

## MAEOE 2009 Conference Saturday Presentations

### **Environmental Literacy**

#### Partnership for Children in Nature: Reconnecting Children with Nature Through Formal and Non-Formal Settings

The Partnership for Children in Nature was created by Governor O'Malley in April 2008. The goal of this Partnership is to create a state wide plan that provides students with outdoor opportunities and to develop an environmental literacy plan. Join this discussion panel as we explore ways to integrate this plan into the work you do, provide input and feedback to panel members, and learn about what others are doing throughout the state to get children re-connected with nature.

Elena Takaki, Rebecca Bell          MD DNR and MSDE

### **Developing a sense of community**

#### Outdoor Play in School

Free Outdoor Play is a crucial component of developing children's environmental understanding and interest, yet such play is increasingly limited. Participants will examine school outdoor play in nurturing a sense of place and care for the environment.

Emily Stanley, Mary Rivken          Jemicy School

### **Natural History**

#### How Can We Make Measuring Biodiversity Meaningful in our Schoolyards?

What biodiversity data and tools are needed to make our local environment come alive for our students and communities? We will discuss different types of biodiversity data and methods to collect that data. Then investigate how we could share this data with each other and the larger community.

Karen Kelly Mullin          MAEOE

### **Env. Health and Justice**

#### Get the Inside Stories and Other Environmental Health Resources

Entertain and enlighten your students by bringing environmental health into your classroom! Integrating these FREE online resources into the classroom brings relevance to the curriculum and engages students in critical thinking. Discover and experience innovative materials that help students explore the significant relationship between the environment and human health.

Elissa Hozore          Maryland Public Television

### **Environmental Literacy**

#### What Can YOU Do About Climate Change: The HSBC Climate Partnership Citizen Science

The HSBC Climate Partnership engages business and community members to understand the effects of climate change through hands-on field research and facilitated learning. Our immersion learning model involves citizens in critical ecological research, increasing knowledge required to reduce environmental impacts and facilitate action-based development and implementation of sustainable solutions.

Rebecca Wadler Lase, Dr Dan Stover          Earthwatch Institute

### **Actions to become greener**

#### How We Cut Our Carbon

Rock Terrace School applied for and received a NEEF (National Environmental Education Foundation) grant. Our proposal was to reduce our carbon footprint through academics and vocational training. Even though these students are multiply handicapped adolescents, many of our ideas could be modified to help you reduce your school's carbon emissions.

Marianne M Starr          Rock Terrace School

### **Environmental Literacy**

#### Student Environmental Development Program "Training the Next Generation of Environmental Leaders and Stewards"

Learn and share ideas on establishing and conducting Environmental/Outdoor Education programs in your community. Using EPA's Student Environmental Development Program as a model, the session includes; program ideas, resources, funding, staffing, partnerships, diversity, justice, capacity building, curriculum development, delivery methods, and community participation.

Larry Brown U.S. EPA

### **Environmental Literacy**

#### Make-N-Takes: a. Chea Pet Head, b. Bug Clips, c. Bird Feeders

Keith Williams and North Bay North Bay

### **Gadgets and Gizmos**

#### Student Made Environmental Documentaries

This presentation will consist of 3 parts. First a variety of student made videos will be shown. Each video will be briefly discussed, in relation to context and purpose. Second, materials pertaining to making student films would be shared with the audience. These materials would include outlines, permission forms, usage documents, and curriculum connections. Finally, the audience would be included in a short video being made by students or by themselves.

Brian Shilling Montgomery County Public Schools

### **Env. Health and Justice**

#### On the Air: Exploring Air Pollution Sources and Solutions

Air pollution has serious implications on our health and well being as well as on the environment. Yet little time is spent teaching and addressing the sources and solutions to air pollution. On the Air is a classroom ready interactive curriculum and kit which addresses these issues using a multidisciplinary approach.

Rebecca Davis Metropolitan Washington Council of Governments-Clean Air Partners

### **Environmental Literacy**

#### Creating Green Books

Children's author Mary Quattlebaum gives a lively talk on the book-making process (research, writing, illustrating) for her green themed children's titles and shares related activities for children. Featured titles: Jackson Jones and The Puddle of Thorns and Family Reunion.

Mary Quattlebaum Children's Book Author

### **Environmental Literacy**

#### Global Warming is Hot Stuff

Climate change is an often heard phrase these days, but many people wonder if it really exists. What, exactly, does it mean? Get the scientific scoop through kid-friendly presentation. Engage in hands-on activities and games to predict how global warming induced changed might affect wildlife. Learn what personal actions can reduce climate change.

Elaine Friebele Jug Bay Wetlands Sanctuary

### **Natural History**

#### ECO YOGA: Wetlands

Come join the fun of using yoga to teach about wetlands. No previous yoga experience required, all are welcome regardless of age or level of fitness. Become "part" of a wetlands community and join our web of life.

Phyllis Johnston Every Body Yoga

## **Environmental Literacy**

### Kid Power: Engaging Young Students to Take Action

How can children be empowered to improve their environment? The Primary Talent Development Early Learning Program implemented in ten counties in Maryland supports environmental creative problem solving. Primary students identify a local problem, find solutions, apply for mini-grants to fund and carry out projects. Come away with a toolkit for implementation.

Kathleen Cecil MSDE

## **Actions to become greener**

### The Paper Trail: A Case Study of Solid Waste Reduction at WEB DuBois High School

Students from WEB DuBois High School will discuss what they learned and achieved through their study of "The Paper Trail". The Paper Trail is a four module lesson plan schools may use to satisfy some requirements of the Maryland Green Schools Award Program.

Debra Rossi Lexmark International Inc. with Irvine Nature Center and WEB Dubois High School

## **Developing a sense of community**

### Diversifying Environmental Education: Practical Ways to Reduce Gender and Culture Bias In Modern Environmental Programs

Effective environmental education should reach all students regardless of gender or culture. This presentation will include ways to identify and correct any cultural and/or gender biases that exist in current environmental programs. Educational research findings will be presented to assist teachers in creating environmental science activities that reach across society's boundaries and open their environmental instruction to all students.

Gina Felter Francis Scott Key High School

## **Environmental Literacy**

### Designing and Evaluation of School Based Watershed Science Programs

In this session, participants will learn the steps needed to create an evaluation of a school based, watershed education program. The session will highlight how to set meaningful goals, create an evaluation design, develop survey instruments, and communicate results.

David Christopher National Aquarium in Baltimore

## **Actions to become greener**

### Introduction to PermaCulture

This workshop will introduce permaculture, a method of designing sustainable human habitats by following nature's patterns. Sustainable systems are ecologically sound, socially just, and economically viable. Permaculture offers practical ways to meet basic human needs for food, energy, water, waste recycling, shelter, and social organization without harming the environment.

Karen Stupski School of Living, Heathcote Community, Gaiai University and the Gunpowder Valley Conservancy

## **Natural History**

### Upper Chesapeake Bay History: Demise of Waterfowl Species and Conservation Efforts to Bring Them Back

This session focuses on reasons as to why the waterfowl population has declined over the past hundred years. Through a slideshow presentation, the audience will become familiar with the Upper Chesapeake Bay area, landmarks of the region, and methods of gunning the Susquehanna Flats over the years. Session participants will receive a free hardcover children's book on the history of the Upper Bay and a set of lesson plans and activities for use in the classroom.

Corine M Litzenburg Elk Neck Elementary School

## **Developing a sense of community**

### Green Mapping Your Community

Janet Felsten     Baltimore Green Map

## **Actions to become greener**

### Chesapeake Bay Environmental Center's New Green Education Building- A Case Study for Green New Construction

Learn about the latest "eco-friendly" technologies and products available for home and business owners that can be integrated into existing and new construction buildings. A power point slide show discussion will guide the participants through the fast evolving market of "Green" buildings highlighting LEED certification and low-impact building philosophies practical for the northeast. Participants will be able to see and feel samples of various products now available for greening their upcoming new construction or remodeling project. Update your green vocabulary as you learn concepts in sustainability, low-impact life choices, and carbon footprint. Discover how this greening process can be an educational tool for the community.

Courtney Leigh   CBEC

## **Environmental Literacy**

### Goods From The Woods Conference

The Washington County 4-H Youth Development Program has adapted a program called Goods From the Woods to enrich students learning as they review the parts of a tree, discover products that derive from trees, which parts of the tree produce the products, and develop an appreciation for how trees affect our lives daily. There are more than 5,000 products that we use and depend on everyday that come from trees. The wonderful thing about all these products is that they come from a renewable resource! Trees can be planted and re-grown in an endless cycle so that we can enjoy the many benefits they provide-- clean air, clean water, recreation, wildlife habitat and products--both now and in the future.

Beth Bubatz Nichols     Maryland Cooperative Extension

## **Environmental Literacy**

### Investigating Environmental Issues- When Students Conduct Authentic Research

Have you ever wondered how to use your school's natural surroundings to create student-generated authentic scientific research projects? How about action projects that are germane to their school? We'll show you how and share some of the projects our students produced during our two week summer center.

Jim Prtichard, Chris Burley     Harford Glen EE Center

## **Developing a sense of community**

### Interpreting Nature and Heritage Sites for Visitors

Nature and heritage interpreters from multiple institutions joined together in 2008 to develop an interpreter training program for the Lower Eastern Shore titled Interpreting Nature and Heritage Sites for Visitors. The course can be used as a model for others to develop curriculum, find funding, and provide meaningful training through partnering.

Jim Rapp     Delmarva Low-Impact Tourism Experiences

## **Gadgets and Gizmos**

### Welcome to the Digital Age! Applying for CBT Grants Online

The Chesapeake Bay trust is moving into the Digital Age! Come learn about our new online system and how to apply for a grant. Grant officers will be on hand to answer any and all questions on how to registers and apply for a grant online.

Kacey Barrett, Christine Dunham, Jamie Baxter     CBT

## **Actions to become greener**

### Design, Construction, and Operation of the Irvine Nature Center- Leading the Way in Sustainable Education Facilities

In addition to fulfilling their educational mission, the design, construction, and operation of the Irvine Nature Center in Owings Mills MD demonstrates what "green" buildings are all about. The project strategy included many sustainable features: ground source heat pumps, vegetated roof, waterless urinals, dual flow flush valves, pervious paving, zero stormwater discharge, rain water collection, ventilation energy, recover wheel, waste recycling, and VOC's in the finishes.

Robert E Hedden            US Green Building Council - Baltimore Chapter

## **Gadgets and Gizmos**

### Examining Local Land Use Changes Using Free GIS Software and Data

Demonstration of multiple ways to use the internet and GIS, for free, to visually or quantitatively examine land use changes, from local to US scales. Handouts will include detailed instructions to do this yourself; useful for classroom use, and for environmental centers to relate field studies to the bigger picture.

Martin F Schmidt Jr        McDonogh School

## **Env. Health and Justice**

### Green Building and LEED for Maryland School

Anja Caldwell was part of the national committee of the US Green Building Council that developed LEED for schools and is currently a member of the USGBC's formal education committee. Her presentation will explain the LEED green building rating system and address recent LEED mandates for Maryland schools to certify school buildings. The presentation will also address green curriculum and indoor environmental education opportunities that teach environmental stewardship hands-on.

Anja S. Calwell    Ecoschools US

## **Developing a sense of community**

### Diverse Partners

The Maryland Coastal Bays Program and its dynamic partners have collaborated to effectively engage diverse audiences in a variety of nature exploration and science based programs designed to foster connections and facilitate behavior changes which benefit the environment. Learn more about the partnerships, the programs, and the \$\$ that make it work.

Carrie Samis

## **Natural History**

### Sustaining the Islands of the Chesapeake

The island communities of the middle Chesapeake Bay area are a timeless treasure of unique cultures and peoples. But Mother Nature and human impact are changing the land that has been their home for centuries. As sea level rises, tides are more extreme, and storms are more frequent, the land is disappearing and pushing the inhabitants to higher ground on the mainland. Spend time getting to know island residents who grew up working the waters of the Bay and now educate students and teachers about the ecology of their home areas and how it is changing. Learn how to integrate a personal, human component of the Chesapeake with your classroom lessons. Wes Bradshaw CBF

## **Developing a sense of community**

### Restoring Our Trees Through Service

ROOTS is a new education initiative in which students engage their communities to fulfill the Casey Trees mission to restore, enhance, and protect the tree canopy of Washington DC. Through ROOTS, students will plant trees and become stewards of the urban forest, while achieving academic, civic, and personal/social outcomes

Sue Erdhardt, Christina Escobar    Casey Trees

### **Developing a sense of community**

#### "Children and Nature" Film and Discussion

A showing and discussion of "Children and Nature" (2005) illuminating outdoor setting in Montessori PK-12 schools, accompanied by interviews with poet/philosopher Wendell Berry and designer/researcher Robin Moore explaining the rationale and use of such settings. Participants will be encouraged to develop ideas for their own schools or other child-focused settings.

Emily Stanley, Mary Rivken      Jemicy School

### **Natural History**

#### BirdSleuth: Students Become Citizen Scientists

BirdSleuth is a curriculum guide and resource kit used for studying birds. It includes how-to-use online citizen science tools such as Celebrate Urban Birds, NestWatch, Project FeederWatch, eBird, and Project PigeonWatch where students submit their observations online. Scientists use their data for conservation. Operated by Cornell Lab of Ornithology. Rose MacGregor Ward Museum of Wildfowl Art

### **Environmental Literacy**

#### Going for Green: Is Your School a Maryland Green School

This interactive workshop will introduce Maryland Green School model, provide resource and contacts, and suggest valuable timesaving tips for preparing a successful application. Teachers from recognized green schools will share their experience. Participants will bring the process of identifying and documenting activities that can lead to Maryland Green School recognition.

Carol Thompson, Jeanne Armacost      MAEOE

### **Natural History**

#### Cycles and Circles of Life

Cycles of Nature/ Circles of Life is an American Indian based session connecting our cycles in nature to our circles of life through storytelling and hands-on activities about the environment. These two programs blend very easily into one. American Indian people have been considered the true STEWARDS of the EARTH.

Bonnie Dunn      Patuxent 4-H Center

### **Environmental Literacy**

#### Opinions-- An Environmental Fairy Tale

For thirty five years Echo Hill Outdoor School has been empowering middle school students to explore the age-old controversy of human needs vs. conservation resources. Join us as we demonstrate a tried and true approach to environmental awareness. Creative dramatics, role-play, and lively discussions will highlight this unique experience.

Andrew McCown, Tricia Biles      Echo Hill Outdoor School

### **Developing a sense of community**

#### Paved Paradise? Practical Trips for Exploring Your Not So Natural School Yard

Think it's impossible to take 35 students outside to a paved schoolyard and explore nature? In this exciting outdoor workshop you will learn how to find nature in everyday setting and integrate your school's outdoor settings into your planning.

Julie Gurnee, Sarah Krizek      Audubon Naturalist Society

## **Environmental Literacy**

### Activities for Teaching VSC Middle School Natural Resource Indicators

Address the middle level VSC Natural Resources Standards through interactive classroom activities: compare how different parts of the world have varying amounts and types of natural resources, the need for trade, and the environmental, social and political issues that arise from the uneven distribution of resources. Take classroom activities with you.

Rebecca Bell, LeeAnn Hutchison MSDE

## **Natural History**

### Black Bear/White Tailed Deer Education trunks and Project WILD/Aquatic Wild

Learn more about Maryland's Black Bears and White-tailed Deer with these unique hands-on interdisciplinary teaching tools (K-12) while building on fundamental disciplines like math, art, social studies, science, language arts, and physical education. Project WILD is integrated into these education trunks & can be easily incorporated into existing lesson plans.

Patricia J Allen MD DNR

## **Actions to become greener**

### "Energy Awareness Training: How Can You Have the Greatest Impact on Conservation and Environmental Responsibility?"

Have you ever wondered how much you are directly impacting energy use in the world? In this educational session, Dan Weeden of ENERActive Solutions will provide a background of understanding in Energy Awareness Training. Come learn how to take actions to reduce energy use and benefit both cost and societal impact.

Daniel Weeden ENERActive Solutions LLC

## **Developing a sense of community**

### Organizations doing good and running well

Can an organization do good in the community and still run well? Learn about the initiatives REI is launching to help build community and business. From piloting technology for the U.S. Green Building Council to reaching out to diverse communities, learn what has worked and if it could work for your organization.

Angie Perez, Barbara Ball REI

## **Environmental Literacy**

### The MAEOE Certified Environmental Educator Program

The Maryland Association for Environmental & Outdoor Education is about to launch and brand new Environmental Educator program. The program is aligned with the North American Association for Environmental Education's Guidelines for Excellence, and is suitable for both non-formal and formal educators. Come learn how you can become one of Maryland's first certified environmental educators.

Sarah Haines MAEOE

## **Gadgets and Gizmos**

### Real Science, Real Data, Real Solutions

Join NOAA, National Estuarine Research Reserve Systems, National Geographic, and the Chesapeake Bay Foundation in exploring innovative new curricula and web-based data exploration and mapping tools that engage students in estuarine, watershed and water quality issues. The curricula introduces estuarine concepts in NERR's Estuaries 101 looking at estuaries around the country. The concepts are then localized in Buoy System and NERRS and other mapping data across the watershed. Students as empowered as citizen scientists using the tools to share their field data and engage in meaningful analysis and restoration.

Bart Merrick, Doug Levin DNR, NOAA, CBF, National Geographic

### **Actions to become greener**

#### Partnerships for Tree Planting Projects Conference

This presentation provides the necessary tools for organizing a native tree planting project on school grounds or in the local community and provides guidance on developing essential community partnerships. The opportunity to interact with local agencies that supported the BCPS Forest Buffer Restoration Project will also be provided.

Pat Ghinger     Baltimore County Public Schools

### **Actions to become greener**

#### Habitat for Dummies

Are you interested in creating a wildlife habitat project at your home or school, but don't know where to begin? Learn how to use MAEOE's new web site as a one-stop-shop for creating and utilizing solid habitat projects, as stand alone projects or as stepping stones to becoming a Maryland Green School. Learn how to choose and design a project, find habitat project "how-to's", avoid common obstacles and more!

Julie Dieguez     MAEOE

### **Environmental Literacy**

#### Chesapeake Bay Foundation's Summer Student Leadership Experiences Conference

Call to all middle and high school students! Come meet with CBF's field educators to hear and see what Our Student Leadership watershed immersion summer experiences are all about and why you should get involved. This is your chance to get active and tell us what you want.

Christy Urban     CBF

### **Green Schools Application Review**

Is your school or center working on an application? Got questions? Regardless of how far you are along in the process, consider stopping by for an informal chat with one of the Green School program reviewers. Describe your application plan and get some early feedback weeks before the application submittal deadline. Bring your partially completed application or an overall outline of your accomplishments. MAEOE GS reviewers can share helpful and time-saving tips on writing the one-page summaries, documenting your activities and partnerships, and on how to submit your final application as a PowerPoint program on CD. After attending this session, you will know what your school or center needs to do to earn the recognition.

Carol Thompson, Jeanne Armacost     MAEOE

### **Make n Take**

#### Hand Made Note Cards

Participants will use watercolor and stamping techniques to create handmade note cards with a nature theme.

Kathleen Peterson     BCPS

### **Environmental Literacy**

#### Children's Voices: Science and Solutions Conference

Young people can make a difference. They have the power to change the world. Lynne Cherry is making a movie to give children a voice. In this presentation, Lynne will show the short trailer and then engage the audience in sharing success stories of kids who have reduced their carbon emissions.

Lynne Cherry     independent