything and can manage it all. No wonder conservation is in deep trouble. I hope your conference will focus on root causes and not simply on recruiting more people.”

David Suzuki in correspondence with Stewart L. Udall, August 2005

Even if there are sufficient numbers of people to fill the nation’s senior policy and program roles for stewardship of the nation’s resources in the coming decades, will they have the necessary expertise? And even if today’s young professionals help address the problems of complex ecological issues, pollution, overpopulation, climate change, species loss, and habitat destruction, who will be there in 25 years to step into those senior roles? 50 years? 100 years? Who is preparing today’s youth for tomorrow’s challenges?

It is the nexus of these issues and trends, and the questions they raise, that led a small group of people to begin the conversation and assemble the resources that led to the National Conservation Learning Summit. The Summit is one step—a visible beginning to awakening a new imperative by fulfilling the Partnership for Conservation Education, beginning in the United States. While this paper begins in the context of North America, and the National Conservation Learning Summit has the United States as its initial focus, these are planetary issues. For the purposes of kicking off this preliminary dialogue, and anticipating the dialogue that will follow, a few comments related to the planetary context are also included. We are addressing a compelling imperative—to awaken a new conservation consciousness to create a healthy and sustainable future.

Organizing Questions for the National Conservation Learning Summit

Two driving questions are the organizing focus for the Summit:

- How do we get more people into the natural resource/conservation professions?
- How do we get more people to care about conservation of natural resources and nature?

I will start with the second question first, because I believe that lack of intimacy, knowledge and direct experience with the natural world are at the core of the problem we face in getting more people to become natural resource and conservation professionals. And I believe the problem is growing worse. Part of the cumulative problem is what Peter Kahn calls, “one of the most pressing and unrecognized problems of our age—the problem of environmental generational amnesia.” Peter defines that condition in this way:

“We all take the natural environment we encounter during childhood as the norm against which we measure environmental degradation later in our lives. With each ensuing generation, the amount of environmental degradation increases, but each generation in its youth takes that degraded condition as the non-degraded condition—as the normal experience. I have called this phenomenon environmental generational amnesia.”

Peter H. Kahn, “Children’s Affiliations with Nature,” in Chapter 4, *Children and Nature*, co-edited by Peter H. Kahn, Jr. and Stephen R. Kellert, MIT Press, 2002

We need to recognize this phenomenon and related phenomena that have children less and less experienced with a healthy, natural, and even wild out-of-doors—and then we need to turn it around.

Some of the most eloquent of those who describe the importance of children, youth and young adults having direct experience in the out-of-doors are Gary Paul Nabhan and

Stephen Trimble in *The Geography of Childhood: Why Children Need Wild Places* (Beacon Press, 1994) and Richard Louv, in his recent book, *Last Child in the Woods: Saving Our Children from Nature Deficit Disorder* (Algonquin Press, 2005). Stephen Kellert is among the academic naturalists who is good at generating and synthesizing supportive research, exemplified in Chapter 3, “Nature and Childhood Development,” in his newest book, *Building for Life: Designing and Understanding the Human-Nature Connection* (Island Press, 2005). Of those most skilled at taking children out-of-doors in the past few decades, one of the most consistent and effective is Joseph Cornell, author of the classic, *Sharing Nature with Children* (Ananda, 1979).

As an example of his contributions to this discussion, Richard Louv makes the case for the importance of connecting children with the out-of-doors:

“At the very moment that the bond is breaking between the young and the natural world, a growing body of research links our mental, physical and spiritual health directly to our association with nature—in positive ways. Several of these studies suggest that thoughtful exposure of youngsters to nature can even be a powerful form of therapy for attention-deficit disorders and other maladies . . . Reducing that deficit—healing the broken bond between our young and nature—is in our self-interest, not only because aesthetics or justice demands it, but also because our mental, physical and spiritual health depends on it.”

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

How Do We Get More People to Care About Conservation of Natural Resources and Nature?

It takes a long-term and wide view to address this question. We need to look at what has brought us to this point, assess the current status with realism and hope, and literally re-vision a new societal and cultural framework. I will ask others to provide the history, with, for our purposes, an emphasis on conservation, outdoor, science, and environment

education in the United States, Canada, and the rest of the world. I will provide a personal commentary and some observations, in the spirit of fostering dialogue—on the road to some common agreements.

As one who labored long and hard for 20 years at the national level among those committed to integrating science, social science and environment education pervasively in the K-12 curricula, I still have hope. I see the mixture of aspiration and idealism that sometimes brought us successes. I also see the fragmentation and zealotry that I think contributed to our failures. Now, to a great degree, all of those are among the factors contributing to the current state of affairs where there is a backlash against environment education in most of the school systems of this country. Specific to integrating ecological perspectives, with civic underpinnings in social responsibility as part of the fabric, we have slipped backwards. Some of this is political, and not necessarily partisan. Some of this is tied to the directional changes in lifestyle in this country. When you are living in a high-tech, cocooned, litigious environment with many, many latchkey kids who stay indoors, there is not a counterbalance of daily direct experience to bring some common sense to the table of daily bread.

Some of you know that, in 1976, I stated my personal goal—that every child, in every classroom, every year of school, would experience education about the environment. Coming from the disciplines of the social sciences, and with a family background steeped in conservation and natural sciences, I wanted it all. I wanted to see a cohesive, comprehensive approach to integrating ecological concepts into the fabric of schooling. And I wanted that grounding to be coupled in the tenets of democracy and informed decision making in a civic society. Thanks to the talents and tenacity of many, I have often said that we made some real progress. From a few thousand teachers in Project Learning Tree workshops in 1978, to 40,000 plus annually in the early 90s in Project WILD workshops alone, K-12 teachers were getting support to integrate conservation and environment concepts within the curricula. And, even more important, they—the teachers—were given the opportunity to learn and laugh, play and work, in the out-of-doors themselves. When I left the role of national director of Project WILD in 1993, we

had, by many measures, reached a critical mass. About 17% of the nation's teachers had participated in Project WILD workshops averaging six hours in length at that point in time. I frequently worried about the quality and depth of what actually reached the classroom, but I was genuinely heartened by the sea change we were seeing, the numbers of people involved, and the promise this all spoke for improving children's ecological literacy and, subsequently, informed civic choices. And, for the purposes of this Summit, I believe that such grounded educational experiences are part of what is needed to prepare the next generation of career professionals in the conservation and natural sciences.

I still do. But there are greater problems than what is going on within the schools. It starts at home.

It is increasingly evident that many young people get few opportunities to play in natural areas in the out-of-doors. Natural areas can be anything from an undeveloped city lot that still has vegetation, to a suburban desert, to a rural woods, to a lake's edge, to a large forest. It can even be a city park—particularly one of some size with naturally vegetated areas, like both Central Park in New York and Golden Gate Park in San Francisco have been for many generations of youth.

What is available now, and is diminishing, is in dramatic contrast to the experience of earlier generations who had responsibilities for working a family plot of land—from a home vegetable garden to a ranch or farm—to those who hunted or fished for the season's food. Those daily experiences of tending or hunting animals, working from dawn to late in the out-of-doors, are the domain of far fewer people today. And even camping in the out-of-doors, a substitute for daily work but still a powerful way to connect with the mystery and beauty of nature, is on the decline.

What are the costs? They may be many, according to an accumulating body of research. Beyond the research, there is a strong intuition among many of us that we are losing more than is healthy for the long term.

To the data—a variety of researchers indicate that children’s cognitive flexibility and creativity are enhanced if they have the experience in childhood to problem-solve in natural settings versus highly controlled, human-dominated, managed settings like concrete playgrounds and even manicured playing fields with less ecological diversity. Beyond cognition, there are mental health benefits. There is now a substantial body of work over decades that indicates the simple act of going outdoors reduces people’s stress, anxiety, depression, and even attention-deficit disorders. When a walk in the woods can substitute for a heavy dose of behavior management chemicals like Ritalin, we should pay attention. With people of all ages, the results are dramatic. Given our question about how to get people to care about the out-of-doors again in greater numbers, one reason will be self-serving, and that is okay in my book. People’s overall health, peacefulness and general wellbeing will be enhanced to the degree that we spend some time on a regular basis in the out-of-doors. It can be as simple as what my Grandfather called his “evening constitutional,” a 30 minute walk before dinner.

So there are immediate physical payoffs for those of us who get outside, but there is obviously more. If we are in the out-of-doors, and on a regular enough basis to watch the seasonal changes, as one example, we learn about “place.” We learn about the natural cycles and changes of an ecological setting. That is a precious story. To the extent that any of us does that on a regular basis, we are going to be more inclined to have a more complex understanding of that natural system—and potentially other natural systems.

Those outdoor experiences are a fundamental foundation for the opportunity to care about the living world. They are a foundation for creating more expertise first hand and direct, rather than indirectly, through media. They are pre-requisites for sufficient understanding of ecological systems to have a greater likelihood of making informed policy and practical decisions—from who to vote for in an election, and what actions to support when it comes to land use policies, as two examples. We, as an electorate, will be better positioned to make informed choices about politicians and policies that affect everything from our neighborhoods to the planet itself, if we begin by having direct experience in natural settings ourselves.

Beyond an informed electorate, direct experience in the out-of-doors tends to be a precursor to career choices that involve work related to everything from architecture to science to conservation. That is why addressing this question—“How do we get more people to care about conservation of natural resources and nature?”—is a precursor, in my view, to the question, “How do we get more people into the conservation/natural resource professions?” This leads to the second question.

How Do We Get More People into the Natural Resource/Conservation Professions?

Two of the planners for this Summit, David Blockstein, Executive Secretary, Council of Environmental Deans and Directors and Senior Scientist, National Council for Science and Environment, and Maxine Levin, US Department of Agriculture-Natural Resources Conservation Service, had an electronic conversation in advance of the Summit where the following comments were made.

David said:

“We now have more than 1,000 interdisciplinary environmental programs at colleges and universities. These programs are still growing in numbers and strength. My concerns represent a perspective that I have expressed at our planning meetings—we do not have a ‘sky is falling’ situation with conservation science and management. Rather, we have a disciplinary shift from the traditional natural resource fields to newer fields such as conservation biology and environmental studies. I believe that this is a healthy shift towards fields that are much more engaged in people management as opposed to resource management . . . I believe that the issues of ecological literacy and the ‘Nature Deficit Disorder’ are very serious and need to be addressed. However, I think that this is less a problem for the future conservation workforce (we are producing enough students to fill the jobs) but a very serious problem for society in terms of lack of national commitment to conservation.”

And Maxine said:

“This discussion opens my eyes to the issue that from the ‘old school’ government point of view we are not getting recruits with basic science knowledge of natural resources (i.e., soils, range, forestry, wildlife, microbiology, plant sciences) but that point of view is not seen by everyone. What my agency has seen in the last 10 years is that the universities are cranking out liberal arts style interdisciplinary degrees of generalists while we find in federal government (old school) that they do not have enough of a technical knowledge base to deal with the real life questions we need to answer in our day-to-day jobs. Environmental programs with no soil science, chemistry, math and engineering in their base core curriculum have produced excellent future lawyers and activists but not individuals who have skill sets to do objective, science-based conservation planning with farmers, landowners, developers, engineers and regional land planners. Conservation biology and environmental studies majors often do not have a knowledge base to add any practical substance to technical solutions. If the skill set doesn't include basic natural resource science at its core, we question the technical solutions that these students are capable of producing. People skills are important but the day-to-day work involves answering questions to do with water, soils, and wildlife issues with engineering and land management solutions. I believe that these technical and people skills are not mutually exclusive.”

This set of observations from David and Maxine leads to what is needed to not only attract the next generation of conservation and natural resource professionals, but to make sure they have the necessary expertise.

There are varying positions about whether or not there is a problem concerning the next generation of resource professionals. Some, like Terry Sharik, provide evidence that the numbers of graduate students in the conservation resource fields is declining. And, Tom

Friedman, among others of eloquence, in his most recent book, *The World Is Flat* (Farrar, Straus & Giroux, 2005), cites evidence to indicate that the United States is not only producing far fewer scientists, but other nations are stepping up. Even if many international scholars were interested in conservation and natural resource positions in the United States, and if hiring policies allowed non-US-citizens to take some of those roles where there are currently prohibitions for non-citizens to be so employed, there is also the palpable problem of those qualified persons having little or no direct experience with these environmental conditions and ecological settings. There are transferable learnings, and, at the same time, this talent resource does not fully solve the problem.

There are, however, enormous opportunities available in cultivating a world consciousness. One place to begin is with those young people, particularly in developing countries where they are taking a stand for protecting environmental quality as they work to bring their countries into more prosperous and democratic economies. Much of the leadership for achieving democracy in emerging nations has stood on a platform of both environmental quality and human rights. Those of us in the United States would do well to learn from those leaders, from the former Czech Republic to Kenya.

So What Can We Do?

One of the breakthroughs I believe we need to make is to create a whole new level of cooperation. We need an authentic and powerful change of consciousness. We have to figure out how to bring together the many like-minded people who see and sense these problems, and, if given the right opportunities and encouragement, could work together to help address them. And, we need to enfranchise those who, at the moment, think they are at odds with this thinking. We are more alike than different, and, in the end, and for the future, we have to come to a common mind—and I believe a collective consciousness—about the big issues that will sustain us all, and the planet itself, for future generations.

Solutions to these problems are the focus of the National Conservation Learning Summit. We have much to discuss to sort through our differences to get to common ground. Those of us in attendance start with much in common. We all believe in work and/or experience involving the natural world. We probably all believe in the potential, if not the practice, of educational systems. We probably all recognize the power of alternative and mainstream ways of learning that come from non-school settings and new technologies. We all care about conserving natural resources, without all being in philosophical or political agreement about how to achieve those goals. And we, as a group, value scholarship as well as action. We are more alike than different, and yet, we are not yet a unified, cohesive group—poised and positioned to foster collaboration and cooperation to achieve some new solutions that could help to create a healthy and sustainable future. I personally believe that is the greatest challenge we as participants in this National Conservation Learning Summit are about to face.

Some of the remedies being suggested:

- Educate parents about the cognitive, physiological, and emotional benefits to children who play in the out-of-doors on a regular basis.
- Educate community planners about the need for wild areas in planned developments, so children have places to play that foster their imagination.
- Support and encourage the efforts of architects and engineers to re-connect living and working spaces with the natural world.
- Reach out to civic groups to educate them about the importance of preserving wild and natural areas within cities.
- Bring the best of the conservation and environment education curricula to pre-schools throughout the country.
- Try again, with a new approach, to integrate ecological education into the mainstream of K – 12 schooling.
- Re-invigorate and multiply school-yard habitat projects.
- Reach out to the nature, conservation, and environment educators who have retired, and create a new network of Green Grannies and Granddads who will volunteer to take children into the out-of-doors.

- Assemble a creative group of attorneys who can break through the liability and litigation maze to provide counsel to organizations and individuals who want to provide such outdoor opportunities for youth.
- Reach out internationally to create a new global fabric of caring adults who feel the connections that are possible to maintain and sustain a healthy living planet.
- Assemble and communicate a solid, coordinated set of facts about the trends in higher education and careers in the natural resources.
- Find a way to effectively communicate the importance of all of these issues.
- Connect the main problems of the planet today—poverty, disease, environmental degradation—to the opportunities we can find together to solve these problems.
- Continue to foster democracy and economic sufficiency within the framework of a sustainable ecology.
- Bridge the virtual and the physical world, manifesting John Naisbitt’s prophecy of “high tech, high touch,” and Steve Kellert’s and Edwin O. Wilson’s “biophilia,” to achieve a healthy balance for the future.
- Invent new solutions, daring to be bold in service of the conservation consciousness that is needed for a healthy future.
- And, as my husband, Bob Samples, said, more than 30 years ago, “The first classroom is outside. Get into it.”

So what are we to do? The first step is dialogue, the second is participation, third is to develop a specific agenda for action, and fourth is a comprehensive commitment to fulfilling a new conservation agenda—one that is inclusive, creative, collaborative, and coordinated. No level of such cooperation has ever been envisioned or so needed. The means to achieve this level of cooperation requires a change of consciousness. It will begin in each of us as individuals, and then, will multiply into an ever-widening number of communities across the planet. Thank you for joining us in the enterprise. We are just beginning.

APPENDIX

Here, I invite any of you reading this to send additional quotes, statistics and observations as resources to this paper. In addition, we hope you will join in the online dialogue that is available to those participating in this Summit and the Partnership for Conservation Education at [www. Brandwein.org](http://www.Brandwein.org).

Demographics and Directions

Here are some of the data that are driving our concerns and dimension potential opportunities:

Over one-half of the Senior Executive Service (SES) members at the Department of the Interior (DOI), USDA Forest Service, and Environmental Protection Agency (EPA) will retire by 2007 . . . Within that same period, DOI will lose 61% of its program managers, the Forest Service will lose 81% of its entomologists and 49% of its foresters, and EPA will lose 45% of its toxicologists and around 30% of its environmental specialists.” (*Renewable Resources Journal*, Winter 2003 – 2004, page 7)

Undergraduate enrollment in natural resource programs has been declining, in the period from 1980 to 2003, according to research conducted by Terry Sharik and Kathy Early, Utah State University. (*Renewable Resources Journal*, Winter 2003 – 2004, page 13)

Two-thirds of the nation’s mathematics and science teaching force will retire by 2010. (According to the National Commission on Mathematics and Science Teaching for the 21st Century, cited in *The World Is Flat*, by Thomas Friedman, Farrar, Straus & Giroux, 2005, pages 256 – 257)

Our 50 plus population has 70% of all the wealth in our country, 80% of all the money in savings and loans institutions . . . Nearly 80% of boomers want to continue working when they reach retirement age, with 42% wanting to rotate between work and leisure. (Quoting Ken Dychtwald in an article about him and his work, *Fortune*, July 2005)

About the Author

Cheryl Charles is an author, educator, curriculum developer, facilitator and non-profit organizational executive. Great-grand-daughter of New Mexico conservationists, and rooted in the vision of the generations that followed, she has had a long career at the national and international level in conservation and environment education. She was National Director of Project Learning Tree from 1976 to 1983, and Founding National Director of Project WILD from 1981 – 1993. Her most recent book, authored with her husband, Bob Samples, is *Coming Home: Community, Creativity and Consciousness* (Personhood Press, 2004). A recipient of the Paul F-Brandwein Award in 1998, she is honored to be among the members of the Planning Committee for this National Conservation Learning Summit.