

**Environmental Education Advisory Council Newsletter** 

## **Operation Explore**

By Pete Salmansohn and Susan Butterfass Taconic Outdoor Education Center

## "Ooh, it's a big crab." "Wow, look at all those chickens!" "Is that a sugar maple?"

Hunting for crabs, visiting a farm, and tapping trees for sap are the sorts of little delights that many of us enjoyed as children. For many city kids, the opportunities to experience the natural world may be harder to come by. A multi-agency program called Operation Explore, however, has been providing access to these kinds of adventures for thousands of elementary school children from New York City neighborhoods since the mid-1970s.

Major funding for the program comes from the NY State Office of Parks, Recreation and Historic Preservation. The New York City Department of Education supplies in-kind services, some logistical coordination, and a comprehensive training manual, while the New York State Department of Environmental Conservation at their Stony Kill Farm facility in Dutchess County provides agricultural-oriented lessons for the visiting students. Cornell University Cooperative Extension is responsible for enrichment materials within the farm component of the program. The newest cooperator is the New York City Department of Environmental Protection, which provides resources for New York City's water supply and watershed education.

Operation Explore involves a year-long commitment by the teachers. All students and their teachers maintain a nature journal for the school year; in addition, there are some required classroom components such as soil analysis from different habitats, two class trips (one day, one residential) and material to be submitted at the end of the year.

In the fall, at Gateway National Recreation Area in Queens, Brooklyn and Staten Island, National Park Rangers guide their youthful charges along the shoreline and together, they explore an amazing variety of marine life. A major goal of this program is to give urban students an opportunity to both see and experience the habitats and the interrelationships of the urban and rural environments.

A little later in the school year, students head North to spend most of a day at the farm, where the students attend hands-on lessons and activities that include: grinding corn for homemade



johnnycakes; the care and feeding of the farm's resident cattle, pigs, sheep, turkeys and chickens; studies of the effect of erosion and pollution on farmland; and a visit to the greenhouse. Students are left with a greater understanding of the energy involved in getting food to the table, as well as human impact on available resources.

From the farm, the students go directly to the Taconic Outdoor Education Center in Putnam County for two and a half days of outdoor lessons. Operated by the Taconic Park Region, the center is situated within the 20,000+ wooded acres of Clarence Fahnestock Memorial State Park and employs a teaching staff of eight college graduates. Among the many activities that the children participate in are: a night hike without flashlights, pond study, outdoor skills, forest ecology, and a teambuilding challenge course called Project Adventure. Faced with problems such as getting through a tire suspended four feet off the ground or climbing over an eight-foot wall, the students gain much field practice in the arts of communication, cooperation, and compromise. This last experience is enhanced by participation in serving meals to their peers in the dining hall.

By the time the students have experienced the three different components of Operation Explore, they're bubbling with excitement about their discoveries and the outdoors in general. This can be and often is a life-altering experience for them, many of whom have never spent a night away from home, helped set or clear the table, or spent any time at all observing nature. Some typical student comments include: "I think this trip was great – this was the most wonderful trip I have ever experienced", "I never went to a place like this and I want to come here again for the rest of my life", "This is an experience I will never forget!!!"

## EEAC NEWS.....

#### **Steering Committee Meetings**

EEAC Steering Committee members meet on the third Wednesday of every month (except August). Upcoming EEAC Steering Committee meetings are September 16, October 20, and November 17.

Steering Committee meetings are usually held at New York University, Pless Building, 32 Washington Square Park East and Washington Place in the 5th floor Conference Room. Steering Committee meetings are open to anyone interested in learning about environmental education in New York City and sharing information about special programs and projects.

Meetings are also occasionally held at New York City sites associated with our members. Please be sure to contact an EEAC Steering Committee member or visit the EEAC website at www.eeac-nyc.org to confirm meeting location and schedule.

#### Newsletter Deadlines

If you would like to submit an article for the newsletter, please email it as a Microsoft Word attachment to Imiller296@aol.com. The newsletter deadlines are the first Monday in April, July, October and January. We would love your ideas!

#### Newsletter Committee & Contributors

Meg Domroese Kim Estes-Fradis Michelle Fufaro Joy Garland Jane Jackson Regina McCarthy Lenore Miller, Newsletter Editor Betsy Ukeritis Jill Weiss



The Environmental Education Advisory Council (EEAC) would like to acknowledge the support of the New York City Department of Environmental Protection (DEP) for helping

to produce the EEAC newsletter. Visit the DEP website at www.nyc.gov/dep, email educationoffice@dep.nyc.gov or call (718) 595-3506 for information about DEP's education resources for students and teachers.

## **ENVIRONMENTAL EDUCATION ADVISORY COUNCIL**

c/o Teresa Ippolito Environmental Education Coordinator U.S. Environmental Protection Agency, Region 2 290 Broadway, 28th Floor New York. NY 10007-1866 www.eeac-nyc.org

This newsletter is a publication of the Environmental Education Advisory Council (EEAC), a voluntary organization of educators, classroom teachers, administrators and other professionals in active support of quality environmental education.

#### **EEAC Officers**

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\*Affiliations for identification purposes only.

## **GET CONNECTED!** If you are a member of EEAC and want to be part of information sharing and on-line discussion on the EEAC listsery, contact: cfranken@nyc.rr.com

## Acting Chair's Message

Barry Weinbrom

As a member of EEAC for over 25 years and now acting chair of the organization, I am happy to report that our organization is still serving its members in bringing together like-minded passionate environmental educators to learn and share with each other.

I received the email below from Ann Cunningham shortly after our June EEAC meeting:

Dear Barry,

Thank you again for inviting me to present Down to Earth and our other projects (all intertwined) at the EEAC meeting yesterday. It was particularly nice to meet Mike, after talking to him on the phone, and to hear your other guests. I was delighted that Down to Earth meshed so well with Allison Godshall's proposal! I hope to work with Allison and with the Climate Change Scavenger Hunt.

I'll certainly join EEAC, and I'll send Betsy a paragraph about Down to Earth for the newsletter. See you again soon, I hope.

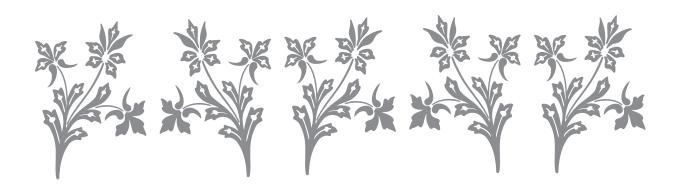
Best wishes, and many thanks again,

Ann Marie

Ann Marie Cunningham Executive Director Science Friday Initiative - the nonprofit partner of Science Friday

The note above highlights why being a member of EEAC is so important and reconfirms the benefit of connecting with others through EEAC meetings and programs. As we teach our students, WE ARE ALL CONNECTED.

EEAC welcomes you and your colleagues to become active in our network and work with us in the new school year to be part of a most exciting time in the Environmental Education Movement.



## **Book Buzz**

#### Guest reviewer: Lenore Miller

Last week, I received my absolutely FREE copy of *Legacy-Conserving New York State's Biodiversity*. This gorgeous publication is a joint effort of the New York State Biodiversity Research Institute, the American Museum of Natural History, the NYS Department of Environmental Conservation, the New York Natural Heritage Program and the Nature Conservancy.

The letter accompanying the book describes its contents in this way: "This 100-page full color book offers a remarkable glimpse into the vast array of life and beauty in New York State. Included are the birds we see at our backyard feeders, giant salamanders that quietly eat crayfish, 'bottomless' lakes, alpine tundra, forests that need fire to survive and much, much more."

For each ecosystem, from beaches, rivers, lakes, and ponds to cities, forests and wetlands, details about the living creatures that inhabit them are provided. In each chapter, the Conservation Challenges that affect each of these habitats are outlined along with ways to meet those challenges to protect the diversity of life.

With a preface by former Governor Pataki, the book is printed on 100% post-consumer recycled paper.

The profuse illustrations throughout the book, with multiples on every page, consist of great photographs and equally beautiful drawings from some of our finest nature artists.... think NY State Conservationist magazine illustrators. The text is highly readable and not too technical so the book is suitable for a wide range of readers.

For your own copy, go to their website at www.nysm.nysed.gov/bri. An electronic version is also available at

http://www.nysm.nysed.gov/bri/publications/legacy.html

## What's Happening in EE? =

Compiled by Betsy Ukeritis

### National Survey Focusing on Air Quality Shows EE Making a Difference

www.peecworks.org/PEEC/PEEC\_Research/S03CB4BC4-03CB558E

A national survey of EE programs focusing on air quality found that almost half resulted in cleaner and healthier air, according to a recently released report funded by the U.S. Environmental Protection Agency's Office of Environmental Education. The study, a collaboration of the EPA, the National Park Service Conservation Study Institute, Shelburne Farms, and a group of environmental researchers, educators, and psychologists, found that of the 54 programs surveyed, 46% reported an improvement in a physical air quality indicator (such as decreased levels of CO2 or mold) or an improvement in a proxy air quality indicator (such as the enactment of a policy that decreased car or bus idling). An additional 43% of the programs surveyed reported taking some kind of action to improve the environment.

#### Do We Have an Environmentally Literate Citizenry?

 $www.ascd.org/publications/publications/educational\_leadership/may09/vol66/num08/The\_Window\_into\_Green.aspx$ 

In this article from Educational Leadership (May 2009) published by the Association for Supervision and Curriculum Development (ASCD), author Mike Weilbacher states the goal of environmental education is to create a citizenry that is knowledgeable about the biophysical environment, aware of ways to help solve environmental problems, and motivated to work toward their solution.

Editor's note: Michael Weilbacher has presented his personal brand of theatrical and dramatic approaches to the teaching of EE at NYSOEA and CEA conferences. His work is insightful, thoughtful and memorable. This is a MUST READ.

# Save the Date! National Association for Interpretation National Workshop, Hartford, CT November 18-21, 2009

#### http://interpnet.com/workshop

The 2009 NAI National Workshop will provide a wealth of information and rejuvenation. The professional development and networking opportunities at every NAI workshop include inspiring and informative keynote speakers, concurrent sessions in 13 different tracks, special events, and offsite sessions that enable you to learn about a unique corner of the country. NAI 2009 will offer the chance to explore the Appalachian Trail, photograph a quaint covered bridge, visit the home of Mark Twain, or stroll one of the maritime villages nearby. The workshop slogan, "Navigating Change, Revolutionizing Interpretation" is an apt one, as our world, our audiences and our economy change at an ever-quickening pace. The NAI workshop will provide you with the tools needed to adjust and adapt to these changes. Join interpreters from around the world to share your experience, interests and ideas.

## Make Earth Day Everyday

by Michelle Fufaro

## Schools: Get Green and Stay Green!

Recently, many schools have been making a big effort to become more environmentally friendly and healthy. This past April, the New York City Department of Education became a member of the Green Schools Alliance, a network of schools that takes action to increase environmental awareness and stewardship and promote energy conservation in schools. This means that city schools will be taking even greater action to reduce energy consumption and increase environmental conservation efforts. Teachers gearing up for yet another school year can follow these tips to make their school or classroom, a greener space:

Create a Green Team that consists of teachers, students, parents and non-teaching staff. If possible, include a member of the facilities team (custodian or custodial engineer). This is the first step in creating goals and generating an action plan.

Identify parts of your school that can be greener. Take it further than recycling.

**<u>Classroom</u>:** Curriculum for all subject areas can include lessons and activities that will improve the school's eco-footprint. Many resources and professional development opportunities are available to support the inclusion of a green theme or spin to your lessons.

**<u>Cafeteria</u>**: School food is eaten by most students, especially in New York City. Giving students healthier, more sustainable options is better for them and the environment.

**Facilities:** Facilities are usually left to the maintenance staff, but teachers and students can get involved too. Work with your custodial engineer to come up with ways to create a greener environment in your school. It is possible to do things such as install a green roof, install solar panels, switch to energy efficient bulbs or use environmentally sound cleaning products.

You and your Green Team should then follow up with an action plan. It's important to set realistic long term and short term goals. Create partnerships to support larger projects, such as a green roof or solar panels that may require experts or extra funding. When creating an action plan, always include evaluation.

Finally, take action and keep it going! Make sure your Green Team has someone in place to ensure all activities, upkeep and "green" efforts are kept alive.

Take the initiative to make your school a greener, healthier environment. You will gain satisfaction and your students will be inspired and empowered to do more to protect the planet.

For more information on getting green in your school, these are just a few of many resources available: The New York State Department of Environmental Conservation: www.dec.ny.gov/chemical/8803.html The Green Schools Initiative: www.greenschools.net

The Cloud Institute for Sustainability Education:www.sustainabilityed.org/what/services\_for\_educators/index.html

#### **EE Resources**

Complied by Betsy Ukeritis

#### How Green is My Town?

#### www.howgreenismytown.org

"How Green is My Town?" is a grassroots effort to empower citizens and local decision makers to address the issues of climate change, sustainability, and environmental health at the local level. The website functions as a national clearinghouse of the best programs, ideas, and policies, as well as product solutions where appropriate.

#### **Ecological Impacts of Climate Change**

#### www.nas.edu/climatechange

Climate change is affecting ecosystems right in your own backyard. This colorful 28-page booklet illustrates examples of ecological changes happening across the United States, explains key scientific concepts and explores the roles and responsibilities of human beings. In addition, Powerpoint presentation modules are available to assist educators in sharing this valuable information.

#### Interpretation by Design (website & book!) www.interpretationbydesign.com

Interpreters use exhibits, brochures, signs, websites, site publications and other visual media to tell their stories. Written for interpreters who have little or no training in graphic design, but find themselves responsible for creating or overseeing the production of these types of "nonpersonal" media, this book focuses on using basic principles of both graphic design and interpretation to improve their products. Interpretation by Design addresses how to make decisions about type, color and composition, as well as why an interpretive approach may be effective for communicating with your audience. The website complements the book with discussions, a blog, an "ask a nerd" section and offers wisdom and humor while answering graphic design questions.

## **Summer Weeding**

A Favorite Pastime of The Horticultural Society of New York

Imagine that you are outside in an urban garden right now. What plants do you see? How did those plants get there? Are there any plants that you don't want there? How did they get there?

#### What is a weed?

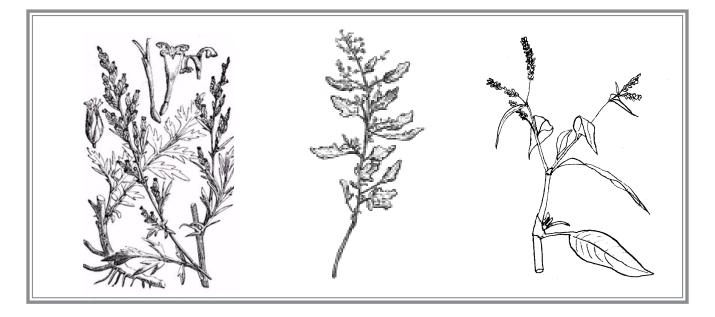
A "weed" can be described as a vigorous, invasive, or self-seeding plant growing where it is unwanted and competing for moisture and nutrients needed by your desired plants. Sometimes a "weed" can be an unexpectedly lovely surprise and most of them are strong enough to survive a few bouts of drought. Some "weeds" like lamb's quarters, dandelions, garlic mustard and purslane are delicious edibles. For those "weeds" that just don't fit into the landscape or your garden plan—get to their roots!

Weeds may be annual or perennial. Annual weeds are easier to pull but have lots of seeds. Their seeds are normally transported via wind, water or get transported by people and animals. These types of weeds include gallinsoga, dodder, knotweed, chickweed, purslane and ragweed. Perennial weeds are usually more aggressive and re-grow from their root systems. Common perennial weeds are clover, plantain, dandelion, wild onions, lamb's quarters and mugwort.

#### Some Weed Pulling Thoughts:

- One of the best ways to track down particular weeds is by observing the soil in your garden and surrounding landscape. Often weeds have traveled to your garden from a nearby vacant lot.
- Wear gloves--some weeds have irritating sap that can make you ITCH!
- Determine how high the temperature reaches in your compost pile before tossing weeds in it. Put weeds with seeds in a black garbage bag to "cook them" in the hot summer sun before composting.

• Pull a few weeds up by their roots and save them for the weed field guide. With children, you might use construction paper and watercolors to design a weed poster. They can include an observed description, a sketch or a print of the weed.





## Civic Service Goes Green: MillionTreesNYC Stewardship Corps

MillionTreesNYC is a public-private partnership between New York City's PlaNYC sustainability initiative, the New York City Department of Parks & Recreation, and New York Restoration Project that establishes the goal of planting and caring for one million new trees throughout the City's five boroughs by 2017.

Since the MillionTreesNYC campaign started in 2007, over 242,000 trees have been planted throughout the City, more than 40,000 just in street trees. In keeping with the mission of heightening civic engagement opportunities throughout the boroughs, MillionTreesNYC is proud to announce the launch of the Stewardship Corps, a citizen-based program channeling the power of volunteerism to urban tree care.

MillionTreesNYC has partnered with Brooklyn Botanic Garden, Greenbelt Conservancy, GreenThumb, Partnerships for Parks, Queens Botanical Garden, New York Botanic Garden and TreesNY to engage everyday New Yorkers in greening their streets by providing:

- Accessible, no-cost tree care and community organizing training
- Coordination and expansion of existing environmental and tree stewardship programs across New York City;
- "Train-the-trainer" workshops to empower MTNYC StewCorps members to educate new tree stewards through their local networks;
- Distribution of tree stewardship toolkits to all participating MTNYC StewCorps members;
- Access to an online resource to locate young trees that need stewardship, network with other green thumbs and share tree care resources, and log service hours.

You can have a leading role in supporting the health and heartiness of street trees by becoming a MillionTrees steward and attending one of our tree care workshops. Several times and locations are available on our community calendar on www.milliontreesnyc.org. You can also contact us at stewards@milliontreesnyc.org or 212-360-3435 if you would like to arrange a workshop in your neighborhood.

## Save the Date–October 24!

Join MillionTreesNYC and more than 2,000 adult and youth volunteers to dig in this fall by planting 20,000 trees throughout the city!



□ New Member □ Renewal	Date:
Name:Address:	Please check the appropriate calendar year membership category:
Apt Zip Code	<ul> <li>\$ 20 Regular</li> <li>\$ 50 Sustaining Organization</li> <li>\$ 200 Individual Life Membership</li> </ul>
Business Phone ( )         Home Phone ( )         Affiliation (for categories other than Sustaining         Organization):         Title/Position:         Address (for categories other than Sustaining Organization):	<ul> <li>Please make checks payable to EEAC.</li> <li>Thank you!</li> <li>EEAC is a 501-(c)3 organization.</li> <li>I would like to become involved in a committee.</li> <li>Please provide me with information about the followin committees:</li> </ul>
E-mail address: lail completed form and check to: y Holmes, Treasurer, EEAC, American Museum of Natural History, 7	<ul> <li>Communications</li> <li>Programs</li> <li>Membership</li> <li>TEEP (Teacher Environmental Education Preparation)</li> <li>9<sup>th</sup> Street and Central Park West, New York, N.Y. 10024</li> </ul>



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