



CONSERVATION LEARNING SUMMIT

A RE-COMMITMENT
TO THE FUTURE

Cover Photo: Aerial view of National Conservation Training Center Campus, site of the Conservation Learning Summit, by Brian Jonkers, US Fish and Wildlife Service.



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CONSERVATION LEARNING SUMMIT

**A RE-COMMITMENT
TO THE FUTURE**

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Dear Colleagues and Friends,

It was my pleasure to serve as Honorary Chair of the Conservation Learning Summit. By all reports, it was a remarkable and successful event. People from diverse fields formed a partnership committed to bringing conservation back into the public eye. I was impressed by the number of prominent organizations represented and the high caliber of the attendees. The dual challenges of reinvigorating the flow of people into conservation professions and reconnecting the public with conservation in an increasingly high-tech society resonated with participants.

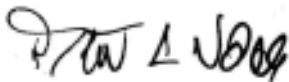
The speakers were top notch, including a noted author, a high-level government official, and ranking congressman. I was particularly proud that my son Tom provided the keynote address and was candid about the policy failings of government. He also spoke of his childhood days when family vacations consisted of visits to national parks. These trips helped to shape both our family's love of nature and our commitment to responsible stewardship of the environment.

The combination of plenary sessions and breakouts, with emphasis on home teams, worked to unite participants to build a shared agenda for moving forward. The facilitators were skillful in capturing the work sessions graphically. The final commitments to address the Summit challenges are impressive. I am heartened that groups from both public and private sectors will work together to achieve them. Our country and the world need more of this kind of collaboration—particularly at a time of enormous challenges such as global warming and the end of “cheap oil.”

I was gratified by the number of young people who attended the Summit, including representatives from the Student Conservation Association, interns at environmental organizations, and high school and college students.

Every generation has a rendezvous with the land. Nothing is more important than the legacy we leave for the future. It will take whole communities and whole nations, working together, to solve the problems we face. We are better off when the community is more important than the individual—when people are judged by how much they contribute to their community. That is why we created this national Conservation Learning Summit. Now I look forward to seeing tangible results and a renewed conservation ethic.














Very truly yours,



Stewart L. Udall
Honorary Chair, Conservation Learning Summit
Former Secretary, US Department of Interior



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EXECUTIVE SUMMARY

The Conservation Learning Summit (CLS), held at the National Conservation Training Center in Shepherdstown, West Virginia, November 4-6, 2005, brought together 80 representatives from government agencies, academia, nongovernmental organizations, philanthropy, and business to discuss issues of extreme relevance to the future of conservation education and the conservation workforce. Increasing needs to reinvigorate the flow of people into conservation professions and a desire to rekindle the strategic convening power of the conservation education conferences, held at the Pinchot Institute 40 years ago, provided the impetus for the Paul F-Brandwein Institute and its partners to convene this Summit to address two major questions:

1. How do we get more people into the natural resource/conservation professions?
2. How do we get more people to care about conservation of natural resources?

Participants engaged in large group sessions with major speakers including Representative Tom Udall, Author and Columnist Richard Louv, and Department of Interior Deputy Secretary, Lynn Scarlett. Following large group sessions, participants met with home-base breakout groups to establish priorities and commitments for future actions. The final set of breakout groups was organized around five issues deemed, by consensus, to be the most critical for future activities.

1. Expanding the Dialogue: Inclusiveness and Partnerships
2. Marketing Awareness Campaign
3. Articulation of Workforce Supply and Demand

4. Connecting Conservation to Issues of Relevance

5. Youth Interaction

Reports from the five working groups presented two or three priority actions that each group committed to implement, working collaboratively with group member organizations. In addition, individuals made commitments on behalf of themselves and their organizations. Follow-up priorities for actions also have been set forth by participating organizations working alone or in partnerships.

Significant among the attendees were the young people who were students and interns, as well as several young professionals, who actively participated in discussions and reporting. Since one of the Summit's goals was to re-engage the nation's youth in conservation, the input and opinions from these young people were of particular importance to all attendees.

In short, the Summit provided a forum for inspiration, re-commitment and new collaboration among many divergent groups of people and organizations. The agenda was crafted to result in the formulation of priorities for future activities to revitalize conservation as a career choice and a habit of mind. The priorities set forth were agreed upon by consensus and were committed to by the Summit participants.

Many of the Summit activities and commitments for action are featured in this document. A video of Conservation Learning Summit highlights and video of the major speakers' addresses are included in the accompanying DVD on the inside back cover.



THE CONTEXT FOR THE CONSERVATION LEARNING SUMMIT

PAUL F-BRANDWEIN AND THE PINCHOT CONSERVATION CONFERENCES

The Paul F-Brandwein Institute, the primary sponsor of the Conservation Learning Summit, is a non-profit organization founded in 1996 to perpetuate the work of Paul F-Brandwein, humanist, author, and master teacher, through educational programs. These programs foster the skills, concepts, habits of mind, and values of the sciences and humanities that form the basis for environmental decision-making in the context of global citizenship. Forty years ago, Paul F-Brandwein and his colleagues played a key role in defining and shaping conservation education in the United States through the Pinchot Institute for Conservation Studies Conferences of 1965 and 1966. These conferences, held at Grey Towers, former home of Gifford Pinchot in Milford, Pennsylvania, brought together a community of leading thinkers and practitioners of conservation education. The participants defined their goals in terms of assuring a citizenry that understood and

Paul F-Brandwein ►
1912-1994



The Pinchot Institute was the site of two conferences to discuss the future of conservation education in the mid-1960s. Paul Brandwein is seated at far left. ▼



supported the value of scientific and rational planning for the efficient use of natural resources. These conferences had a long-lasting influence on many of the participants who, in turn, exerted great influence on the various informal and formal conservation education communities of which they were members. The conference participants went forward with this challenge:

"We must develop new structures, new strategies, new techniques of teaching. We must test and revise until we have developed a culture which recognizes man's interdependence with his environment and all of life and his responsibility for maintaining that environment in a condition fit for life and fit for living."

Paul F-Brandwein

ATTENDEES AT THE 1966 PINCHOT CONFERENCE ON TECHNIQUES OF TEACHING CONSERVATION

Paul F-Brandwein	The Pinchot Institute
Matthew J. Brennan	The Pinchot Institute
Clifford E. Emanuelson	The Pinchot Institute
George L. Fersh	Joint Council on Economic Education
James Gleason	Education Center, Ridgewood, NJ
Helen E. Hale	Board of Education, Baltimore County, MD
Donald R. Hammerman	Lorado Taft Field Campus, Northern Illinois Univ.
LeRoy R. Hardy	Texas Gulf Coast Science Education Resources Ctr.
John J. Kirk	New Jersey State School of Conservation
Edwin B. Kurtz, Jr.	AAAS, Washington, DC
Ernest C. McDonald	US Forest Service, Portland, OR
Joseph D. Novak	Purdue University
E. Laurence Palmer	American Nature Study Society
Charles E. Roth	Massachusetts Audubon Society
Frank R. Salamon	Addison Wesley Publishing Company
Victor E. Schmidt	State University College at Brockport, NY
Herman Schneider	D.C. Heath Elementary Science Series
Herbert A. Smith	Colorado State University
Julian W. Smith	Michigan State University
Theodore R. Speigner	North Carolina College at Durham
William B. Stapp	University of Michigan
Donald W. Stotler	Portland, OR Public Schools
Joseph Strehle	Texas Gulf Coast Science Education Resources Ctr.
Louise C. Watkins	Board of Education, Howard County, MD
Jane Westenberger	San Bernardino County Schools, CA

RATIONALE FOR THE SUMMIT

Some 40 years after the Pinchot meetings, significant numbers of those who were, directly or indirectly, influenced by these conferences are retiring from the conservation science fields. The Renewable Natural Resources Foundation, at its 2003 annual conference, observed that, “Government agencies, particularly those charged with managing and protecting the nation’s natural resources, are facing a crisis. Their employee base is changing as more employees become eligible to retire, resulting in lost institutional memory and difficulties in maintaining core competencies. Agency leadership and science capacity will be most affected.”

In addition, declining enrollment in natural resource higher education programs across the nation since the mid-1990s has raised concerns about the future viability of natural resource and conservation education. Student interest in natural resource professions appears to be on the decline. Increasing the numbers and diversity of students who choose to pursue conservation and natural resource professions is one need. Equally important is the need to look anew at the knowledge and skills these future leaders have to acquire to be successful. The evolving role of government, rapid changes in technological fields and societal changes require a wider range of skills than in the past. These changes are ongoing and will require lifelong learning strategies for conservation scientists to keep abreast of them and remain effective.

Because of the increasing needs to reinvigorate the flow of people into conservation professions and thus to rekindle the strategic convening power of the 1965 and 1966 conservation education conferences, the Paul F-Brandwein Institute and its partners proposed the Conservation Learning Summit (CLS), held in 2005, to bring together a diverse constituency of stakeholders to accomplish the following goals:

- Establish new partnership alignments that create a broad and deep national understanding of the impending gap in the

conservation and environmental science workforce.

- Identify new program initiatives that will encourage and support a sustained national focus on developing the next generation of the conservation and environmental science workforce.
- Develop innovative approaches for aligning the ongoing learning needs of the conservation and environmental science workforce with educational service providers, both formal and informal.



▲ Bridge to CLS meeting rooms at National Conservation Training Center.

The Summit attracted leaders from government, industry, nongovernmental organizations, academia, philanthropy, and education for three days of meetings at the National Conservation Training Center, managed by the US Fish and Wildlife Service, in Shepherdstown, West Virginia. The participants addressed the goals of the Summit and looked at ways to bring conservation back into the public consciousness.

PRECURSORS TO CONSERVATION EDUCATION

Conservation education or environmental education, in various iterations with different terminology, has been around for over a century. Nature study came first as defined in Wilbur Jackman’s *Nature Study for the Common Schools* (1891). The primary focus of nature study was on learning through first-hand observation using experiences inside and outside of the classroom. The American Nature Study Society, America’s oldest environmental organization, was founded

in 1908 and became the leader in serving and strengthening the nature study movement. Nature study was the forerunner to science education in the elementary schools. Outdoor education entered the school curriculum in the mid-1940s (before then it was known as camping education) and became popular in the 1950s and 60s. It was defined generally as the use of resources outside the classroom for educational purposes. It focused on process rather than a specified body of knowledge and served as a vehicle for approaching all school disciplines (McInnis and Albreacht, 1975).

“Outdoor education was designed to provide students with more direct experiences in the community and the surrounding natural areas so that textbooks, films, photographs, and other mediated forms of knowledge transmission would have more meaning to students. The significance of experiential learning is still recognized today, and many teachers enrich their subject matter fields by engaging their students in contextual learning outside the classroom.”

Clifford Knapp, Professor Emeritus,
Northern Illinois University

What was called conservation education came into vogue in the mid-1930s. In 1935, the National Education Association’s Educational Policies Commission stipulated that “...schools may well assume considerable responsibility for checking the ravages upon the heritage of the nation made by ignorance, indifference, carelessness, and unbridled selfishness” (Funderburk, 1948). As a result, many states began enacting conservation education legislation, and conservation education programs made their way into the classroom as well as into many university teacher education programs. Leadership for conservation education efforts came from a variety of organizations, both government and private, and were consolidated and given focus by the Conservation Education Association, established in 1953.

The term Environmental Education came on the scene in the late 1960s and was brought into the American mainstream by the Earth Day

celebration of April 22, 1970. In the early 1970s, schools were inundated with environmental education materials from government agencies, nonprofit organizations, and business/industry. The establishment of the Council of Environmental Quality and the passage of the Environmental Education Act of 1970 stimulated the infusion of environmental education courses into the school curriculum. Environmental education served to unite the interests and emphases of nature study, outdoor education, and conservation education. The impetus that led to environmental education was increased concern for environmental quality and the interrelationships between humans and their environments.

Among the more outstanding environmental education curriculum projects, supported by government and private funding, in the 1980s and 1990s were:

- *Give Water a Hand*, University of Wisconsin Extension
- *Global Learning and Observations to Benefit the Environment (GLOBE)*
- *Global Rivers Environmental Education Network (GREEN)*
- *Learning by Design*, American Institute of Architects
- *NatureScope*, National Wildlife Federation
- *Project Learning Tree*, American Forest Foundation
- *Project WILD, Aquatic WILD, and Project WET*, Western Regional Environmental Education Council
- *Windows on the Wild*, World Wildlife Fund

Worthy of note is the National Science Teachers Association (NSTA) Search for Excellence in Environmental Education that took place in the mid-1980s and identified outstanding K–12 teacher-directed programs across the country. Also, through the ongoing Toyota Tapestry program, begun in 1991 and administered by NSTA, Toyota Motor Sales USA has given several million dollars in grants to school-based environmental science education programs.

THE BIRTH OF NAAEE

Many state and national organizations encompassed environmental education as part of their agendas, among them the American Nature Study Society, the Association of Interpretive Naturalists, the Conservation Education Association, the National Science Teachers Association, the Outdoor Education Association, the Alliance for Environmental Education, and the Coalition for Education Outdoors. However, none had a name that indicated a specific focus on education about the environment *per se* until the National Association for Environmental Education was formed in 1971. The American Nature Study Society and the Conservation Education Association sponsored the First National Congress for Environmental Education Futures in 1983 in which 18 other organizations, including the National Association for Environmental Education, participated. The name was changed to the North American Association for Environmental Education (NAAEE) later in 1983.

Over the years, NAAEE has evolved into a comprehensive environmental education organization, designed to meet the professional needs of the broad spectrum of educators, scientists, agency specialists, and communicators. In 1990, the Conservation Education Association and NAAEE merged, and CEA became the conservation education section of NAAEE.

"In many ways, NAAEE's experience mirrors the North American history of the movement called 'environmental education' to this point in time. From the outset its most obvious problem has been semantic; those approaching environmental education from its several dramatically different perspectives are likely to say the same words when they mean different things; apparently unknowingly, they have talked past each other since the field was named, and continue to do so. These difficulties with language are actually indicators of striking contrasts in viewpoints, illustrated clearly by very real dissimilarities in two



different sets of worldviews—one concerning the "proper" relationships between humans and the rest of the environment, the other about what education is, is not, should be, and should not be. External pressures, from other educators and from representatives of the full range of environmental perspectives, continue to compound the situation and intensify tensions both within and about the field."

John P. Disinger, 2001

According to Martha Monroe, current NAAEE president, "As conservation education and environmental education have evolved, the differences between them have changed. At one time the term conservation education was used strictly to refer to conserving natural resources such as soil and wildlife habitat and not used for issues from the built environment such as energy conservation, carpooling, and recycling. Today's resource agencies may see conservation education as covering both sets of issues. The other major historic difference was in purpose. Conservation education initially used methods such as field trips, science experiments, guest speakers, and demonstrations to share information and promote natural resource careers. Environmental education was born in a time of political awareness, so part of its heritage is empowering citizens to have the commitment and skills to become politically active in environmental issues. On the other hand, the backlash movement has cautioned many environmental educators to avoid issues and changing behaviors. Environmental education provides skills and opportunities so participants can make their own decisions. Interestingly, many natural resource agencies are now using social marketing techniques to create new social norms that favor conservation. If this is part of conservation education, it may have leapfrogged over environmental education in the behavior change dimension."

CONSERVATION CONFERENCES

There are some signs that conservation education is coming back into popular usage. In 2004, the



International Association of Fish and Wildlife Agencies (IAFWA) held a Summit on Conservation Education to chart a strategic course for the future of conservation education in state fish and wildlife agencies. This Summit gathered key conservation education administrators of state fish and wildlife agencies, as well as other invited participants, to discuss education trends and to hear from experts on the future of education. The approved goals for the conservation education strategy under development are:

- Elevate the value of conservation education.
- Advance the conservation education agenda.
- Achieve excellence in conservation education.
- Maximize partnerships.
- Secure funding for conservation education.

To mark its 50th anniversary, the Student Conservation Association (SCA) and the National Park Service will co-host the first national Youth in Conservation Summit in October 2007. SCA plans to have 500 young people in attendance. The purpose of this national Summit is to promote the engagement of youth in conservation. The goals of the Summit are to:



- Demonstrate and promote the power of young people to conserve America's natural resources.
- Demonstrate the ability of young people to lead conservation in action.
- Demonstrate the critical needs to and benefits of engaging young people in conservation for the health of our natural, cultural and human resources.
- Identify new ways to engage young people and new areas and opportunities for their contributions.
- Demonstrate to young people that there is a pathway ahead in conservation, and raise awareness of SCA's national role in bringing young people into the conservation community.

CURRENT CONSERVATION EDUCATION PROGRAMS

A number of organizations represented at the Conservation Learning Summit have programs focusing on conservation education. A sampling of these programs is listed below.

■ The National Wildlife Federation has initiated a national campaign called the Green Hour. The campaign encourages parents and teachers to get kids outside for an hour a day so they can bond with nature. Commentary on what parents should know about and can do to counteract common "nature deficit disorders" in their TV-watching, video game-playing children can be found on the Green Hour blog site. <http://greenhour.blogspot.com>

■ The Aldo Leopold Foundation has launched the Land Ethic Campaign that includes provisions for conservation education programs and outreach through web-based distance learning. A future phase of the campaign will focus on Private Lands Conservation Education to improve public understanding of ecological and ethical land stewardship. <http://www.aldoleopold.org/About/landethic.htm>

■ The Bureau of Land Management plans to greatly expand participation of BLM field sites in the interagency Hands on the Land (HOL) program, a nationwide network of field classrooms that provide a diverse array of hands-on and web-based learning opportunities for teachers and students. HOL is sponsored by Partners in Resource Education, a collaboration of five federal land management agencies, a non-profit foundation, schools, and other private-sector partners. <http://www.handsontheland.org>

■ Disney's Animal Kingdom Conservation Education programs combine wildlife knowledge and storytelling to inspire visitors to conservation action. Each program targets a specific environmental concept with the goal of promoting awareness of conservation issues. <http://www.izea.net/education/programs.htm>

■ The USDA Natural Resources Conservation Service (NRCS) Backyard Conservation program offers tip sheets and lesson plans that demonstrate how conservation can help increase food and shelter for birds and other wildlife, control soil erosion, reduce sediment in waterways, conserve water and improve water quality, inspire a stewardship ethic, and beautify the landscape.

<http://www.nrcs.usda.gov/feature/backyard>

■ The USDA Forest Service Conservation Education (CE) program supports education of teachers, students, and adults of all ages and emphasizes delivery of conservation education to underserved youth, urban populations, and forest visitors. The CE staff provides agency-wide leadership for a renewed focus on conservation education reflecting themes of sustainability of natural and cultural resources in forest, grassland, and aquatic ecosystems, and awareness and understanding of interrelationships in natural systems and between people and the land. The website provides materials, curricula and activities concerning forest, grassland and aquatic ecosystems, and the interrelationships within natural systems and between people and the land. A major CE program focus is supporting a wide variety of local and regional conservation education programs including the Urban Treehouse programs in Atlanta, GA; Milwaukee, WI; Washington, DC; and Portland, OR. Urban Treehouses provide places for delivery of conservation education to urban youth.

<http://www.na.fs.fed.us/spfo/ce>

■ The Youth Conservation Corps (YCC) is the most well-recognized youth program of the National Park Service. The YCC has been instrumental in introducing young Americans to conservation opportunities in national parks since the program was created in 1970 through a partnership between the US Department of Interior and USDA Forest Service. The YCC has worked with many conservation agencies throughout the country to provide educational and team-building skills for young people. Hundreds of employees currently working in

land management agencies were introduced to the field via the Corps. The longevity of this program and the fact that it is consistently mandated by Congress make it clear that the term “conservation” has never really gone away. <http://www.nps.gov/youthprograms/ycc.htm>

The shift in focus of the traditional environmental education community and the conferences and programs on conservation themes provide a basis for hope that these initiatives will work in tandem to provide broad consensus and maximum impact. New, ongoing, and planned conservation and conservation education endeavors insure that the term “conservation” remains in the public vernacular.

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ONE PERSPECTIVE ON FRAMING THE SUMMIT'S CHALLENGE

By Cheryl Charles, Ph.D.

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, and it is not clear whether there is a critical mass. 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 "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, noted Canadian environment science broadcaster and writer, sent his regrets



▲ Cheryl Charles

that he could not attend the Conservation Learning Summit. In his note to Stewart Udall, 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."

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?



▲ Cheryl Charles at the Conservation Learning Summit speaking with Danny Morris.

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's context is North America, and the national Conservation Learning Summit had the United States as its focus, this discussion involves planetary issues. We are addressing a compelling imperative to awaken a new conservation consciousness to create a healthy and sustainable future.

ORGANIZING QUESTIONS FOR THE CONSERVATION LEARNING SUMMIT

Two driving questions were 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, "environmental generational amnesia." That is, 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 (Peter H. Kahn, *Children's Affiliations with Nature*, 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 make drastic changes. Some of the most eloquent of those who describe the importance of children 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). These authors provide strong evidence of the therapy provided by nature for our mental, physical, and spiritual well-being. It takes a long-term and wide view to address the question of getting people to care about conservation of natural resources and nature. 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.

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. We are living in a high-tech, cocooned, litigious environment with 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.

In 1976, I stated my personal goal, that every child, in every classroom, every year of school, would experience education about the environment. 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



▲ The National Conservation Training Center, site of the Conservation Learning Summit.



▲ CLS meet and greet reception.

of many, 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 1990s in Project WILD workshops, 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. 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. 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.

However, there are greater problems than what is going on within the schools. The problems start 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. 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. Even camping in the out-of-doors, 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. 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 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, we should pay attention. With people of all ages, the results are dramatic. Our overall health, peacefulness, and general well being will be enhanced to the degree that we spend some time on a regular basis in the out-of-doors.

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, we learn about "place." We learn about the natural cycles and changes of an ecological setting. 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 rather than indirectly, through media. They are prerequisites for sufficient understanding of ecological systems to have a greater likelihood of making informed policy and practical decisions. 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.



▲ Lunch-break picnic at the CLS planning meeting.

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 the question "How do we get more people to care about conservation of natural resources and nature?" is a precursor to the first question, "How do we get more people into the conservation/natural resource professions?"

Here are some of the data that are driving our concerns:

- 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)
- 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)

- Two-thirds of the nation's mathematics and science teaching force will retire by 2010. (National Commission on Mathematics and Science Teaching for the 21st Century, 2000)
- 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 *Fortune*, July 2005)

There are varying positions about whether or not there is a problem concerning the next generation of resource professionals and whether these workers have the proper skill sets to do objective, science-based conservation planning. Conservation biology and environmental studies majors often do not have a knowledge base to add any practical substance to technical solutions. Although there are thousands of interdisciplinary environmental programs at colleges and universities, there is evidence that the numbers of graduate students in the conservation resource fields is declining. Thomas Friedman, 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, 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, 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 think they are at odds with this thinking and form a collective consciousness about the big issues that will sustain us all, and the planet itself, for future generations.



▲ Stician Samples (left), son of Cheryl Charles and Bob Samples, was an active participant at the Summit.

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 and have much in common. We all believe in work and/or experience involving the natural world, in the potential, if not the practice, of educational systems, and we 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 believe this lack of cohesion is the greatest challenge participants in the Conservation Learning Summit face.

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.

This document is a condensed version of the original which is posted on the Brandwein Institute website, www.brandwein.org/cls.

ABOUT THE AUTHOR

Cheryl Charles is Senior Director of Communications, Research and Strategic Planning for BITS, The Business and Technology Group for The Financial Services Roundtable. BITS is a non-profit industry consortium of 100 of the largest financial institutions in the United States.

Great-granddaughter 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. For close to 20 years, Cheryl served as National Director of the two most widely used environment education programs in North America for K–12 educators, Project Learning Tree and Project WILD, receiving numerous awards for her leadership. She is the 1998 recipient of the Paul F-Brandwein Award and currently serves as a member of the Advisory Committee to the national Conservation Learning Summit, held near Washington, DC in November of 2005, and will help to guide the Summit's five-year Implementation Plan for a New Conservation Agenda. Cheryl is a member of the World Conservation Union's Commission on Education and Communication and co-chair of the Commission's working group on Education

for Sustainable Development. Cheryl served for 15 years as a member of the Board of Trustees of John Denver's Windstar Foundation.

Cheryl is author, editor and designer of a wide variety of publications including books, articles, educational materials, and monographs. Her most recent book, co-authored with her husband, Bob Samples, is *Coming Home: Community, Creativity and Consciousness* (Personhood Press, 2004). She has been listed for many years in the *Marquis Who's Who in America* and *Who's Who in the West*. She has taught at the elementary, secondary, undergraduate and graduate levels; has given hundreds of public presentations and scores of keynote addresses; and has facilitated a wide variety of civic, business and educational meetings on a range of topics from developing community leadership to improving educational systems.

Cheryl holds a B.A. from the University of Arizona, an M.A. from Arizona State University and a Ph.D. from the University of Washington. She has been married to her husband, Bob Samples, for 32 years. They have one son, Stician Samples, of Brattleboro, Vermont.

PRIORITIES FOR ACTION

The Conservation Learning Summit, held in Sheperdstown, West Virginia, November 4-6, 2005, brought together 80 representatives from government agencies, academia, non-governmental organizations, and business to discuss issues of extreme relevance to the future of conservation. The Summit provided a forum for the launching of ideas among many divergent groups of people. The agenda was crafted to result in the formulation of priorities for future activities that would revitalize conservation as a career choice and a habit of mind. The priorities set forth were agreed upon by consensus and were committed to by the Summit participants. In addition, individuals made commitments on behalf of themselves and their organizations.

The recommended actions stemming from the Summit provide the attending organizations, as well as other organizations that are struggling with similar issues, a resource for their strategic planning. The action priorities and individual commitments also provide support for larger plans to be picked up by partner organizations and carried further. This report captures a moment in time when people came together in a spirit of cooperation and agreed upon a common set of principles and priority actions. Facilitators from Alchemy graphically captured the conference agenda and activities and provided participants with immediate feedback. The resulting priority actions addressed the two major focus questions for the Summit:

1. How do we get more people into the natural resource/conservation professions?
2. How do we get more people to care about conservation of natural resources?

Participants engaged in large group sessions with major speakers alternating with home-base

breakout groups to establish priorities and commitments for future actions. The final set of breakout groups was organized around the five issues deemed, by consensus, to be the most critical for future activities. Participants selected their work groups based on the issue of most significance to the organizations they represented.



▲ Chris Chopyak and Julie Primozych, Alchemy facilitators, graphically record speakers' remarks.

WORKING GROUP PRIORITIES

Reports from the five working groups presented two or three priority actions that each group committed to implement, working collaboratively with group member organizations.



Alchemy graphic

Group One: Expanding the Dialogue: Inclusiveness and Partnerships

■ Priority Action:

Identify *cultural translators*, people who can influence change to achieve support of



conservation issues and package their stories into products and training tools.

■ **Priority Action:**

Hold a follow-up conference to set criteria and identify cultural translators.

Group Two: Marketing Awareness Campaign

■ **Priority Action:**

Establish a marketing committee made up of representatives of the participating organizations to share and compile messages, survey data, and audiences.

■ **Priority Action:**

Compile messaging statements and a list of core values that all can access.

■ **Priority Action:**

Send cover letter to career counselors with messaging statements and values to help them attract students to conservation-related areas of studies and careers.

Group Three: Articulation of Workforce Supply and Demand

■ **Priority Action:**

Collect data on who is leaving and who is coming into the workforce and on college and university natural resource department enrollments.

■ **Priority Action:**

Communicate with groups serving minorities and universities with large minority populations to insure diversity in the conservation workforce.

■ **Priority Action:**

Prepare a Workforce Development Assessment and a career brochure to describe what one can do with a degree in a conservation-related field of study.

Group Four: Connecting Conservation to Issues of Relevance

■ **Priority Action:**

Focus on the issue of health which is connected to the US Department of

Education's No Child Left Behind legislation that dictates schools prepare wellness plans.

■ **Priority Action:**

Partner with middle schools to help draft policies for wellness plans to insure these plans include student involvement with the out-of-doors.

Group Five: Youth Interaction

■ **Priority Action:**

Go to schools and talk to students about environmental science in order to influence them to enter conservation careers.

■ **Priority Action:**

Involve more youth in the conservation dialogue and bring them to conferences.

■ **Priority Action:**

Use the national Youth in Conservation Summit in 2007 to lay the groundwork for greater youth involvement in conservation issues.

DECADE OF THE ENVIRONMENTAL PROFESSIONAL AND THE TEN BY TEN CHALLENGE



Building on the group commitments, Larry Nielsen, Provost, North Carolina State University, put forth two proposals. The first was for the "Decade of the Environmental Professional." This plan would be organized and implemented to provide understanding, rewards, and definition for natural resource and conservation professionals to make environmental careers more desirable to young people. The plan would be coordinated by a set of conservation professional organizations and overseen by a secretariat with a minimal level of staffing. This oversight board, possibly located at a university, would provide the infrastructure with the support of outside funding. The initiative would involve professional development, professional definition of career choices, electronic media programming, and a series of annual

themes. The primary momentum behind the Decade of the Environmental Professional is that all participating organizations work collaboratively and pool resources so there is a common message and theme to recruitment activities.

The second proposal Dr. Nielsen issued was in the form of a challenge to the Summit participants. In the next ten years, there should be ten times the number of minorities in the conservation professions than currently exists.

Collaboratively, agencies can create recruitment programs and entire new fields of instruction and programming to reach their common goal. New programs, like urban conservation services, that provide programming needed and wanted by minority communities in big cities should be implemented and nurtured. Working together, agencies could provide centrally-managed internship and career-building programs focused on minorities.

Suggested Remedies to Address Conservation Challenges

These suggestions were made by Cheryl Charles in her original framing document and were set forth as motivators for CLS participants.

- 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 preschools throughout the country.
- Try again, with a new approach, to integrate environment education into the mainstream of K–12 schooling.
- Reinvigorate 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 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.
- 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 E. 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.
- Find a way to effectively communicate the importance of all of these issues.
- And, as my husband Bob Samples said more than 30 years ago, "The first classroom is outside. Get into it."

INDIVIDUAL COMMITMENTS

In addition to the group commitments, individual participants made commitments on behalf of themselves as well as their organizations. Alchemy facilitators provided a chart where participants could record their commitments. Following the Summit several additional commitments were made.

Martha Monroe, North American Association for Environmental Education: I invite you all to present your successes at the international NAAEE conference in St. Paul, Oct. 2006. In a follow up email, Martha proposed a pre-conference workshop and a Conservation Education Strand that could be featured at the NAAEE program. ▶



▲ **Iontha Garitt-Wright**
 Kenion Group Diversity Consultants: The Kenion Group will serve as a leader to support organizations with internal and external diversity initiatives.



▶ **Terry Sharik**, Utah State University:
 I commit to doing a survey of college students broadly to determine why they have or have not chosen a degree program in conservation.



▶ **Steve Hulbert**, Hulbert Auto Park and Funmeister Publishing: I will lead and build with others a team to develop a proposal and business plan package to raise resources for the efforts and projects of this Summit.



Alchemy graphic

▶ **Keith Wheeler**, Brandwein Institute Board Member: The Brandwein Institute will convene, catalyze, and communicate the conservation learning partnership over the next five years.



▲ **Bob Stanton**, Retired National Park Service: I will actively support the involvement of our youth and diverse citizens in natural and cultural resources programs.



◀ **David Blockstein**, National Council for Science and the Environment : I will work with others to send a joint letter, focusing on careers in conservation, to the science faculty at both secular and Christian colleges.



◀ **Flip Hagood** (left) and **Dale Penny** (right), Student Conservation Association: SCA will convene a Youth in Conservation Summit in 2007.



◀ **Jeremy Byler**, High School Student: I take this time now to commit myself to the betterment of my fellow human beings and my world to which I owe so much. I hope that many more will join me in this cause, for we together can truly spark revolutionary changes in the perceptions and interactions of the peoples of our world towards conservation as a lifestyle.

NEW INITIATIVES: THE CHILDREN AND NATURE NETWORK

Several new initiatives have come forward since the Conservation Learning Summit. While they were not part of the Summit priority actions, they were put forward as follow-up programs to carry forth the spirit of the Summit.



▲ Richard Louv and Larry Peterson at CLS.

The first initiative plans to establish an international exchange, called the Children and Nature Network (CNatureNet). The network was recently proposed by Richard Louv, author and futurist, who spoke at the CLS on Public Perception and Outreach. Once the network is in effect, all organizations represented at the Summit will be invited to join in the effort to reconnect children with nature.

CNatureNet will provide an international portal for the exchange of information and ideas across a broad spectrum of people who care about the engagement of children with nature, among them: researchers in the emerging field of children and nature; parents, educators, health-care providers; environmental organizations; urban planners and policy makers. The network will promote institutional change, including new and stronger connections between institutions and individuals concerned with issues of children and nature. CNatureNet will be the resource for sharing news, including strategic initiatives and success stories. It will also offer a continually updated catalog of programs and publications around the world. CNatureNet will be, in short, a one-stop shop for information on how to connect current and future generations of children to the natural world.

THE NATIONAL CONSERVATION EDUCATOR AWARD

Another initiative sprung from a Board of Trustees meeting of the Paul F-Brandwein Institute, the primary sponsor of the CLS. In an effort to bring further attention to conservation education efforts, the Trustees agreed to sponsor an awards program to honor an outstanding educator in the field of conservation education. The first National Conservation Educator Award will be given to an elementary school teacher with proven success in field-based conservation teaching and learning. The Award will be presented at the 2007 Brandwein Lecture, a major session at the National Science Teachers Association Annual Conference, in St. Louis, Missouri. A committee is currently reviewing criteria for the award.



▲ Members of the Paul F-Brandwein Institute Board of Trustees: L to R: Keith Wheeler, William Hammond, Alan Sandler, John Padalino, and Marily DeWall. Not pictured: Mary Brandwein, Henry Burger, William Bavosa.

YOUTH IN CONSERVATION SUMMIT

To mark its 50th anniversary, the Student Conservation Association (SCA) and the National Park Service will co-host the first national Youth in Conservation Summit in October 2007. About 500 young people are expected to attend. The goals of the Summit are to:

- Demonstrate and promote the power of young people to conserve America's natural resources.
- Demonstrate the ability of young people to lead conservation in action.

- Demonstrate the critical needs to and benefits of engaging young people in conservation for the health of our natural, cultural and human resources.
- Identify new ways to engage young people in new areas and opportunities for their contributions.
- Demonstrate to young people that there is a pathway ahead in conservation and raise awareness of SCA's national role in bringing young people into the conservation community.

LEGISLATIVE INITIATIVE



James Elder reports that leaders in conservation education and the related fields of environmental, ocean, and sustainability education, many of whom attended the CLS, are working together to advocate for greater federal funding for these fields. With the organizing help of the Campaign for Environmen-

tal Literacy, specific campaigns are underway in 2006 to restore \$16 million of funding for EPA and NOAA environmental literacy grants programs, gain passage of a \$50 million Higher Education Sustainability Act, support the Forest Service's new Environmental Literacy Strategic Plan, and restore education as an allowable use for \$7 million of the \$70 million State Wildlife Grant program.

Over 100 organizations have been participating in one or more of these efforts, including the North American Association for Environmental Education, the National Wildlife Federation, the National Council for Science and the Environment, the National Environmental Education and Training Foundation, the International Association of Fish and Wildlife Agencies, the World Wildlife Fund, the National Audubon Society, the Aldo Leopold Foundation, EarthEcho International, and Foundation for Our Future. Broad participation from additional organizations committed to these fields is not only welcome but essential. For further information, visit www.FundEE.org or contact Jim Elder, 978-526-7768, elder@FundEE.org

"Hands-on experience really makes a difference and can build the future."

Judy Braus ▼



"Unless they have that 'aha' moment, no amount of information is going to get people interested in nature."

Alan Thornhill (right). ▼



PROGRAM AND ACTIVITIES

FRIDAY, NOVEMBER 5, 2005

The Summit began with a welcome reception, followed by dinner where people were seated in their “home bases,” groups of six to eight individuals who would meet together throughout most of the Summit. Emcee Cheryl Charles set the context for the Conservation Learning Summit (CLS) and introduced officials of the

Cheryl Charles served
as Emcee and Group
Moderator for
the CLS.



Paul F-Brandwein Institute, the lead organization sponsoring the Summit. The Brandwein Institute is named for Paul F-Brandwein, a great educator, author, scientist, and humanist who brought together a similar conference dealing with conservation issues 40 years ago. Paul’s widow, Mary Brandwein, partially funds the Institute’s efforts and serves as chairwoman of the Brandwein Institute Board of Trustees. Cheryl stated, “We wouldn’t be here without Mary Brandwein, young at 94 years of age.” Cheryl introduced Chris Chopyak, lead facilitator for Alchemy, a group that specializes in graphic capture of conference activities and results.

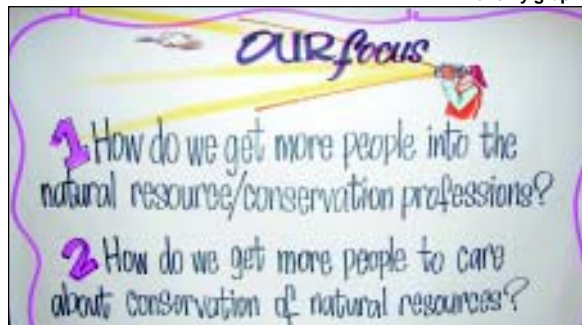
Chris reiterated the two key focus questions for the Summit:

1. How do we get more people into the natural resource/conservation professions?
2. How do we get more people to care about conservation of natural resources?

Cheryl next introduced Rick Lemon, Director of the National Conservation Training Center (NCTC), who described the vision and mission of the center to work with others to insure the future of conservation. Rick pledged the resources of NCTC in working with the CLS.



Alchemy graphic



▲ Representative
Thomas Udall

◀ Rick Lemon, NCTC director,
welcomes participants.

Representative Tom Udall, fourth-term Congressman from New Mexico's third district and son of the honorary Summit chair, Stewart Udall, gave the post-dinner address. He shared family stories of how his father and Uncle Morris were able to achieve bipartisan agreement on major pieces of environmental legislation in Congress. He said that historic spirit of bipartisan effort in conservation has vanished, and spoke of the need to create a climate of trust to allow it to return. Udall stated he thought our nation has lost connections to the natural world. He promised to support the action agenda generated by the Summit and insure that the results are communicated.

"Domestically we can't deal with these issues, but internationally, we can do something. Our task is to figure out how to get back connections to the natural world and follow them back to governmental organizations."

Representative Thomas Udall

Participants then conferred in their home base groups sharing stories of events that put them on paths that eventually led to their attendance at the Summit.



▲ Participants met in home base teams throughout the Summit.

SATURDAY, NOVEMBER 5, 2005

An early morning bird walk began the day for early risers. Breakfast featured an opportunity for younger participants, including students and interns, to pair up with veterans in conservation fields to discuss a wide range of topics including career options.



▲ David Blockstein (center) led early morning risers on a bird walk.

Cheryl Charles led a discussion of the previous night's program. A few participants expressed concern that the government will be broke for the next 20 years (according to Udall's comments) so the government cannot be counted on to fund conservation efforts. Bob Stanton, former director of the National Park Service, rebutted by saying, "Do not subscribe to the notion that the government is broke and cannot be fixed. Voting changes government."

Addressing the first focus question: How do we get more people into the natural resource/conservation professions, a panel session



◀ Robert Stanton, former director, National Park Service

Workforce panel members: Brad Smith, Dan Kugler, and Elizabeth Agpaoa ▼

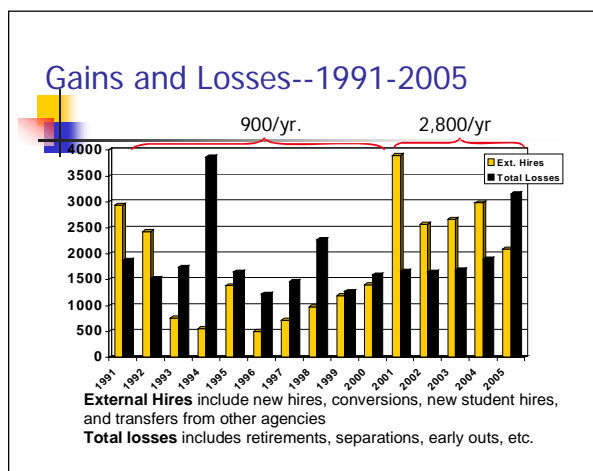


addressed workforce demographics and opportunities based on data and experience. Panel moderator Brad Smith, President of the Council of Environmental Deans and Directors and Dean of Huxley College, Western Washington University, stated, “The changing of guard is imminent. What do we do to retain institutional memory?”

“Anyone who works in the environmental arena has to be an optimist. In the past, we’ve all been guilty of telling prospective students that the future is bleak. Fear is a short term motivator.”

Panel Moderator Brad Smith

Panel member, Elizabeth Agpaoa, Chief of Staff for the USDA Forest Service, spoke of efforts in her agency to “downsize, right size, and realign.” She stated, “Our workforce needs to reflect the public we serve.” In an effort to promote diversity in hiring, the Forest Service has formed alliances with universities with diverse student populations, e.g., Alabama A&M, to develop a School of Forestry. She believes that knowledge and love of science attracts students to careers in conservation. Recruiting efforts should start at the high school level. The graph below indicates the employee gains and losses for the USDA Forest Service, 1991–2005.



USDA Forest Service

Dan Kugler, Deputy Administrator for the USDA Cooperative State Research, Education and Extension Service (CSREES), reflected on



Alchemy graphic

data from the *Employment Opportunities for College Graduates in the US Food Agricultural, and Natural Resources System, 2005-2010*. CSREES is the federal partner for agriculture and natural resources with over 100 land grant universities and colleges. The partnership includes 18 historically black institutions and 33 Native American institutions. The recently published



▲ Participants viewed work of breakout groups.

Employment Opportunities for College Graduates in the US Food, Agriculture and Natural Resources System 2005–2010 (2005) indicates that there are far more opportunities in agricultural and forestry production occupations than there are graduates. A more in-depth draft assessment for the area of conservation shows that there are three to four times the number of graduates with bachelor’s degrees as there are relevant jobs, and that the number of graduates with master’s degrees and Ph.Ds is matched by employment opportunities. (More information about the current supply of graduates for the workforce can be found at www.napfsc.org/html/activities.htm?)



◀ Speaker Richard Louv,
noted author and columnist

There is an increasing employment need for graduates in new skill areas and/or integrated venues. Examples of new skill areas are air quality, global change, and water availability. Integrated science is best exemplified by the rising focus on sustainability where economics, environment, and community are interdependent. CSREES will continue to seek a relevant workforce through the research, education, and extension programs it offers to and through the agricultural and natural resources programs in the land grant university and college system.

Participants then met in their home base breakout groups to discuss the question, “What is limiting our abilities to get more people into natural resource/conservation professions?” Three to four home base groups met in large meeting rooms and shared group discussions in the fashion of a “World Café.” Responses were posted on chart paper and displayed in a gallery where all participants could view and comment on each group’s work.

The afternoon program was launched by author Richard Louv, who presented highlights of his new book, *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder* (Algonquin Books, 2005) on the relationship between children’s mental and physical health and the time they spend outdoors. His comments follow.

“Today, kids are well aware of the global threats to the environment, but their physical contact, their intimacy with nature on a day-to-day basis, is fading. I believe our society is teaching young people to avoid direct experience in nature. That unintended message is delivered by schools, families, even organizations devoted to the outdoors. As the nature deficit grows, new studies demonstrate just how important direct contact with the outdoors is to healthy human development. During the past decade, scientists have begun to study the impact of nearby nature on child development. Environmental psychologists reported in 2003 that nature in or around the home, or simply a room with a view of a natural landscape, helped protect the psychological well-being of the children.

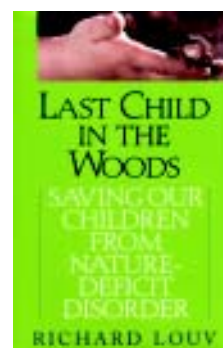
Researchers have found that children with disabilities gain enhanced body image and positive behavior changes through direct interaction with nature. Studies of outdoor-education programs geared toward troubled youth, especially those diagnosed with mental-health problems, show a clear therapeutic value. Some of the most intriguing studies are being done by the Human-Environment Research Laboratory at the University of Illinois, where researchers have discovered that children as young as five showed a significant reduction in the symptoms of Attention Deficit Disorder when they engaged with nature.

People who care about children and the future of the environment need to know about such research, but for the most part, they do not. Today we see dramatic increases in childhood obesity, attention difficulties, and depression. When these issues are discussed, direct childhood experience in nature is seldom mentioned. Yet, the growing nature deficit experienced by today’s children, and potentially for generations to come, may be the most important common denominator.

I am not suggesting that we bring back the free-range childhood of the 1950s. Those days are over. But, with a deeper understanding of the importance of nature play to healthy child

development, and to their sense of connection to the world, we can create safe zones for nature exploration. We can weave nature therapy into our health-care system and nature experiences into our classrooms. In education, we can build a No Child Left Inside movement. And we can challenge environmental organizations to take this issue seriously. For if the disconnection between children and nature continues, who will become the future stewards of the Earth?"

The discussion stimulated by Richard Louv's address centered on the challenge and need to communicate with parents if we want to change a generation. Participants spoke of programs such as "Green Hour," sponsored by the National Wildlife Federation, "Zoomazium,"



ACTIONS TO BRIDGE THE GAP BETWEEN CONSERVATION EDUCATION AND THE PUBLIC

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| <ul style="list-style-type: none"> ■ Connect conservation to human health. ■ Focus on family (education and safety), shared values, and future generations. ■ Use recreational hooks (adventure focus for youth). ■ Focus on gardening—community urban agriculture (food security). ■ Work with developers on neighborhood design. ■ Highlight volunteer opportunities—connections with people. ■ Emphasize consumer issues and how to save money. ■ Involve religion (values and spirituality). ■ Involve community foundations. ■ Promote after school programs (Green Hour) and school-yard habitat programs. ■ Advocate campaign finance reform and voter mobilization. ■ Promote job programs (CCC, AmeriCorps). ■ Create new pre-service and in-service programs. | <ul style="list-style-type: none"> ■ Insure credibility of science so science informs policy. ■ Provide message that the environment is a top security issue. ■ Use natural disasters to get public attention—loss of wetlands. ■ Make it easier to work with conservation community, i.e., lose elitist attitude. ■ Educate current leadership, in agencies and industry, about conservation issues. ■ Link with sustainable communities and homeland security. ■ Increase the dialogue between participating organizations and with those not here. ■ Make conservation newsworthy. ■ Give conservation a local focus with local issues. ■ Tie conservation to individual person's needs. ■ Tie to faith-based and non-faith-based institutions. ■ Promote National Youth and Conservation Summit 2007 as | <ul style="list-style-type: none"> an opportunity to get youth involved. ■ Disseminate copies of the 2004 IAFWA National Conservation Education Summit Report. ■ Make a personal commitment to outreach in social groups. ■ Look at business community for partnerships. ■ Develop a strategic platform that would be acceptable to many conservation organizations. ■ Promote story telling that communicates information understandably. ■ Reinforce the power of constant communication. ■ Use appropriate language, listen, reflect, and understand before acting. ■ Communicate that quality of life is the end game. ■ Look for and align with community change agents. ■ Humanize science and scientists so we can communicate like one of the public. |
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a program that engages kids to build tree houses at Seattle's Woodland Park Zoo, and the Natural Playground movement.

Breakout sessions then focused on the issues that often drive a wedge between conservation education and the public and ways to bridge these gaps. Reports from the groups on priorities for possible action activities were presented in a large group session. Some of the more frequently mentioned priorities included those on the previous page. A reception and dinner followed with informal discussions among participants.

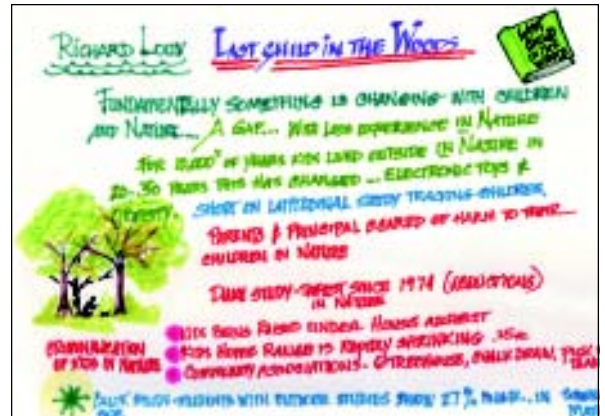
SUNDAY, NOVEMBER 6, 2005

On Sunday morning, participants gathered to select the final groups in which they would meet and agree on one or more priority action items that could be accomplished in the next few years with fellow group members taking responsibility. The groups were designated as follows:

1. Expanding the dialogue: Inclusiveness and partnerships
2. Marketing and awareness
3. Articulation of the workforce supply and demand
4. Connecting conservation to issues of relevance
5. Youth interaction

To serve as inspiration to the groups, Cheryl Charles read a letter written by a high school student participant, Jeremy Byler. Cheryl also introduced all of the young people who were attending the Summit. They are truly our future.

"I firmly believe that the time is through where we can be content with pointing out the problem and passing on the actual work to others; each of us can do something now to make phenomenal and inspirational things happen for conservation as a whole...I take this time now to commit myself to the betterment of my fellow human beings and my world to which I owe so



▲ A page from Bill Hammond's journal.

much. I hope that many more will join me in this cause, for we together can truly spark revolutionary changes in the perceptions and interactions of the peoples of our world towards conservation as a lifestyle."

Jeremy Byler

Keith Wheeler, Brandwein Institute Board member, announced the Brandwein Institute's commitment to convene, catalyze, and communicate the Conservation Learning Partnership over the next five years.

Following the breakout meetings, spokespeople for each group summarized their group's priorities for actions. Briefly stated, they were as follows:



▲ Brandwein Institute Board Member Keith Wheeler commits to the Institute's five years of support.

GROUP ONE: EXPANDING THE DIALOGUE: INCLUSIVENESS AND PARTNERSHIPS

Group members recommended identifying *cultural translators*, people who are respected, trusted and known by both sides of contentious issues, and can influence change to achieve support of conservation issues. Group members will work with translators to collect their stories, motivating beliefs, and models for effectiveness. These stories can be packaged into training courses and guidebooks. Group members will seek funding for a planning conference to define the criteria for cultural translators, resulting products, and training tools.

GROUP TWO: MARKETING AWARENESS CAMPAIGN

Group two reported the need to identify marketing resources in each of the participating organizations for messaging, survey data, and local audiences. Communications must appeal to core values and basic needs, limit fact and figure naming, and focus on hands-on emotional messages that will resonate with the public. A committee of marketing people from participating organizations will compile messaging statements and a list of core values that all can access. A cover letter will be sent to career counselors with these statements and values to help them attract students to conservation-related careers.

GROUP THREE: ARTICULATION OF WORKFORCE SUPPLY AND DEMAND

There is a need to compile data on who is leaving and who is coming into the workforce; for enrollment data in college and university departments dealing with natural resources; and to communicate with minorities to insure diversity in the conservation workforce. Group members will conduct a Workforce Development Assessment to gather data and develop a career brochure to answer what one can do with a degree in a conservation-related field of study. The group will focus on universities with large minority student populations.

GROUP FOUR: CONNECTING CONSERVATION TO ISSUES OF RELEVANCE

The group determined that the issue of health is most relevant and will resonate with most people. Wellness is connected to the US Department of Education's No Child Left Behind legislation that dictates that schools prepare wellness plans. Participating organizations should partner with schools that are doing wellness plans to insure these plans include student involvement with the out-of-doors. The focus should be on developing a relevant program for middle school. Group members will draft policies to help schools develop wellness programs.

GROUP FIVE: YOUTH INTERACTION

The group recommended three action items: (1) Everyone present at the conference should go to a school and volunteer to talk to students about environmental science for a half hour. This will have an exponential impact on influencing students; (2) Involve more youth in the conservation dialogue and bring them to conferences. The young people at this Summit can help identify others who want to be involved; and (3) Use the National Youth Conservation Summit in 2007 to lay the groundwork for greater youth involvement in conservation issues.



▲ Ashley Peterson reports the top action priorities for the Workforce group.

Following the breakout group presentations, Lynn Scarlett, Deputy Secretary of the Department of Interior, presented the final address. She spoke of building conservation linkages with all walks of life, stating that, "Every profession has an environmental connection." She observed that electronics cause de-linking of people geographically as well as de-linking them from nature. But electronics also link in profound ways by providing easy virtual access to the world around us. Passion for conservation springs from connectedness to our surroundings. She stated, "The challenge of the cultural translator is bringing conservation to all walks of life in an interdisciplinary dance."

At the close of the Summit, participants were thanked and given crystal mementos from the Paul F-Brandwein Institute. The Conservation Learning Summit was adjourned with expressions of renewed optimism and commitment to the priorities put forward by the working groups. The Conservation Learning Summit Recommitments to the Future will be announced at a Press Conference in Washington, DC, in April 2006.



▲ Brandwein Institute President Jack Padalino presents Deputy Secretary Lynn Scarlett with a memento of appreciation.



▲ Brandwein Institute Board Member Bill Hammond distributes crystal mementos to CLS participants.



"We need to have heroes in conservation to attract youth. Where are the heroes?"

◀ Philippe Cousteau

"We ought to promote virtuousness when talking about careers in conservation and natural resources. Virtue may be one reason that will speak to many, but not all. Other reasons might be escape, challenge, and adventure."

Mitch Thomashow ▼



FEATURED SPEAKERS*



TOM UDALL is currently serving his fourth term in Congress, representing New Mexico's Third Congressional District. He has led efforts in the House to purchase the pristine Baca Ranch in northern New Mexico for public access and enjoyment, to open a community-based veterans outpatient clinic in Santa Fe, to create a National Historic Trail to honor Native Americans of the Long Walk, to repeal the most egregious sections of the Patriot Act, to designate the Ojito Wilderness Area, and ensure that the No Child Left Behind Act receives adequate federal funding.

Representative Udall serves on the House Resources, Small Business, and Veterans Affairs committees. He is also the Co-Vice Chair of the House Native American Caucus and a member of the Bipartisan Rural Caucus, the Democratic Hispanic Working Group, the Education Task Force, and the Congressional Law Enforcement Caucus, among others.

Tom Udall comes from a family distinguished for its devotion to public service. His family pioneered in the Southwest in the 1800s. His father, Stewart Udall, was elected four times to Congress before being appointed Secretary of the Interior by Presidents Kennedy and Johnson. Tom's Uncle Morris ("Mo") Udall not only served in Congress for 30 years, but also was a major presidential contender in 1976. Representative Mark Udall (D-CO) and Senator Gordon Smith (R-OR) are Tom's cousins and current members of Congress.

*Videos of the featured speakers' addresses are included on the accompanying DVD.



RICHARD LOUV is a futurist and journalist focused on family, nature and community. He is the author of seven books, including, most recently, *Last Child in the Woods: Saving Our Children From Nature-Deficit Disorder* (Algonquin). Among his other books are *Childhood's Future* (Anchor), *The Web of Life*, (Conari), *Fly-Fishing for Sharks: An Angler's Journey Across America* (Simon & Schuster), and *America II* (Houghton Mifflin). He is a columnist for *The San Diego Union-Tribune* and has written for *The New York Times*, *The Washington Post*, *The Christian Science Monitor* and other newspapers and magazines. He also served as a columnist and member of the editorial advisory board for *Parents* magazine, and as a commentator on Monitor Radio.

He is an advisor to the Ford Foundation's Leadership for a Changing World award program and the Scientific Council on the Developing Child, and a Visiting Scholar at the Heller School for Social Policy and Management at Brandeis University. He helped found Connect for Kids, the largest child advocacy site on the World Wide Web.

LYNN SCARLETT is Deputy Secretary at the Department of the Interior. She was sworn in to the post on November 22, 2005. She previously served as Assistant Secretary of Policy, Management, and Budget at the Department. Prior to joining the Bush Administration in July 2001, she was President of the Los Angeles-based Reason Foundation, a nonprofit current



US Dept. of Interior



affairs research and communications organization. For 15 years, she directed Reason Public Policy Institute, the policy research division of the Foundation. Her research focused primarily on environmental, land use, and natural resources issues.

Ms. Scarlett is author of numerous publications on incentive-based environmental policies,

including, most recently, a chapter in *Earth Report 2000* (McGraw-Hill) on “dematerialization.” She co-authored a report, “Race to the Top: State Environmental Innovations,” which examines state environmental programs that utilize incentives, private partnerships, and local leadership in addressing environmental problems.

PANEL MEMBERS



▲ Bradley F. Smith

BRADLEY F. SMITH is Dean of Huxley College of Environmental Studies at Western Washington University. Prior to his appointment as Dean, Dr. Smith served for three years as the first Director of the Office of Environmental Education for the US Environmental Protection Agency and as a Special Assistant to the administrator of the EPA. He serves as a senior advisor to General Motors Corporation and the GM Foundation. He also is an external evaluator for the US Department of Energy and is the President of the US Council of Environmental Deans and Directors and President of the World Conservation Learning Network. He recently co-authored *Environmental Science: A Study of Interrelationships and Environmental Science Field Guide*.



▲ Dan Kugler

DAN KUGLER is Deputy Administrator, Cooperative State, Research, Education, and Extension Service (CSREES), US Department of Agriculture. In this capacity, he provides national leadership to programs and activities that advance knowledge for agriculture, the environment, human health and well-being, and communities. Previously Mr. Kugler served as the acting deputy administrator for economic and community systems with CSREES and was the section leader for processing, engineering, and technology in CSREES's Plant and Animal Systems Unit, where he focused on bio-based products, agricultural engineering, small farms, food safety and science, and farm safety.



▲ Elizabeth Agpaoa

ELIZABETH AGPAOA is Chief of Staff, USDA Forest Service. She has previously served as Forest Supervisor in Cibola National Forest and was part of the planning and corporate information staff and District Ranger at Siskiyou National Forest. Ms. Agpaoa has also served as Environment Specialist for the Pacific Northwest Region and Planning Wildlife Biologist and District Biologist at Willamette National Forest. She has a degree in Wildlife Management from Humboldt State University at Arcata, California.

PARTICIPATING ORGANIZATIONS

The organizations listed below were represented by one or more persons attending the Conservation Learning Summit. Organizations whose representatives served on the planning committee for the Summit are identified with the CLS logo.

ALCHEMY

2546 15th Street
Denver, CO 80211

<http://www.link2alchemy.com>

Alchemy provides facilitation services to a number of public and private sector organizations seeking to clarify and redefine their goals. The company specializes in strategic processes and graphic capture that lead to transformations in creativity and innovation.

ALDO LEOPOLD FOUNDATION, INC.

P.O. Box 77
Baraboo, WI 53913

<http://www.aldoleopold.org>

The Foundation's mission and long-term strategy is to protect and share the unique assets that embody and sustain the Leopold legacy, encourage ecological and ethical stewardship of private and public land, and promote an ecological understanding of the land community leading to a land ethic throughout society. As part of its Land Ethic Campaign, the Foundation plans to restore the Leopold shack and farm, inventory and digitize the Leopold archives, and construct the National Aldo Leopold Legacy Center to serve as a hub for the Foundation's outreach and initiatives.

ANTIOCH NEW ENGLAND GRADUATE SCHOOL

40 Avon Street
Keene, NH 03431-3552

<http://www.anei.org>

The School is a community of civic-minded adult learners, practitioners, scholars, and leaders, providing a transformative education by linking the worlds of scholarship and activism, and by fostering the process of lifelong learning. Antioch's CO-SEED (Community-Based Environmental Education) projects seek to connect students, schools, curriculum, and community. Its Center of Tropical Ecology and Conservation works to protect the Central American Rainforest.

ARCHITECTURAL FOUNDATION OF SAN FRANCISCO

130 Sutter Street, Suite 600
San Francisco, CA 94104

<http://www.afsf.org>

The AFSF is a nonprofit educational organization that involves San Francisco elementary and secondary students in a mentored appreciation of architecture, engineering, construction and the design process. The Foundation's mission is to enhance the awareness and appreciation of the architecture and the design process in the local community.

BUREAU OF LAND MANAGEMENT

1849 C Street
Washington, DC 20240

<http://www.blm.gov/education>

The Bureau of Land Management, an agency of the US Department of the Interior, is responsible for managing 261 million acres of public lands and their natural and cultural resources. BLM's mission is to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations, while ensuring multiple use and sustained yield.

CAMPAIGN FOR ENVIRONMENTAL LITERACY

14 Jersey Lane
Manchester, MA 01944

<http://www.fundee.org>

The CEL seeks to empower individuals and organizations to advocate for an increase in the amount of federal funding dedicated to environmental literacy. It worked to reverse budget cuts in EPA's Office of Environmental Education and NOAA's Office of Education and Sustainable Development.



COUNCIL OF ENVIRONMENTAL DEANS AND DIRECTORS

1707 H Street, N.W., Suite 200
Washington, DC 20006

<http://ncseonline.org/CEDD/>

CEDD is an association of institutional representatives who work to improve the quality, stature, and effectiveness of academic environmental programs at US universities and colleges.

DISNEY'S ANIMAL KINGDOM

Walt Disney World
Lake Buena Vista, FL 32830

<http://disneyworld.disney.go.com/wdw/parks/parkLanding?id=AKLandingPage>

The Animal Kingdom, part of Walt Disney World, brims with attractions, shows, the majesty of nature, and fascinating animals that enrich the planet.

EARTHECHO INTERNATIONAL

1050 Connecticut Ave, NW
Washington, DC 20036

www.earthecho.org

EarthEcho International is a nonprofit environmental and conservation organization led by Philippe Cousteau. It promotes efforts to protect marine resources worldwide.

ECOLOGICAL SOCIETY OF AMERICA

1707 H Street, NW
Suite 400
Washington, DC 20006

<http://www.esa.org>



The ESA is a nonpartisan, nonprofit organization of scientists founded in 1915 to: promote ecological science by improving communication among ecologists; raise the public's level of awareness of the importance of ecological science; increase the resources available for the conduct of ecological science; and ensure the appropriate use of ecological science in environmental decision making by enhancing communication between the ecological community and policy-makers.

ECOS SYSTEMS INSTITUTE

1207 Bull Yearling Road
Stanardsville, VA 22973
<http://ecos-systems.org>

ESI offers a wide range of innovative, highly experiential programs for individuals and organizations dedicated to environmental conservation and sustainable development. The Institute also conducts programs through and on behalf of other organizations with the objectives of building strong partnerships, promoting responsible and efficient use of resources, and empowering and supporting as many people as possible.

**ENERGY, MINERALS AND NATURAL RESOURCES
DEPARTMENT, NEW MEXICO**

1220 South St. Francis Drive
Santa Fe, NM 87505
<http://www.emnrd.state.nm.us/emnrd/mining/index.htm>

The mission of the department is to promote the public trust by ensuring the responsible utilization, conservation, reclamation and safeguarding of land and resources affected by mining.

FLORIDA A&M UNIVERSITY

School of Architecture
1936 South MLK Boulevard
Tallahassee, FL 32307
www.famusa.net

The School of Architecture offers a variety of degree options to prospective students at both the undergraduate and graduate levels.

FLORIDA GULF COAST UNIVERSITY

10501 FGCU Boulevard S.
Fort Myers, FL 33965-6565
www.fgcu.edu

FGSU pursues academic excellence, practices and promotes environmental sustainability, embraces diversity, nurtures community partnerships, values public service, encourages civic responsibility, cultivates habits of lifelong learning, and keeps the advancement of knowledge and pursuit of truth as ideals at the heart of the university's purpose.



FOUNDATION FOR OUR FUTURE

Shelburne Farms
1611 Harbor Road
Shelburne, VT 05482
<http://www.ffof.org>

The mission of FFOF is to support new learning, institutional change management, organizational development, research and capacity development for sustainability, utilizing a variety of strategic consultative processes, next generation learning tool development, and leadership development strategies nationally and internationally.



FUNMEISTER PUBLISHING, LLC

9529 Johnson Point Loop NE
Olympia, WA 98516
www.stevehulbert.org

Funmeister is a multi-media company run by Steve Hulbert who is active in the field of environmental sustainability. He has served on the President's Council on Sustainable Development Education Task Force; the US EPA Environmental Education Advisory Council; the Global Rivers Environmental Education Network, and on the White House Forum, "Education about the Environment" Steering Committee. Funmeister produced the CLS DVD.

THE FUTURES EDGE

<http://www.thefuturesedge.com>

The Futures Edge is the website by and about Richard Louv, noted author and columnist. The website contains his columns and information about his books and appearances.



HAWKSONG ASSOCIATES LLC

2 Encantado Loop
Santa Fe, NM 87508
<http://www.hawksongassociates.com>

This consulting firm was established by the husband and wife team of Bob Samples and Cheryl Charles in the 1970s. Associates provide organizational development, leadership programs, curriculum design, strategic planning, community building and speaker services. Topics of interest include creativity, communications, ecological thinking, whole learning, and sustainability.

HULBERT AUTO PARK

1100 Plum St. SE
Olympia WA 98501
<http://www.stevehulbert.org>

The Auto Park is owned and operated by Steve Hulbert who has been recognized for his contributions in furthering environmental sustainability.

**INTERNATIONAL ASSOCIATION OF FISH
AND WILDLIFE AGENCIES**

444 North Capitol St., NW
Washington, DC 20001
<http://www.iafwa.org>

The IAFWA represents the government agencies responsible for North America's fish and wildlife resources. Its mission is to protect state authority and support provincial and territorial authority for wildlife conservation; promote sound resource management; and strengthen federal, state, provincial, territorial and private cooperation in conserving fish and wildlife and their habitats in the public interest. IAFWA's primary conservation education effort is on the on-going 2004 Conservation Education Summit post work, a top priority of the state fish and wildlife agencies.



**IUCN COMMISSION ON EDUCATION
AND COMMUNICATION**

IUCN USA Multilateral Office
1630 Connecticut Avenue NW, 3rd Floor
Washington DC 20009-1053
<http://www.iucn.org/cec>

The CEC is one of six commissions or formal knowledge

networks comprised of expert volunteers entrusted to develop and advance the institutional knowledge, experience, and objectives of the World Conservation Union. CEC is a global membership network of active, voluntary, professional experts in learning, education, communication, capacity building, and change management.

THE KENIAN GROUP DIVERSITY CONSULTANTS

938 Swan Creek Road #208
Fort Washington, MD 20744
<http://www.keniangroup.com>

The mission of the Kenian Group is to provide training and consultative support to environmental, social justice and public lands organizations and institutions as they work to effectively build, maintain and sustain memberships, constituents, visitors, boards and workforces reflective of America's changing demographics.

LANGBOURNE RUST RESEARCH

96 Round Hill Drive
Briarcliff Manor, NY 10510
<http://langrust.com>

The company helps organizations develop materials for preschoolers, children, and teens. It offers a number of creative support and consulting services and provides custom research and evaluation.

MICHIGAN STATE UNIVERSITY EXTENSION

108 Agriculture Hall
East Lansing, MI 48824-1039
www.msue.msu.edu/portal

Michigan Extension has focused on bringing knowledge-based educational programs to the people of the state. County-based staff members, in concert with on-campus faculty members, serve every county with programming focused on agriculture and natural resources; children, youth and families; and community and economic development.

MINNESOTA DEPARTMENT OF NATURAL RESOURCES

500 Lafayette Road
St. Paul, MN 55155-4040
<http://www.dnr.state.mn.us>

Minnesota DNR's mission is to work with citizens to conserve and manage the state's natural resources, to provide outdoor recreation opportunities, and to provide for commercial uses of natural resources to create a sustainable quality of life.



MORRIS K. UDALL FOUNDATION

130 South Scott Avenue
Tucson, AZ 85701
<http://www.udall.gov/>

The Foundation is committed to educating a new generation of Americans to preserve and protect their national heritage through studies in the environment, Native American health and tribal policy, and effective public policy conflict resolution.



NATIONAL CONSERVATION TRAINING CENTER US FISH AND WILDLIFE SERVICE

698 Conservation Way
Shepherdstown, WV 25443
<http://training.fws.gov>

The National Conservation Training Center trains and educates

natural resource managers to accomplish common goals of conserving fish, wildlife, plants, and their habitats.



NATIONAL COUNCIL FOR SCIENCE AND THE ENVIRONMENT

1707 H Street NW, Suite 200
Washington, DC 20006-3918
<http://ncseonline.org>

NCSE has been working since 1990 to improve the scientific basis for environmental decision making. The Council's approach to science is embodied in the new phrase "sustainability science."

NATIONAL ENVIRONMENTAL EDUCATION AND TRAINING FOUNDATION

1707 H Street, NW, Suite 900
Washington, DC 20006
<http://www.neetf.org>

Chartered by Congress in 1990, the National Environmental Education and Training Foundation is a private non-profit organization dedicated to advancing environmental education in its many forms. Since it was established, the Foundation has become a leader in the development of new policies, grant-making approaches, and direct programming to advance environmental literacy in America.

NATIONAL GEOGRAPHIC SOCIETY

1145 17th Street NW
Washington, D.C. 20036-4688
<http://www.nationalgeographic.com>

National Geographic Society works to combat the alarming lack of geographic knowledge among our nation's young people and the pressing need to protect the planet's natural resources. The Society continues to develop new and exciting vehicles for broadening its reach and enhancing its ability to bring the world to its millions of members.



NATIONAL PARK FOUNDATION

11 Dupont Circle
Washington, D.C. 20036
www.nationalparks.org

The National Park Foundation, chartered by Congress, strengthens the enduring connection between the American people and their National Parks by raising private funds, making strategic grants, creating innovative partnerships, and increasing public awareness. The Foundation works collaboratively with the National Park Service and key partners to support opportunities for all people to connect with their National Parks through personally meaningful experiences. Current and planned activities include trails restoration projects, recycling at work programs, volunteerism innovation programs, and transportation interpreter programs at selected National Parks.

NATIONAL PROJECT FOR EXCELLENCE IN ENVIRONMENTAL EDUCATION

2000 P Street NW, Suite 540
Washington DC 20036
<http://www.naaee.org/pages/npeee/index.html>

The project was initiated by NAAEE in 1993, in an effort to develop an environmentally literate citizenry that can compete in our global economy; has the skills, knowledge, and inclinations to make well-informed choices; and exercises the rights and responsibilities of members of a community.

CONSERVATION LEARNING SUMMIT

Participating Organizations

NATIONAL SCIENCE FOUNDATION

4201 Wilson Boulevard

Arlington, VA 22230

<http://www.nsf.gov>

NSF is an independent federal agency created by Congress in 1950 to promote the progress of science; to advance the national health, prosperity, and welfare; and to secure the national defense. NSF is the funding source for approximately 20 percent of all federally supported basic research conducted by America's colleges and universities. In many fields such as mathematics, computer science and the social sciences, NSF is the major source of federal backing.

NATIONAL SCIENCE TEACHERS ASSOCIATION

1840 Wilson Boulevard

Arlington, VA 22201-3000

<http://nsta.org>

NSTA is the largest organization in the world committed to promoting excellence and innovation in science teaching and learning for all. NSTA's membership of more than 55,000 includes science teachers, science supervisors, administrators, scientists, business and industry representatives, and others involved in and committed to science education. To address subjects of critical interest to science educators, the Association produces professional journals and a variety of publications.

NATIONAL WILDLIFE FEDERATION

11100 Wildlife Center Drive

Reston VA 20190

<http://www.nwf.org>

Founded in 1936 as a nationwide federation of grassroots conservation activists, NWF advances common-sense conservation initiatives through action and education, working hand-in-hand with its affiliates and other like-minded groups and citizen-activists, across the country and around the world. Efforts focus on restoring and protecting wildlife and wild places, along with working to improve the health of the environment.



NATURESERVE

1101 Wilson Boulevard

15th Floor

Arlington, VA 22209

<http://www.natureserve.org>

NatureServe is a non-profit conservation organization that provides the scientific information and tools needed to help guide effective conservation action. NatureServe and its network of natural heritage programs are the leading source for information about rare and endangered species and threatened ecosystems.

NORTH AMERICAN ASSOCIATION FOR ENVIRONMENTAL EDUCATION

2000 P Street NW, Suite 540

Washington DC 20036

www.naaee.org

NAAEE is a network of professionals, students, and volunteers working in the field of environmental education throughout North America and in over 55 countries around the world. Since 1971, the Association has promoted environmental education and supported the work of environmental educators.

NORTH CAROLINA STATE UNIVERSITY

2028H Biltmore Hall, Box 8001

Raleigh, NC 27695

www.ncsu.edu

A land-grant institution and nationally recognized leader in

science and technology with historic strengths in agriculture and engineering, NC State provides a high-quality education in the humanities and social sciences, design, education, life sciences, management, natural resources, physical and mathematical sciences, textiles and veterinary medicine.



PAGET FILMS

333 Auburn - Lower Floor

Buffalo, NY 14213

<http://www.pagetfilms.com>

Paget Films produces a variety of documentary films and has filmed and edited the video for the Conservation Learning Summit.



PAUL F-BRANDWEIN INSTITUTE

P.O. Box 13

Unionville, NY 10988

<http://brandwein.org>

The Institute, established to perpetuate the work of Paul F-Brandwein, is dedicated to the education of future leaders and their recognition of human interdependence with the rest of nature and of human responsibility for maintaining a sanative environment, one that is healthy and healing. The Institute's programs nurture the developing gifts and talents of all learners. It sponsors programs for teachers and various natural resource studies and research. The Brandwein Institute is the primary sponsor of the Conservation Learning Summit.

RENEWABLE NATURAL RESOURCES FOUNDATION

5430 Grosvenor Lane Suite 220

Bethesda, MD 20814

<http://www.rnrf.org>

The RNRF is a consortium of professional, scientific, and educational organizations that advances science and public education in renewable natural resources; promotes the application of sound scientific practices in managing and conserving renewable natural resources; and fosters cooperation among professional, scientific and educational organizations having leadership responsibilities for renewable natural resources.

SCHOOL FOR INTERNATIONAL TRAINING

Kipling Road

Brattleboro, VT 05302

www.sit.edu

The school's mission is to prepare students to be interculturally effective leaders, professionals, and citizens. SIT fosters a worldwide network of individuals and organizations committed to responsible global citizenship and sponsors field-based academic study abroad programs for undergraduates and degree and certificate programs for graduates and professionals.

SHELburne FARMS

1611 Harbor Rd.

Shelburne, VT 05482

<http://www.shelburnefarms.org>

Shelburne Farms is a nonprofit environmental education center and National Historic Landmark on the shores of Lake Champlain. Its mission is to cultivate a conservation ethic. The farm serves as an educational resource by practicing rural land use that is environmentally, economically, and culturally sustainable.

SOCIETY FOR CONSERVATION BIOLOGY

4245 N. Fairfax Drive, Suite 400
Arlington, VA, 22203-1651

<http://www.conbio.org>

The SCB is an international professional organization dedicated to promoting the scientific study of the phenomena that affect the maintenance, loss, and restoration of biological diversity. The Society's membership comprises a wide range of people interested in the conservation and study of biological diversity: resource managers, educators, government and private conservation workers, and students.

SOCIETY FOR RANGE MANAGEMENT

10030 W 27th Avenue
Wheat Ridge, CO 80215-6601

<http://www.rangelands.org>

The SRM is the professional scientific society and conservation organization whose members are concerned with studying, conserving, managing and sustaining the varied resources of the rangelands which comprise nearly half the land in the world. Established in 1948, SRM has over 4,000 members in 48 countries, including many developing nations. SRM's members are land managers, scientists, educators, students, producers, and conservationists, a diverse membership guided by a professional code of ethics and unified by a strong land ethic.

STUDENT CONSERVATION ASSOCIATION

689 River Road
PO Box 550
Charlestown, NH 03603-0550

<http://www.thesca.org>

The SCA provides high school students, college students, and others with meaningful conservation service internships and volunteer opportunities in national parks, forests, and other public lands. Each year, SCA members help to protect vital habitats, threatened wildlife, and other at-risk resources in our nation's parks, forests and urban green spaces. This unique experience instills an ethic of conservation and inspires lifelong stewardship that benefits members, society, and the environment. A major SCA conference is planned for 2007.

TEXAS A&M

WILDLIFE AND FISHERIES SCIENCE

Mailstop 2258
College Station, TX 77843
www.tamu.edu

Texas A&M University is a land-grant, sea-grant and space-grant institution dedicated to the discovery, development, communication, and application of knowledge in a wide range of academic and professional fields.



USDA COOPERATIVE STATE RESEARCH, EDUCATION AND EXTENSION SERVICE

1400 Independence Avenue SW, Stop 2201
Washington, DC 20250-2201

<http://www.csrees.usda.gov>

CSREES' mission is to advance knowledge for agriculture, the environment, human health and well-being, and communities by supporting research, education, and extension programs in the Land-Grant University System and other partner organizations. CSREES doesn't perform actual research, education, and extension but rather helps fund them at the state and local level and provides program leadership in these areas. CSREES and its partners focus on critical issues affecting people's daily lives and the nation's future.



USDA FOREST SERVICE

1400 Independence Ave., SW
Washington, D.C. 20250-0003

<http://www.fs.fed.us>

Established in 1905, the Forest Service is an agency of the US Department of Agriculture. The Forest Service manages public lands in national forests and grasslands.



USDA NATURAL RESOURCES CONSERVATION SERVICE

14th and Independence Avenue, SW
Washington, DC 20250

<http://www.nrcs.usda.gov>

Since 1935, the Natural Resources Conservation Service (originally called the Soil Conservation Service) has provided leadership in a partnership effort to help America's private land owners and managers conserve their soil, water, and other natural resources.



US FISH AND WILDLIFE SERVICE

1849 C Street, NW
Washington, DC 20240

<http://www.fws.gov>

The mission of FWS is to work with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people. Major responsibilities of the FWS include enforcing federal wildlife laws, managing migratory bird populations, restoring nationally significant fisheries, conserving and restoring vital wildlife habitats, and protecting and recovering endangered species.



US NATIONAL PARK SERVICE

1849 C Street, NW
Washington, DC 20240

<http://www.nps.gov>

The National Park Service preserves unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations. The Park Service cooperates with partners to extend the benefits of natural and cultural resource conservation and outdoor recreation throughout this country and the world.

UNIVERSITY OF FLORIDA

SCHOOL OF FOREST RESOURCES AND CONSERVATION

PO Box 110410
Gainesville, FL 32611

<http://www.sfrc.ufl.edu>

Since 1937, the School has been developing and communicating new knowledge for the management and conservation of forest resources in an economically, ecologically, and socially sustainable manner.

UNIVERSITY OF KANSAS

CENTER FOR RESEARCH ON LEARNING

1122 W. Campus Road
Lawrence, KS 66045-3101

<http://www.kucrl.org>

The Center for Research on Learning is an internationally recognized research and development organization noted for creating

solutions that dramatically improve quality of life, learning, and performance, especially for those who experience barriers to success.

**UNIVERSITY OF MICHIGAN SCHOOL OF NATURAL
RESOURCES AND THE ENVIRONMENT
MINORITY ENVIRONMENTAL LEADERSHIP
DEVELOPMENT INITIATIVE**

430 East University
Ann Arbor, MI 48109-1115
<http://www.umich.edu/~meldi>

The Minority Environmental Leadership Development Initiative (MELDI) addresses career and leadership development as an important factor that can enhance the status of minorities in the environmental field. MELDI conducts research on the status of minority environmental professionals and university-level minority students enrolled in environmental programs and hosts conferences, workshops, and other leadership and career development activities.

**UNIVERSITY OF MONTANA
COLLEGE OF FORESTRY AND CONSERVATION**

Missoula, MT 59812
<http://www.forestry.umt.edu>

The College of Forestry and Conservation was founded in 1913, one of the first programs accredited by the Society of American Foresters. The College has earned nationwide respect for the quality of its programs, and it has produced some of the nation's finest natural resource managers.

UNIVERSITY OF VERMONT

Burlington, VT 05405
<http://www.uvm.edu>

The University of Vermont is a small public research university, preeminent in liberal education and the study of the environment and health, and dedicated to providing students with extraordinary opportunities for learning and personal development and to enhancing the cultural, social, and economic life of Vermont, the nation and the world.

**UNIVERSITY OF WISCONSIN
ENVIRONMENTAL RESOURCES CENTER**

1545 Observatory Drive
Madison, WI 53706-1289
<http://www.uwex.edu/erc>

Since its origin in the late 1960s, the ERC has focused on the protection of water quality and soil productivity. Projects included work on inland lakes, watershed management, small-scale waste management, farmland preservation, and waste recycling. As these projects matured and produced useful environmental management information, the Center's scope expanded to include educational support for citizens, professionals and officials.

**UTAH STATE UNIVERSITY
DEPARTMENT OF ENVIRONMENT AND SOCIETY
COLLEGE OF NATURAL RESOURCES**

Logan, UT 84322
<http://www.usu.edu>

The department's vision is to bring people and science together for healthy communities and enduring ecosystems. Its mission is to: (1) promote scholarship and creativity in the discovery, synthesis, and transfer of knowledge relating to the human dimensions of natural resource and environmental management; (2) apply concepts and approaches from social science, humanities, education, and management to better understand

human-environment interactions at a range of spatial scales; and (3) enhance the effectiveness of policies, planning, and administrative processes that affect sustainable development and use of natural resources.

**VIRGINIA POLYTECHNIC INSTITUTE
AND STATE UNIVERSITY
COLLEGE OF NATURAL RESOURCES**

1021 Prince Street
Alexandria, VA 22314
<http://natrespro.nvgt.vt.edu/index.html>

The Virginia Tech College of Natural Resources offers educational programs specifically designed to meet the needs of natural resources professionals and individuals interested in related disciplines. Programs are ideally suited to working professionals who seek credentials for job advancement, individuals considering a career change, and individuals seeking a graduate degree.

**WESTERN WASHINGTON UNIVERSITY
HUXLEY COLLEGE OF ENVIRONMENTAL STUDIES**

516 High Street
Bellingham, WA 98225
<http://www.wvu.edu/depts/huxley/index.html>

Established in 1968, Huxley College is one of the oldest environmental colleges in the nation. Its academic programs reflect a broad view of the physical, biological, social, and cultural world. The College has won national and international recognition due to its comprehensive upper-division and graduate degree programs.

**WOODROW WILSON
NATIONAL FELLOWSHIP FOUNDATION**

P.O. Box 5281
Princeton, NJ 08543
<http://www.woodrow.org>

Founded in 1945, the Woodrow Wilson National Fellowship Foundation is an independent, nonprofit organization dedicated to the encouragement of excellence in education through the identification of critical needs and the development of effective national programs to address them.

WORLD WILDLIFE FUND

1250 Twenty-Fourth Street, N.W.
P.O. Box 97180
Washington, DC 20090-7180
<http://www.worldwildlife.org>

WWF leads international efforts to protect endangered species and their habitats. Now in its fifth decade, WWF works in more than 100 countries around the globe to conserve the diversity of life on earth.

**YALE SCHOOL OF FORESTRY AND
ENVIRONMENTAL STUDIES**

205 Prospect Street
New Haven, CT 06511
<http://www.yale.edu/forestry>

The School prepares new leadership and creates new knowledge to sustain and restore the long-term health of the biosphere and the well-being of its people. Its goal is to provide broad-gauged professional education that equips its graduates to assume influential roles in government, business, nongovernmental organizations, public and international affairs, journalism, research, and education.

FOCUS ON YOUTH

The Conservation Learning Summit was attended by representatives from government, academia, nongovernmental agencies, and business. In addition, there were six young people who were students and interns, as well several young professionals, who actively participated in discussions and reporting. Since one of the Summit's goals was to re-engage the nation's youth in conservation, the input and opinions from these young people were of particular significance to all attendees. The following comments, taken from the CLS evaluation forms, are representative participant reactions.

"One of the best parts of the CLS was the opportunity to engage with young professionals and learn better how the world is for them."

"Having young people participating actively at the conference was great. The letter Jeremy wrote was terrific."

"The results of this Summit can carry over to the Youth in Conservation Summit."

Comments by CLS Participants.

On the first morning of the Summit, a "youth mentoring breakfast" took place that included all of the younger CLS participants as well as many veteran conservation specialists who responded to questions and discussed career opportunities. Faculty members and deans of conservation and natural resource departments at several major universities were particularly sought after by the student members for graduate school advice.

One of the five focus groups that brought forth the final CLS recommendations was Youth Interaction. The group, primarily made up of the Summit young people, recommended three action items: (1) Everyone present at the conference

should go to a school and volunteer to talk to students about environmental science for a half hour. This will have an exponential impact on influencing students to pursue conservation careers. (2) Involve more youth in the conservation dialogue and bring them to conferences. The young people at this Summit can help identify others who want to be involved. (3) Use the national Youth in Conservation Summit in 2007 to lay groundwork for greater youth involvement in conservation issues.

At the closing session of the conference, a letter written by Jeremy Byler, a Washington DC high school student, was read to the audience. It expressed his reflections on the Summit and his dream of what the term "conservation" might come to mean. Below is the beginning of Jeremy's letter.

"I have a dream that one day that which is now called 'conservation' will be so much more. I have a dream that one day peoples of all nations, tribes, and tongues will come together for the betterment of our world. The day is coming and is indeed soon where this will come to pass, but this is not without much work and difficult progress. The key hindrance to this dream, I am finding, is that people who currently lead the conservation movement are failing to communicate a clear and uniform message to the spiraling world. Before we can spark and fuel a change in the broad society, we must first achieve a clear and definite focus of a



▲ Jeremy Byler



meaning for the term ‘conservation’ as well as come up with a uniform collaboration, among all conservation fields, of what our purpose is.”

Jeremy Byler

“As suggested in my column, the conservation agencies could solve the problem of scarcity and diversity of a young workforce tomorrow, if a Youth Conservation Corps were attached to each agency. So why not also a design/construction corps of young people helping construct and even design green buildings?”

Richard Louv in an email to Cheryl Charles.

Student Lisa Cashel ► helped with the CLS administration and planning.



Ashley Peterson, Lisa Cashel, and Danny Morris enjoy the outdoor setting. ▼



“All the young who will become conservationists, those who will do originaive work to advance knowledge, attitudes, and skills in conservation, are, or will be, in our schools. This is true also of all our citizens who will be obliged, whatever are their vocations, to become stewards of our small planet. It is reasonable to assume that we are obliged to look to their future by the devices available in schooling and education.”

Paul F-Brandwein from a speech in 1985.

Latonia Payne, Minority ► Environmental Leadership Development Initiative.



Student Stician Samples meets with his home base team. ▼



“Youth today often have an abstract understanding about loss of rain forests and global warming without direct experience with the wonders of nature in their own neighborhoods. We are challenged to increase the numbers and diversity of students who choose to pursue conservation and natural resource professions. Equally important is the need to look anew at the knowledge and skills these future leaders have to acquire to succeed. How do we reinvigorate the flow of people into the conservation profession with the skills and capacity to address conservation issues that are increasingly complex?”

Stewart Udall from the 2005 CLS invitation.

The youth mentoring breakfast provided a forum for advice from conservation veterans. ▼



REFLECTIONS ON THE SUMMIT

Several participants shared their reflections of the Summit in follow-up communications with CLS Planning Committee members. Here are samples of what they wrote.



MARY BRANDWEIN, chairwoman of the Brandwein Board of Trustees and widow of Paul F-Brandwein, wrote, “Paul and I spent our life together demonstrating our commitment to informed and responsible conservation ethics.

He would be pleased we gathered such talent together to continue this important work. Because of our belief in the seriousness of the challenges, the Paul F-Brandwein Institute has pledged to commit the next five years of our Board’s work with this as our highest priority.”



STEVE KELLERT, Yale School of Forestry and Environmental Studies, reflected, “The conference importantly addressed the related issues of a significant decline in interest and involvement in nature

among children and fewer persons pursuing conservation-related careers. Ironically, the conference also considered increasing evidence that suggests children’s contact with nature is a vital and necessary component of healthy maturation and development. Many critical reasons were cited for the decline in children’s contact with

nature including increasing urbanization, declining habitat, sprawl, the growth in media-based and vicarious experience, excessively structured formal schooling, fear of allowing children spontaneous and unsupervised access to the outdoors, fewer active parental and adult role models, and others. Important and creative consideration occurred regarding how to reverse these ominous trends.”



Author and educational consultant, **JOHN TALLMADGE** wrote, “The conference was an exciting gathering of leaders from key sectors in the conservation profession. Government agencies, educators,

writers, scholars, activists, consultants, and professionals from major media and corporations were all represented. These were smart, well-placed folks who live daily with the issues and problems we grappled with. The format was efficient and well-designed to optimize interaction while keeping the atmosphere congenial and relaxed, a perfect environment for networking and creative thought. The keynote speakers helped focus our energies, especially journalist Richard Louv with his concept of ‘nature-deficit disorder’ and sobering book on how the plugged-in generation of youth has lost contact with real life (in every sense of the term!). A general consensus emerged that getting kids of every age outdoors is the single most effective thing we could do and a vital first step.



As a humanist, nature writer, and educator, I was inspired by all the attention given to questions of experience, value, and beauty, especially the focus on transformative encounters with nature in the near-at-hand places that most of us tend to overlook: a backyard thicket, a damp old log in the local park, or a vacant lot where wildflowers are coming back. So many of our best nature writers have affirmed the importance of such unassuming places in their own ecological awakening.

This conference got people talking across sectors: academia to government, environmental activists to capitalist entrepreneurs, writers to scientists. There's a need for much more of this. I think we all left feeling inspired and encouraged, but also wondering about the next steps."



TERRY SHARIK, College of Natural Resources, Utah State University, emailed, "In reflecting on the Summit, I would like to add a personal commitment on my part and that is to foster the development

of conservation as the conservation of natural resources, environment, and people, or, of natural and human systems. In my mind, this captures what I thought was one of the major breakthroughs in the conference."



Following the CLS, **DALE PENNY,** Student Conservation Association, wrote on the SCA website (www.sca-inc.org), "How do we engage more young people in conservation? While

stuck in traffic on the way to a conference on this topic, I watched a little girl in her front yard, doing cartwheels in a pile of dried leaves. She was the picture of exuberance, joy, energy.

Many of us who work for conservation are fortunate to have had our own childhood version of doing cartwheels in the leaves. At some level, our sustained work to preserve nature reflects our desire to stay in touch with that very personal experience."



Illustration by Sharron Mallison

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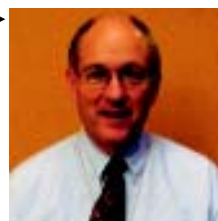
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CONSERVATION LEARNING SUMMIT

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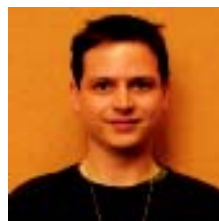
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CONSERVATION LEARNING SUMMIT

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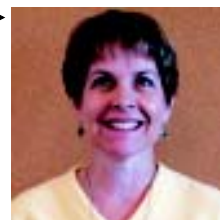


◀ **KEITH WHEELER**
Foundation
for Our Future

DIANE WOOD ▶
National Environmental
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Foundation



DANA YORK ▶
USDA Natural Resources
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Office of the Chief



WHITE PAPERS AND BACKGROUND READINGS

These documents were recommended as advance reading for those attending the Conservation Learning Summit. They may be found online at www.brandwein.org/cls.

- Cheryl Charles: **One Perspective on Framing the Summit's Challenge** (PDF 37 Kb)
- Bruce W. Menzel: **Questions/issues for CLS** (PDF 9 Kb)
- Terry Sharik: **Trends in Undergraduate Enrollments in Natural Resources at NAPFSC Institutions, 1980-2003** (PDF 228 Kb)
- Excerpted from the U.S. Department of Labor Bureau of Labor Statistics 2004 Occupational Outlook Handbook: **Conservation Occupational Outlook** (PDF 104 Kb)
- Extracted from Occupational Information Network (O-NET onLine): **Overviews of Some Conservation Occupations** (PDF 104 Kb)
- Strategic Planning Process for the Virginia Tech Natural Resources Program in the National Capital Region: **Summary of Interviews and Findings at Federal Natural Resources Agencies** (PDF 144 Kb)
- Steven Kellert: **Nature and Childhood Development** (PDF 3.7 MB)
- John Tallmadge: **Urban Nature as a Scene of Instruction** (PDF 107 Kb)
- Larry Peterson: **A Plea for More Wildness in Our Nature** (MS-Word 16 Kb)
- Charles Roth: **Untitled working draft for Paul F-Brandwein lecture series. February 19, 2005** (MS-Word 58 Kb)
- Michael Shellenberger and Ted Nordhaus: **The Death of Environmentalism: Global Warming Politics in a Post-Environmental World** (PDF 521 Kb)
- 60 Minutes: **"The Echo Boomers."** Sept. 4, 2005 (PDF 14 Kb)
- Bill Moyers: **A Question for Journalists: How Do We Cover Penguins and the Politics of Denial?** From the keynote address to the annual convention of the Society of Environmental Journalists, Austin, Texas, Oct. 1, 2005 (PDF 196 Kb)
- Joanna Prukop and Ronald J. Regan: **The Value of the North American Model of Wildlife Conservation, and IAFWA Position,** September 2002 (PDF 28 Kb)
- International Association of Fish and Wildlife Agencies: **An Agenda for Conservation Education in State Fish and Wildlife Agencies. December 9, 2004** (MS-Word 136 Kb)
- International Association of Fish and Wildlife Agencies: **IAFWA's North American Conservation Education Strategy, March 18, 2005** (PDF 24 Kb)
- Renewable Natural Resources Foundation: **Federal Natural Resources Agencies Confront an Aging Workforce and Challenges to Their Future Roles.** (PDF 367 Kb)
- Canadian Council for Human Resources in the Environment Industry: **Expansion, Update, and Maintenance of the National Occupational Standards for Environmental Employment, 2003 Final Report** (PDF 637 Kb)
- Canadian Council for Human Resources in the Environment Industry: **2004 Environmental Labour Market (ELM) Report** (PDF 174 Kb)



PLANNING COMMITTEE ORGANIZATIONS

- PAUL F-BRANDWEIN INSTITUTE
- FOUNDATION FOR OUR FUTURE
- NATIONAL PARK FOUNDATION
- US NATIONAL PARK SERVICE
- USDA FOREST SERVICE
- USDA COOPERATIVE STATE RESEARCH EDUCATION AND
EXTENSION SERVICE
- USDA NATURAL RESOURCE CONSERVATION SERVICE
- US FISH AND WILDLIFE SERVICE
- HAWKSONG ASSOCIATES LLC
- NATURESERVE
- NATIONAL COUNCIL FOR SCIENCE AND THE ENVIRONMENT
- COUNCIL FOR ENVIRONMENTAL DEANS AND DIRECTORS
- NATIONAL CONSERVATION TRAINING CENTER
- WORLD CONSERVATION UNION (IUCN)
- MORRIS K. UDALL FOUNDATION
- FUNMEISTER PUBLISHING
- PAGET FILMS

The DVD contains a highlights video
of the Conservation Learning Summit
and video of the featured speakers.

The DVD was produced by
Steve Hulbert, Funmeister Productions,
for the Paul F-Brandwein Institute.

The DVD was directed, shot, and edited by
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