EEAC

Summer 2010

Environmental Education Advisory Council Newsletter

NATURE'S TURN: SCHOOLHOUSE GARDENS

by Judy Isacoff, M.A. www.naturesturn.org

Blue sky and wandering clouds, a morning crescent moon above the crown of an elm, flower fragrance and a shovel-full of black earth reshape body and mind. It is summer; day is longer than night. We are drawn to linger out of doors. It is time to plan and act on having our children grow up in harmony with nature, deeply connected to Earth and cosmos. Nature's Turn / Judy Isacoff designs and conducts environmental education and arts-in-education programs for organizations throughout the region, offering staff development and mentoring as well as classes for all ages and populations.

Nature's Turn focuses awareness on earth and sky, the wild and human-made, in urban, suburban and rural environments. Guided walks as well as hands-on science and art workshops -- e.g. botany, foods, gardening, journaling, pioneer crafts -- are conducted at your site, in your neighborhood, or through field trips we arrange to farms and rural lands very close to New York City. Students are encouraged to experience personal contact with the living world and interact with the architecture of built environments. Earth stewardship and sustainable living are integral to our teaching. Our programs promote inquiry-based, creative science learning, with the goal of nurturing the whole person. Nature's Turn offers indoor versions of most outdoor programs, bringing the enlightenment of direct contact with nature to all audiences.

I have the privilege of being known as "The Nature Lady," "Science Teacher", "Artist", "Writer", "Gardener" to audiences from NYC to Albany, east into Connecticut and Massachusetts, west into New Jersey and at far-flung conferences. For some, I am the individual in their lives who affirms and cultivates the wonder aroused by plants, animals, rocks and stars. During my programs in schools, libraries and environmental centers, I become the vessel to hold the community's nature stories and open the door to exploring and discovering the endless secrets of the world outside our control. Sometimes, creating and caring for a garden (however small) indoors or at the doorstep is a part of teaching environmental stewardship. Promoting recycling (including vermiculture) and experiencing where food and fiber come from, are also parts of the task.

As science consultant to Manhattan Country School's (96th & Fifth Avenue) elementary teachers and their classes since 1996, I have guided a program of nature study through exploring

and journaling in Central and Inwood Parks, learning from and caring for street trees, rooftop gardening and bringing plants and animals from farms to school. In the classroom, we raise monarch butterflies from tiny caterpillars, grow red oak trees from stratified acorns, hatch duck and hen eggs, thresh and grind grain, sprout vegetables. We make models of birds and the solar system and learn botany through dye plants and create beads from invasive trees.

In my personal development, I have come to see a devastating parallel between the culturally instilled attitude that our heads are superior to the rest of our bodies. This rationale places thinking over feeling and insists that humans must control nature both inside and outside of ourselves, resulting in the dominance of nature by humans. Perhaps it is time to re-learn and reconsider what it feels like not to be cut-off and separate from the wisdom of our bodies and the rest of nature.

When I brought a gentle goose to an urban day care center, I observed a two-year-old, her big, brown eyes riveted on this extraordinary creature. She looked at it for an eternity, as if with unquenchable thirst. Another day, in the garden, a toddler, pulling up his first beet with mother's help, fell over backwards

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EEAC NEWS.....

Steering Committee Meetings

EEAC Steering Committee members meet on the third Wednesday of every other month (except August). Upcoming EEAC Steering Committee meetings are September 15 and November 17.

Steering Committee meetings are held at New York University (NYU) and at sites throughout New York City. When we are at NYU, meetings are held in the fifth floor conference room, Pless Building, 32 Washington Square Park East and Washington Place. Meetings are also held at facilities associated with EEAC members. Please visit the EEAC website at www.eeac-nyc.org for meeting location or contact an EEAC Steering Committee member. All 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.

Newsletter Deadlines

If you would like to submit an article for the newsletter, please email it as a Microsoft Word attachment to lmiller296@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 Beach
Joy Garland
Jane Jackson
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Lenore Miller, Newsletter Editor
Betsy Ukeritis

DEP New York City Department of Environmental Protection

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

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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.

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GET CONNECTED!

If you are a member of EEAC and want to be part of information sharing and on-line discussion on the EEAC listserv, contact:

cfranken@nyc.rr.com

Message from the Chair

Summer and Fall are exciting and active times of year for environmental educators. Many of us are scurrying about schools, parks, museums, libraries, community centers, etc. delivering high-quality programs and workshops to folks of all ages. I think you'd agree that we, the environmental education community, are a fortunate group of people who genuinely love our jobs and will work tirelessly to provide engaging and informative programs. But, now more than ever, it is extremely important to reflect on the vital role we play in the fate of our environment.

It is disheartening to think about some of the catastrophic events we are currently facing: the oil disaster in the Gulf Coast, the rise in extreme weather conditions, the ongoing search for adequate alternative energy sources and so many other pressing issues. It is at times like these, that learning about and becoming immersed in nature really can have an impact on our audiences. As environmental educators, we have a commitment to support and strengthen a connection between ourselves and the natural world. The connections we make to nature through the programs we deliver have the capacity to incite change within individuals and entire communities. Action starts with education and we as a society are at the critical point where we need to work together to create a more sustainable environment for the present generation and those yet to come.

Environmental educators have always done and will continue to do work that has wonderful outcomes and success stories. Now it is time for us to go the extra distance and work even harder to get our message out. If people are at a point where they are willing to learn about and protect the natural world, then it is our duty to do whatever it takes to teach them and guide them to become active stewards for our environment. This way, we will actually prevent the next oil spill from happening instead of trying to clean it up.

I wish you all a restful summer and a delightfully busy and inspirational Fall season.

Michelle Fufaro Beach, Chair of EEAC

EEAC Resources:
Deepwater Horizon Oil Spill Edition

Encyclopedia of Earth's page on Deepwater Horizon Oil Spill - This reviewed and approved Encyclopedia of Earth article provides information on the Deepwater Horizon oil spill including background information, the geographic extent, attempts to stop the leak and actions that are being taken to clean up. www.eoearth.org/article/Deepwater_Horizon_oil_spill

Google Earth Perspective on Oil Spill - Move your mouse over any city on Google Maps to see how large an area the Deepwater Horizon oil spill in the Gulf of Mexico is covering. NOTE: Google Earth plug-in required!
http://paulrademacher.com/oilspill/

PBS's WSRE (Pensacola State College) - Children have questions too. WSRE, the PBS TV station on the Gulf Coast, has created a web page of resources to provide parents and teachers with information they can use to help children understand the Gulf of Mexico Oil Spill crisis. www.wsre.org/OilSpill/teachers-students-kids.asp

Ranger Rick's Guide to How to Talk to Kids About the Gulf Oil Spill
www.nwf.org/Kids/Ranger-Rick/Parents-and-Educators/How-To-Talk-With-Kids-Gulf-Oil-Spill.aspx

Gulf Sea Grant's Teacher & Student Resources Site gulfseagrant.tamu.edu/oilspill/teacher-student.htm
Art of Teaching Science Blog post about Oil Spill www.artofteachingscience.org/?p=2738

Florida Dept of Environmental Protection's Deepwater Horizon Spill page www.dep.state.fl.us/deepwaterhorizon/
They have a page for Teachers & Students: www.dep.state.fl.us/deepwaterhorizon/files/teacher_student_resources.pdf

Official Site of the Deepwater Horizon Unified Command (Deepwater Horizon Response)
www.deepwaterhorizonresponse.com

Betsy Ukeritis

Book Review

Beatrix by Jeanette Winter

Frances Foster Books, Farrar, Straus, and Giroux, 2003

Beatrix is the story of one of my favorite people, one who has recently been getting much attention, Beatrix Potter. Recently a movie was made of her life, starring Renee Zellweger as "Miss Potter". This little book focuses on the childhood of the creator of that once popular book, *Peter Rabbit*. Maybe the story is not as popular today as it was in times past, sad to say. Perhaps whimsy is lost on today's children.

Beatrix grew up in a very conservative and controlling household. Her only refuge was her attic rooms with her animals and drawings.The author, Jeanette Winter, gives a simple and well-described window into that sad childhood. Her simple illustrations are engaging. She describes a visit Beatrix made to an art museum with her father, which inspired her to be an artist. Her parents discouraged friendships with other children, so Beatrix made friends with the animals around her. She made her third-floor school room a science and art wonderland. The book features some of the many animals she kept in her room: rabbits, hedgehogs, lizards and mice. Her nanny inspired her sense of whimsy and the fairy world. Many of the animals she kept later became figures in her books. Though not mentioned in the book, which focuses on the childhood of Beatrix, as an adult she enjoyed success as a writer, bought a farm and became a dedicated preservationist in her later years.

The book was enjoyable and I recommend it for young readers ages 5 to 7. It is also worth exploring other writings about or by this interesting character. What has fascinated me about Beatrix is her ability as a naturalist and an illustrator. Her nature drawings were exhibited at the Morgan Library several years ago and they are beautiful. She was a gifted illustrator. Several natural history books of her time used her illustrations. Unfortunately, this is not discussed in the book. When I was a science coordinator, I always used her as an example of a woman scientist. Her expertise was greatest with fungi and lichens. She proposed theories about these and sent them to the British Museum. They were quickly dismissed….she was not formally educated and was a woman! Ironically, some of her theories were found to be true years later.

It would have been better if the author had left out the page about not celebrating Christmas because the Potters were Unitarians. Try explaining Unitarianism to a 6-year-old! Except for this, and the absence of her naturalist studies, I found the book engaging and worth reading to young children, especially young girls. Girls who find themselves interested in the natural world will find they have found a friend in Beatrix Potter.

Further readings on Beatrix Potter for readers of all ages:
Beatrix Potter: A Journal (Penguin Young Readers Group, 2006). (This is really a coffee table book. It contains many facsimiles of Potter's work including the letter she wrote to children, included in the first copy of *Peter Rabbit*.) It might be of interest to upper elementary school students or art students.
Letters to Children from Beatrix Potter by Judy Taylor (Penguin Books USA, 1996). Beatrix Potter: 1866-1943, *The Artist and Her World* by Judy Taylor, Joyce Irene Whalley, Anne Stevenson Hobbs, and Elizabeth M. Battrick (F. Warne and Co. and The National Trust, 1987).

Regina McCarthy

Field Report

GREEN HORIZONS 15 is coming up this fall--
October 14th at Brooklyn Botanic Garden. Please spread the word to middle school colleagues. FREE. For more information, contact Nancy Wolf at jlnwolfinc@aol.com or (718) 834-4589. Brochure will be available in early September.

Staten Island Science Educators Association- SISEA
SISEA has joined NYSOEA as an organization member and will be represented at its 2010 meeting in Buffalo. Visit us on our Facebook page: Staten Island Science Educators Association.

NAAEE/NYSOEA -Come meet an international network of environmental education professionals at the 39th Annual North American Association for Environmental Education Sept. 29 - Oct. 2 in Buffalo, NY.

What's the Buzz about Citizen Science?

Anyone can be a citizen scientist (including non-citizens and people who don't normally think of themselves as scientists!). Citizen science projects can help advance scientific goals by enabling data collection and analysis at scales that would otherwise be impossible. These experiences also allow non-scientists to engage in the scientific process, develop scientific skills and potentially participate in decisions and take action based on the findings.

However, making the connection between scientific and educational goals in a citizen science project isn't always straightforward. Citizen scientists may learn the mechanics of the data collection protocol, but projects must make a concerted effort to link this to broader concepts and context. Additionally, it is essential to consider how citizen science projects can contribute to conservation outcomes, such as improved habitat protection, an increase in population of target species or implementation of measures for improving air or water quality. With growing awareness of environmental problems, there is an urgent need for related data, as well as a need for more widespread understanding of these problems and engagement in conservation.

In the Great Pollinator Project we are looking at how involving volunteers as citizen scientists enhances achievement of science, education and conservation goals. Begun in 2007, the project was prompted by concern about the current status of many pollinators globally and the lack of knowledge about them in New York City. Bees are the most important pollinators in the Northeastern U.S., yet we know little about the more than 200 species that occur in NYC. In order to document bee distribution in NYC and improve habitat for native bees, the American Museum of Natural History's Center for Biodiversity and Conservation joined with the NYC Department of Parks and Recreation's Greenbelt Native Plant Center.

At spring orientation sessions, in each of the city's five boroughs, project scientists introduce basic bee identification and data collection protocol and distribute a variety of native plants, grown by Greenbelt Native Plant Center staff, to be raised in volunteers' gardens or on apartment balconies. To collect the data, volunteer "bee watchers" observe flowering plants for 30 minutes (or until five bees visit), identify arriving bees in one of five major groups, record the flower species on which bees land and enter data online at greatpollinatorproject.org. Bee watchers also collect data in parks, community gardens and any patches of green where they find the project's target plant species in bloom. Eighteen bee-watcher gardens, planted for the project, offer additional locations for observation throughout the five boroughs.

We are surveying participants to find out about their knowledge, motivations and how much time and effort they devote to the project. Based on this assessment, we will develop strategies to move bee watchers from simply carrying out the project data collection protocol to enjoying a deeper knowledge about bee biology and behavior. Ultimately, our aim is to foster an appreciation of pollination as an ecosystem service that relies on healthy habitat components.

So far, some participants have described their routines – even rituals – for observing bees, and reflected on the significance of the quiet, focused time they spend recording bee visits to flowers. They also identified a range of motivations for participating in the project, including concern about bees, connecting with nature and participating in a science project. Many volunteers have expressed interest in ways to build on what they have learned by adding more types of bees to their repertoire, reading about bees and interacting with other bee watchers and with the scientists coordinating the project.

For more information about the Great Pollinator Project, visit greatpollinatorproject.org or email beewatchers@gmail.com. And stay tuned for findings about NYC bees…and the people who watch them!

Want to find out more about citizen science?
Visit citizenscience.org for all kinds of tips and tools, and a catalog of projects.

The Great Pollinator Project is partially funded by the New York City Environmental Fund and by Audubon/Toyota TogetherGreen.

Meg Domroese is Outreach Program Manager at the American Museum of Natural History's Center for Biodiversity and Conservation, and a 2009 TogetherGreen Fellow.

What Bee Watchers are Saying…

"[The project is] a gateway to learning more…it gives me more of an incentive to look further and to take my curiosity more seriously and put it to good use and feel that it's valuable."

"It's interesting to see that there is nature in NYC and how pervasive it is. You never thought of it in all this concrete and streets…but there's quite a lot of activity when you look in detail."

EEAC Activity

Add local resources to your science curriculum… and sneak science into literacy and math lessons.
There are a number of ways to incorporate both of the above. Whether you use one of the many citizen science projects from Cornell Lab of Ornithology, such as http://www.birds.cornell.edu/netcommunity/page.aspx?pid=1671, or you figure it out on your own, the values of place-based and real-world scenarios pay off in student learning. (See the article by Meg Domroese about participating in the Pollinator Project on p.5 of this issue.)

Two other, even more local resources exist that specifically deal with locations around NYC:

The Bronx River Stewards (program of the Bronx River Alliance) has a collection of water quality data from the area around the Bronx River. Teachers may access it to use it to create science and math problems using local data. The data from water quality sampling is collected using GLOBE standards and can be found at http://viz.globe.gov/viz-bin/access.cgi?s=8CVUoWD&l=en&b=g&rg=n&nav=1&enc=00. The Bronx River Alliance also has student work and other data about the river at http://bronxriverdata.org. They even have a curriculum and site guide for the Bronx River called the **The Bronx River Classroom: An Inside Track for Educators** available for download (pdf format) at http://bronxriver.org.

Hudson River Lesson Plans (created by the NYS Department of Environmental Conservation's Hudson River Estuary Program) meet state learning standards and are geared for Grades 3-7. There are a number of lessons for each of the subjects listed below. All of the lesson plans are on line in HTML and PDF format at http://www.dec.ny.gov/education/25386.html.

- **English Language Arts** - This collection of lesson plans facilitates integration of river studies with instruction in English Language Arts.
- **Mathematics** - These lessons use actual data from river research to construct word problems that require math skills for their solution.
- **Science** - These explore physical and life science topics related to the Hudson.
- **Social Studies** - These lessons look at the Hudson Valley's history, geography and economics through the lens of the region's natural resources.

The Hudson is also the subject of a series of web-based high school lessons from Cary Institute of Ecosystem Studies, located at http://www.ecostudies.org/chp.html. In addition, check out the web site **Teaching the Hudson Valley** which has a growing collection of lesson plans focused on the Hudson Valley that cover all subject areas.

Betsy Ukeritis

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clutching the big red prize from the soft, dark garden bed. Every experience is charged with intense concentration, second-by-second reaching for understanding and developing intelligence.

On these summer days, whether working with adults or at a pre-school or high school, in city or country, we feel the urgency to teach from the outdoor environment. If there is a garden plot, volunteers request to dig in the earth or be assigned any other garden task: designing, measuring, rock picking, planting, feeding, watering, bug hunting, fencing, path and sign making, mulching, weeding, pruning, harvesting, tasting, composting.... We are a people starved for contact with the ground, the air, sunlight and water, the elements of the real world. We want an infusion of purposeful yet meandering work, mind and body coordinated. To study and take care of the living world is to be at the edge of infinite treasure. A seven-year-old engaged in a Nature's Turn workshop expressed his sense of wonder in the only way his experience allowed, "This is like the Discovery Channel!" Ah. I smiled and my determined, hard-at-work organism relaxed. The life in my teaching is alive in Julio.

Free NYSERDA Workshops for Educators

Integrate energy education into your lesson plans!

These FREE workshops are open to K-12 teachers, educators in not-for-profit agencies, pre-service teachers, college professors, and other educational professionals. They offer:

*** FREE New York State Education Department-aligned curriculum.**

*** Professional development credit.**

*** Refreshments provided.**

***Please check out the link below to register**

In Manhattan:

August 11-12; "Summer Series" of free solar energy workshops for upper-grade educators (Energy Trilogy for Grades 7-12 on **Wednesday, August 11;** Focus on Solar for Grades 9-12 on **Thursday, August 12;** 8:30 AM -3:30 PM.)

The Solar 1 building is located in the north end of Stuyvesant Cove Park, 23rd Street. The M23 cross-town bus meets most subways and stops across from Solar 1 at E.23rd Street and the FDR Drive.

www.solar1.org.

Register today at www.GetEnergySmart.org. You may also call or email and request a registration form or more information at 1-877-NY-SMART(Option 6) or info@nyess.org.

MEMBERSHIP APPLICATION 2010

❑ New Member ❑ Renewal

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If Sustaining Organization, Name of Contact Person

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Date: _____

Please check the appropriate calendar year membership category:

❑ $ 20 Regular ❑ $ 50 Sustaining Organization

❑ $200 Individual Life Membership

Please make checks payable to EEAC.

Thank you!

EEAC is a 501-(c)3 organization.

I would like to become involved in a committee. Please provide me with information about the following committees:

❑ Communications ❑ Programs ❑ Membership

❑ TEEP (Teacher Environmental Education Preparation)

Mail completed form and check to:

Jay Holmes, Treasurer, EEAC, American Museum of Natural History, 79th Street and Central Park West, New York, NY 10024

ENVIRONMENTAL EDUCATION ADVISORY COUNCIL

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