



The North American Association for Environmental Education

39TH ANNUAL CONFERENCE
September 29-October 2, 2010 ~ Buffalo, New York

Environmental Education: Building Connections, Bridging Gaps

▪ **CONFERENCE STRANDS**

All presentations are categorized by a strand. (Descriptions begin on page 2).

Arts, Culture, and Spirituality
Conservation Education
Energy Education and Green Technology
Innovative Programs and Practices
Network and Leadership Development
Place-based Education
Socio-ecological Justice and Community Engagement
Teaching and Learning Sustainability
Urban and Rural Interface

▪ **THREADS**

Threads are specialized topics that cut across strands.

1. *Business and Industry:* Sessions appropriate for those interested in the roles of business and industry in environmental education
2. *Diversity:* Sessions appropriate for those interested in enhancing/promoting diversity in environmental education
3. *Early Childhood:* Sessions for those interested in developmentally-appropriate environmental education practice, instruction, and programs for preschool and primary aged children
4. *International:* Sessions have an international interest in environmental education
5. *K-12 Formal Education:* Sessions appropriate for classroom teachers and others who teach in formal educational settings
6. *Research and Evaluation:* Sessions includes a research/evaluation component.
7. *Service-Learning:* Sessions appropriate for those interested in learning about the value of and procedures for carefully infusing service-learning pedagogy into EE programs and instruction.
8. *Water:* Sessions include a focus on water or aquatic ecology

Arts, Culture & Spirituality

Strand Leader: Laurie Coventry-Payne, Florida Gulf Coast University (lcoventr "at" fgcu.edu)

Strand Description

The arts are material representations of ideas and emotions; culture represents all that is good and excellent in a people; and spirituality refers to an incorporeal refinement of insight and understanding. This strand seeks to explore how arts, culture and spirituality, broadly defined and inclusive of disciplines such as archaeology, architecture, the visual and performing arts, as well as religion and spirituality, can deepen an understanding and appreciation of the natural environment; mitigate mankind's impact on the environment; promote community awareness and involvement in environmental issues; deepen an understanding of what it means to live sustainability; and ultimately enhance the quality of our civilizations and that of the biotic community of which we are a part.

This Strand's focus includes an interest in:

- **Deepening our understanding** of what we mean by art, culture, and/or spirituality as applied to environmental education
- **Exploring** ways to integrate art, culture and/or spirituality into the broader curriculum of environmental education
- **Encouraging and supporting** innovative and creative programs that use art, culture, and/or spirituality as a means to enhance environmental awareness, environmental literacy, environmental sensitivity, and environmental responsibility
- **Developing** assessment strategies, and supporting research, that provides educators with a measure from which to inform and refine programs that integrate of art, culture, and/or spirituality into the broader curriculum of environmental education
- **Providing a forum** for the sharing of information among environmental educators that integrate art, culture and/or spirituality into their curriculum
- **Inviting participation** by administrators, policy makers, and community leaders in environmental programs that integrate art, culture, and/or spirituality into their curriculum
- **Tapping into the inherent potential** of art, cultural, and spiritual communities to motivate large groups of people to action by aligning the ideals and principles of environmental education to their own
- **Addressing opposition** to the use of art, culture, and/or spirituality in environmental education critically and effectively through sound argumentation
- **Elevating man's understanding** of the natural world and our place within the community of life by advancing the proposition that adherence to the axiomatic principles used by nature to prosper itself has the potential to enrich and prosper the political, economic, and social systems of man
- **Excellence** in environmental education through art, culture, and/or spirituality

Key questions include:

1. What do we mean by art as applied to environmental education?
2. What do we mean by culture as applied to environmental education?
3. What do we mean by spirituality as applied to environmental education?
4. How can we integrate art, culture and/or spirituality into the broader curriculum of environmental education?
5. What are the benefits of integrating art, culture and/or spirituality into the broader curriculum of environmental education?
6. What are the challenges of integrating art, culture and/or spirituality into the broader

curriculum of environmental education and how can these challenges be successfully addressed?

7. What are the implications of not including art, culture, and spirituality into best practices for environmental education?
8. What programs are already in place that integrate art, culture and/or spirituality into environmental education? What are the benefits of modeling these programs elsewhere? Can these programs be replicated by policy makers, community leaders and/or non-governmental organizations elsewhere?
9. What can we do to encourage and support innovative and creative programs that use art, culture, and/or spirituality as a means to enhance environmental awareness, environmental literacy, environmental sensitivity, and environmental responsibility?
10. What assessment strategies are currently in place that provide educators with a measure from which to inform and refine programs that integrate art, culture, and/or spirituality into the broader curriculum of environmental education?
11. What support, financially and otherwise, is available for environmental educators that want to initiate, develop, assess and evaluate the effectiveness of their programs in realizing the objectives of environmental education through art, culture, and/or spirituality?
12. What is the best way to disseminate and share information and ideas among environmental educators, administrators, policy makers and community leaders that integrate art, culture and/or spirituality into their curriculum?
13. What is the best way to invite participation by administrators, policy makers, and community leaders in environmental programs that integrate art, culture, and/or spirituality into the curriculum?
14. What has been done thus far to tap into the inherent potential of art, cultural, and/or spiritual communities to motivate large groups of people to action by aligning the ideals and principles of environmental education to their own? How successful has this been? Can this be modeled by others?
15. Who opposes the concept of using art, culture, and/or spirituality in environmental education? How can these viewpoints be critically and effectively addressed?
16. How can we elevating man's understanding of the natural world and our place within the community of life by advancing the proposition that adherence to the axiomatic principles used by nature to prosper itself has the potential to enrich and prosper the political, economic, and social systems of man?
17. What do we mean by excellence in art, culture, and/or spirituality in environmental education? To what standards, principles and ideals do we aspire?

Conservation Education

Strand Leader: Sandy Perchetti, US Fish & Wildlife Service (sandy_perchetti "at" fws.gov)

Strand Description:

Environmental literacy is often built by sustaining meaningful experiences with the outdoors and natural spaces. Environmental quality is enhanced by a citizenry that is committed to community planning and public involvement. Innovative environmental education, communication, and social marketing engage both students and adults in working with businesses and governments to ensure a community reflects the conservation ethic of its residents who maintain the natural resources of our world. Presentations, posters, and other elements of the Conservation Education Strand address these concepts and bring together the many ways organizations, agencies, businesses and communities can work together to achieve conservation goals through innovative education strategies.

This Strand's focus includes an interest in:

- A broadly inclusive definition of conservation that includes preservation of biodiversity, natural resource management, watershed restoration, land conservation and preservation, and related fields.
- Innovative practices in the field of Conservation Education, including environmental communication and social marketing
- Educational programs that assist the process of reaching conservation goals
- Current research and case studies on behavioral change as related to Conservation Education
- Community-based approaches to Conservation and Education strategies
- Strategies for building capacity for education within the broader practice of Conservation
- Efforts that build bridges between conservation educators and conservation practitioners

Key questions include:

1. What research demonstrates how conservation education contributes to the missions of natural resource management agencies?
2. What research or models demonstrate the effectiveness of Conservation Education in community development initiatives?
3. How can citizen science and other community involved conservation initiatives assist in reaching conservation goals of protected areas?
4. How does conservation education address the needs to change community behaviors that are affecting the success of conservation goals and objectives set by agencies and organizations representing the diverse field of conservation?
5. In what ways can environmental education assist in the development of market-based approaches to address local conservation issues?
6. What research or models illustrate the linkages between environmental education and community involvement in and support of an agency, business or organization's conservation goals?
7. How can the EE community assist in bridging the gap between conservation practitioners and the communities that their work is based in?
8. What research supports the need for public commitment to natural resource conservation, wildlife habitat preservation, and developing a sense of place within a community?
9. What roles do nature centers and other non-formal education organizations play in helping children, classroom teachers and adults develop environmental literacy?

10. What are examples of successful models that address community education, natural history education, and conservation education? How do these models demonstrate collaboration among the conservation and EE fields, governments, business, funding sources, and non-profits to achieve broad community participation?
11. How can the EE community work with businesses to motivate and prepare a future workforce of conservation professionals?
12. What are social marketing and communication techniques that engage communities in natural resource and Smart Growth planning? How do community growth and land use issues impact the visual character and livability of a community?
13. How do natural resource agencies provide balanced information on the consequences of environmental actions?
14. How can organizations use the need for children to develop a personal relationship with the natural world to promote conservation education?

Energy Education and Green Technology

Strand Leader: Terri Tuers, New York State Energy Research and Development Authority (NYSERDA) (at "at" nyserda.org)

Description:

This strand will focus on how environmental education can be integrated into energy education and how using green technology can impact education. Environmental and energy literacy are fundamental to training our next generation. Whether students are preparing to work in the energy field, or training for a public policy, architecture, journalism, or construction career, environmental and energy literacy is critical to their training. This strand will explore creative ways to integrate physical and life sciences as we build an environmental and energy literate society. Attendees will learn how environmental education is being utilized in energy policy initiatives, power generation citing decisions, and as elements of social marketing campaigns. Attendees will also learn about green technologies and green job training.

This Strand's focus includes an interest in:

- "Green" technologies – what are they? How much more do they cost? And how can they be integrated in environmental education programs?
- "Green" workforce development – what's the buzz about and how students can prepare for this workforce.
- Creating a learning laboratory using clean energy and green technologies in building or campus design.
- Environmental education as a catalyst for moving students into clean energy careers.
- Challenges that both environmental and energy education communities face and how they can be resolved.
- Models for student-faculty-staff cooperation in improving energy efficiency at school.
- Energy consumption and energy systems used differ between industrialized and third-world countries.
- Research helpful to community college programs in green job training

Key questions include:

1. How does electricity production and use affect the environment?
2. How heavily should the potential to elicit behavior changes in personal energy consumption weigh into the selection of energy-related curricula?
3. Will the history of the fossil fuel economy suggest a roadmap to a new renewable energy economy?
4. How can energy efficiency be integrated in environmental education to affect behavioral change?
5. How can environmental education be used to shape energy reform; alternative energy research; workforce development; economic and business development?
6. What are the drawbacks to our current electricity transmission system and what are some possible solutions? How will these new approaches impact the environment?
7. How is energy connected to environmental justice issues?
8. Should the study of emerging green technologies be a priority for some student populations above others?
9. The "Green" revolution – what is it and how will we know when it's over?
10. Are there best practices for community colleges to use as they create green job training courses?

Innovative Programs and Practices

Strand Leader: Herb Broda, Ashland University (hbroda "at" ashland.edu)

Strand Description:

A program or practice is considered innovative in the context of this strand if it is unique or relatively new to your geographic area, the population you usually serve, or the type of program you typically offer. We are looking for sessions that showcase groups or organizations that have moved beyond the usual or expected. This strand focuses on the "new". Have you or your organization tried a new approach to an old idea, or have you pioneered a new program, approach or innovation? Have you initiated programs that illustrate the power of partnerships? Even if the concept has been tried elsewhere, if it is new to your area, or encompasses an innovative twist to an existing practice we welcome your proposal. For example, an agency or business that is embarking for the first time on a partnership program that incorporates a novel twist might chose to submit a proposal to this strand. Proposal developers can come from all constituencies: formal, non-formal or free-choice education.

This Strand's focus includes an interest in:

- Innovative programs or practices that fit any age level-- from early childhood through adulthood
- Ways to put a new spin on established procedures, practices and approaches
- Programs or practices that go beyond what would be traditionally expected of the organization or group, or show a new way to approach the traditional

Key questions include:

1. What are innovative ways to foster interdisciplinary learning in environmental education?
2. How can volunteers and exemplary constituents, including business and industry be recognized?
3. How can technology and the arts be incorporated in innovative ways in environmental education?
4. How can staff be utilized in creative ways?
5. What are innovative ways to foster partnerships in the local community and beyond?
6. What are innovative ways to foster environmental education in preK-12 classrooms?
7. What unique problems or barriers had to be overcome in order to launch the innovative program?
8. What processes and procedures were especially effective in implementing the innovation?
9. How does research and evaluation support an innovative practice?
10. What essential tips would you give to others considering the implementation of a similar practice or project?

Network and Leadership Development

Strand Leader: Sue McGuire, Professional Services for Nonprofits (smcguire “at” bresnan.net)

Strand Description:

Many national, state/provincial, and local organizations provide the infrastructure for environmental education. They are crucial for promoting, supporting, and advancing high quality EE programs. Yet these organizations are also challenged with sustaining themselves through fundraising, board/staff development, and membership development. This strand is for those interested in examining strategic approaches to building the capacity of organizations, providing effective leadership both within and outside the EE community, and promoting advocacy for environmental education at local, state/provincial and national levels.

This Strand’s focus includes an interest in:

- Sharing and learning from the experiences of organizations that have implemented tools from the EE capacity-building toolbox: leadership clinics, environmental education summits, the “wheel” of comprehensive EE programs, and organizational assessment tools.
- Developing organizational best practices through capacity-building tools such as strategic plans, business plans, fundraising and communication plans, computer software, web-based tools, and other approaches.
- Learning how NAAEE’s quality assurance initiatives such as the National Project for Excellence, Environmental Educator Certification, and Resource Review can be implemented at the state/provincial and organizational levels.
- Discussing approaches for both traditional and non-traditional advocacy for EE, including coalitions with non-EE organizations.
- Addressing leadership questions such as nurturing new leaders, retaining current leaders, and increasing leadership skills.
- Allowing participants an informal arena for discussions and thoughtful analysis on how the application of some of these tools might work in their region.
- Developing tools to increase organizational strength through planning, fundraising, board and staff development, partnerships, volunteer recruitment and management, membership, and public relations.
- Exploring innovative and sustainable approaches to “green” office, property, and facilities management.

Key questions include:

1. How can we create wider public support for EE?
2. How can we influence policy decisions and legislation that address EE?
3. How do we build partnerships and networks to increase our capacity, reduce duplication of effort, or add new strengths?
4. How can we measure our effectiveness in meeting our mission?
5. How can organizations become strong, effective, sustainable, and transparent to ensure they are able to achieve their mission?
6. How does research and evaluation support leadership and organizational development?
7. What leadership skills are required as organizations grow and change?
8. How do we attract and cultivate future leaders for EE?
9. How can organizations/programs utilize the NPEE Guidelines for Excellence and other quality assurance initiatives in program development, implementation, and evaluation?
10. How are organizations “walking the talk” and reducing their ecological footprint?
11. What are best practices for building strong, effective boards?

12. How can we grow our membership?
13. What are successful techniques for developing strong EE organizations through strategic planning, fundraising, volunteer recruitment and management, and public relations?

Place-based Education

Strand Leader: Scott Feille, REAL School Gardens, Fort Worth, TX (sfeille “at” realschoolgardens.org)

Strand Description:

Place-based education is an approach to teaching and learning that connects learners to community and place. Educators who adopt this approach investigate local culture, natural features and resource issues, economic challenges and opportunities, and community governance. Students are often given the opportunity to participate in work that is valuable for the community at the same time that community members are given the opportunity to share their knowledge and expertise with students. An example of such place-based education might be the implementation of school gardening and habitat restoration projects. When place-based education is well implemented, the boundary between schools and communities becomes permeable, and students and community members benefit from the partnerships they forge.

This Strand’s focus includes an interest in:

- practitioners overcoming challenges to place-based education
- current research about place-based education
- inspiring stories from learners involved with place-based education
- examples of place-based educational approaches that focus on culture
- cultivating and working over the long-term with community partners
- finding resources to support place-based education initiatives

Key questions include:

1. What are the components of place, and how do place-based educators use place to engage people in learning?
2. What professional development opportunities for practicing educators and pre-service teachers result in an increased use of place as a resource?
3. How do insights into human developmental stages inform how educators use place as a resource?
4. How can the work of place-based educators be more explicitly tied to concerns regarding equity and social justice as well as environmental stewardship?
5. What can be done to enlist the support of environmental and social justice organizations in school-based efforts to prepare young people to participate in the shaping of a more sustainable and equitable society?
6. How can we develop enough of a research base to demonstrate the link between the authentic learning experiences offered through place-based education and higher levels of academic achievement?
7. How are early adopters of place-based education creating space and support in their schools and districts for this work?
8. What evidence is being collected to demonstrate the beneficial impact that place-based education is having on local environmental and social conditions?
9. In an educational policy environment in which taking innovations to scale is required to gain attention and funding, how can small and localized initiatives like place-based education gain traction?
10. What could be learned from other teacher-sponsored change efforts like the National Writing Project with regard to the dissemination of the philosophy and practice of place-based education?

11. What could be done to acquaint Latino, Native American, and Black educators with place-based educational approaches and their potential impact on local environmental, economic, cultural, and social conditions?
12. What is the role of place-based education in suburban communities where the experience of place and opportunities for service are often perceived as more limited? The same could be said of urban communities with highly mobile populations.
13. How can the structure of schools be modified to make place-based educational experiences more possible?
14. What resources exist for place-based educators to network and stay informed of current trends, projects, and practices?

Socio-ecological Justice & Community Engagement

Strand Leader: Marcia McKenzie, University of Saskatchewan (marcia.mckenzie "at" usask.ca)

Strand Description:

The Socio-ecological Justice and Community Engagement strand explores the intricate connections among human social and cultural systems and environment and place in a local/global web. Considering environmental issues as embedded within orientations to culture, and as inseparably interwoven with a range of social and global justice concerns, this strand welcomes proposals that examine various facets of cultural and ecological loss and sustainability in relation to education and educational research. In contexts of climate change and global injustice, local food movements, mass migration, shifting orientations to communication and technology, environmental justice, and a range of other factors mediating cultures and places around the globe, this strand investigates how communities, new social movements, and various educational contexts and pedagogies are engaging with socio-ecological learning and change.

This Strand's focus includes an interest in:

- Practitioners engaging in interdisciplinary approaches to socio-ecological justice and community engagement
- Local and/or globally networked communities engaging across social power structures to address equity, ecological issues, and the connections between people and place
- Current research on socio-ecological pedagogies, including in relation to experience, embodiment, cultural responsiveness, place, art, technology, and other public spaces
- Environmental education approaches that focus on culture, identity, class, gender, and 'race,' and that integrate critical pedagogy and social justice concerns
- Relationships of transnational and Indigenous populations to places and socio-ecological justice practices
- Global, national, and regional educational policies and their role in contributing to or remediating cultural colonization and ecological loss
- Modes of collective engagement and socio-ecological activism such as community art projects, new media, cooperatives, community land trusts, intergenerational learning, local food movements, and youth culture
- Similarities and differences among pedagogies and policies which share a concern with socio-ecological justice and community engagement (e.g., variations of EE, ESD, EfS)

Key questions include:

1. What can it mean to engage in socio-ecological pedagogies that are locally responsive to place and culture, and that also engage with global influences such as migration, technology, and issues such as climate change and global injustice?
2. How is environmental education engaged in differently around the globe due to variations in place and culture? When isn't it, and why?
3. How is environmental education engaged in differently in relation to identity and considerations of cultural background, 'race,' class, gender, ableness, and age? When isn't it, and why?
4. Where are the gaps within environmental education practice and research that impede interdisciplinary approaches to addressing socio-ecological issues?
5. What can environmental education learn from practice and research on Indigenous education, new social movements, community based learning, and other related fields?

6. What kinds of environmental education action projects might stimulate further dialogue and action, including across borders and hemispheres?
7. What are the roles of environmental education practitioners and researchers in developing and critiquing educational policy both regionally and globally?
8. How do we understand concepts such as “justice” or “development,” and to what extent, if at all, can our understandings and practices in relation to these terms cross cultural or national borders in ethical ways?

Teaching and Learning Sustainability

Strand Leader: Anthony Kola-Olusanya, Queens University at Kingston (ak76 “at” queensu.ca) and Jonathan Milne, Nature Conservancy (jdmilne “at” tnc.org)

Strand Description:

Sustainability is a paradigm for thinking about the world in which environmental, social, and economic concerns are balanced. Education has a prominent role in creating a more sustainable future. Although the education community does not carry the full responsibility for a more sustainable future, environmental educators and EE organizations need to envision their contributions to transform education to address sustainability. In practical terms, the EE community needs to define and describe an education that prepares children, adolescents, youth, and adults from all sectors of society to work and live in a rapidly changing world. Also, to shape that world to be one in which citizens, business, industry, and government practice environmental stewardship and leave smaller ecological footprints as well as striving for communities that are more socially tolerant, just, and equitable.

This Strand’s focus includes an interest in:

- The role of education in creating a more sustainable future
- Models of teaching and learning sustainability
- What the EE community must do to position itself to meet the challenge of educating for a more sustainable future

Key questions include:

1. What can educators and educational organizations do to partner directly with the surrounding community to make sustainability real?
2. What educational processes are needed to transform current education systems to ones that will help this and the next generation to become involved in sustainability related community-based decision making and policy-making processes on local to national levels?
3. What are considerations in making education programs locally relevant and culturally appropriate so that they address the unique environmental, social, and economic contexts of a place?
4. What do we need to remove from and add to the current curriculum to educate for a more sustainable future?
5. How can education programs be designed to promote teaching and learning for a more sustainable future to honor diverse learning styles, teaching styles, and multicultural audiences?
6. Given that educating for a more sustainable future is a process, how can we, the EE community, better position ourselves to identify our previous and current successes while simultaneously focusing on future goals?
7. How does research and evaluation support teaching and learning sustainability?

Urban & Rural Interface

Strand Leaders: Terry Ippolito, Environmental Protection Agency (ippolito.Teresa "at" epamail.epa.gov) and Susan Cox, USDA Forest Service (smcox "at" fs.fed.us)

Strand Description:

This strand will focus on the similar challenges urban and rural communities face and interactions between them. These communities often have few resources and low socio-economic infrastructure. Over-crowded or under-populated classrooms, staffing shortages, and a limited availability of resources are common. Natural resources often connect rural with urban communities. Some examples are: the Great Lakes community that feeds the hydroelectric power supply of Niagara and Buffalo and the Catskill and Delaware watersheds, located in rural agricultural communities that supply unfiltered water to the largest city in the United States, New York City. Natural resource issues (such as wildlife, forest and water management practices) can also divide these communities.

This Strand's focus includes an interest in:

- The challenges that face both these communities and how to overcome them.
- Environmental justice issues that impact the people in communities, ranging from the native peoples' reservations to schools in the inner cities to rural agricultural areas.
- The challenges of a global economy on nature and its impact on local natural resources and the local economy.
- The challenges of differing social perspectives: when people with urban perspectives impact rural culture and character and people with rural perspectives impact urban culture and character.
- Cultivating long-term community connections that cross geographic and political boundaries.
- Natural resources plans that incorporate entire ecosystems rather than narrow community borders.

Key questions include:

1. What innovative programs promote understanding, respect and connections between urban and rural areas?
2. How can political and/or educational agendas be altered to promote these concepts and practices?
3. How can organizations partner to start these types of connections in their area?
4. How can environmental justice and/or environmental education programs empower urban and rural Latin, African, and Native American organizations to benefit their traditionally underserved communities?
5. What evidence or research is being collected to demonstrate the beneficial impacts on the local environment and social conditions resulting from connecting rural and urban communities?
6. How can making these urban and rural connections help move environmental education into the mainstream of our society?
7. What resources can these communities share that can enable them to improve environmental education?