The Garden of Dreams: Growing the Impact of Environmental Education

A Partnership of The Horticultural Society of New York and PS 57M

Pamela Ito

A catbird nests near a quiet waterfall, an earthworm wriggles beneath a log, and children sit in the shade of a peach tree. This paradise is not a botanic garden or a camp in Bear Mountain—it’s a learning garden in a Manhattan public school courtyard known as the Garden of Dreams. Under the direction of The Horticultural Society of New York, this oasis was designed and installed by PS 57’s third graders in East Harlem. HSNY’s GreenTeam (our work force development program) built all elements of the garden including three 1,200 square foot cast stone planting beds and created a free-form waterfall. Every bit of soil was hauled one wheelbarrow at a time through the school’s hallway and into the central courtyard where the 9-year-old environmentalists then planted and created the habitat.

Today, five years later, the learning garden is home to cherry trees, grape vines, dozens of evergreens, large beds of flowering perennials, healthy herbs and luscious organic vegetables, all of which are maintained and hand-watered by PS 57’s students. We like to think of this garden as an example of how HSNY’s environmental education evolved. No longer abstract or textbook taught, this environmental immersion brings live, dynamic, and accessible aspects of learning “to their own backyard”...a “backyard” where our urban children, living with little or no green space, or with limited opportunities to visit natural areas beyond the city, will gain an understanding of the role they can play in their environment.

The garden is a living laboratory for observing plant life cycles and studying the role of plants in urban cooling, reducing air particulates, and as a habitat for animals. Third graders meet with an HSNY educator once a week for hands-on experiments and garden maintenance. Students develop process and inquiry skills through dissecting flowers, measuring plant growth, writing nature poetry, cooking vegetables, transplanting, making water color paintings, fertilizing, recording weather changes and maintaining their garden.

In addition to the Garden of Dreams, HSNY built an outdoor classroom that serves as a surface for a rainwater system that was installed by GrowNYC and funded by Rodale’s Waterworks Project. The rainwater—a free resource that would otherwise go down the drain—is stored in a 200-gallon cistern. These precious drops of water are transferred into small watering cans and poured at the base of each plant. Taken as a whole, the Garden of Dreams, the outdoor classroom, and the rainwater harvesting project is a comprehensive, sustainable ecosystem rarely found in any public school, let alone one in the middle of East Harlem.

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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 November 17 and January 19, 2011.

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
Regina McCarthy
Lenore Miller, Newsletter Editor
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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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Barry Weinbrom, Vice-Chair for Programs
Terry Ippolito, Membership Secretary
Jay Holmes, Treasurer
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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 listserv, contact:
cfranken@nyc.rr.com

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.
Message from the Chair

Greetings everyone. As the year 2010 ends, I want to thank you for a truly wonderful year. We accomplished many things and are proud of our efforts. Below are just a few highlights from the year:

Our newsletters have been outstanding this year. We had great feature articles on topics such as EPA’s education program, citizen scientists, TEEP, and environmental literacy updates, as well as highlights on Nature’s Turn and Brooklyn Technical High School. In addition to the articles, our newsletter was jam-packed with book reviews, excellent classroom activities, events promotions and networking opportunities. In 2011, our newsletter will continue to be an invaluable resource for educators as it will be chock-full of new and exciting articles and information.

We’ve also had a terrific year of programs. Our first event took place at One Bryant Park, the new Bank of America Tower. We were able to get an in-depth tour of the facility and learned about the planning and designing that went into making it a green building. In July, we had a really fantastic program at the New York Botanical Garden, followed by a tour of the grounds. We learned about the programs offered by NYBG plus a tour of the Edible Garden. In September, we had a fabulous program at PS 57 learning about what the Horticultural Society of New York is doing at this school. This year’s Annual Meeting will be held at Central Park Zoo; we anticipate a great turn out (See announcement below).

Looking ahead, we’re in the process of developing an exciting line-up of programs. Our program committee has been working tirelessly to set up the 2011 program list. Here’s a sneak-peek at what they have in the works so far: a program at Newtown Creek, a tour of a rooftop garden in Williamsburg, a program on Governor’s Island and more. See announcement below.

Again, thank you for a memorable 2010, EEAC. Warmest wishes for a lovely holiday season and new year.

Yours,
Michelle Fufaro Beach
Chair of EEAC

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Join us for the
EEAC ANNUAL MEETING

Wednesday, November 17th 5:00-7:00pm
Hosted by the Central Park Zoo

Experience the Wildlife Theater’s interactive outreach programs and learn more about all the education programs of the Wildlife Conservation Society. At 5:30 pm, Wildlife Theatre actors will perform a show that they perform in schools, libraries and community centers throughout the tri-state area.

Network and reconnect with colleagues.
All are welcome, so bring a friend and introduce them to EEAC!

RSVP Judith Hutton judithhutton@gmail.com

Location: Zoo Gallery

Directions: [www.centralparkzoo.com/plan-your-trip/directions.aspx](http://www.centralparkzoo.com/plan-your-trip/directions.aspx)

Take the N, R, or W trains to the Fifth Avenue/59th Street station in Manhattan, and walk north four blocks to 64th Street. Or take the Lexington Avenue #6 train to the 68th Street/Hunter College station, walk west 3 blocks to Fifth Avenue, then take a left and walk four blocks south.

To learn more about EEAC visit [www.eeac-nyc.org](http://www.eeac-nyc.org)
**Book Buzz**

**Golden Flowers of the Sun: DANDELION**

*by Helen Ross Russell*

Having naturalist and teacher Helen Ross Russell at your elbow, while exploring a meadow or small patch of a city lawn, is an experience that leaves an indelible print on the mind. Helen has so many decades of nature lore and stories in her repertoire, they flow out of her in an endless stream. Those of us who were fortunate to be on the learning end of her teaching over the many decades, can recapture those moments in the pages of Helen's most recent book, Golden Flowers of the Sun—Dandelion. As the text unfolds, it’s like hearing her voice in your ears.

The book is profusely illustrated by MJMcFalls and tells diverse stories about the ubiquitous dandelion, elevating it from weed status, to multi-purpose. Who knew that its roots were edible and even saved whole populations from starvation when all of the green parts of all of the plants were devoured by hordes of grasshoppers!

Newer members should be aware that Dr. Russell is one of the founding members of EEAC and the author of MANY best-selling books about teaching nature. The only way to obtain a copy is to order it directly from Helen Ross Russell by sending your check for $25 to 44 College Drive, Jersey City NJ 07305.

*Lenore Miller*

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**News-A recap on NAAEE International Conference in Buffalo, NY**

The 39th Annual Conference of the North American Association for Environmental Education (NAAEE) in Buffalo, NY was a huge success. Almost 1,000 participants from over 14 countries participated in the conference, enjoying many sessions about environmental education in the business sector, in schools, and professional development.

Teacher Environmental Education Preparation (TEEP), a project of EEAC, hosted a pre-conference workshop to highlight TEEP efforts and ideas on how to merge TEEP goals with the No Child Left Inside's Environmental Literacy Plan requirements for states.

Tom Chapin, Lois Gibbs, and Chief Oren Lyons entertained the conference crowd with music, the history of the environmental justice movement, and reasons why we do what we do to protect the environment. These three local heroes enjoyed mingling during other parts of the conference as well, making themselves available to chat with anyone.

Ten trees were re-planted as a local carbon-offset program with Re-Tree Western NY, an all-volunteer organization working to replant thousands of trees lost in a storm that hit a few years ago. Also, conference participants donated hotel toiletries to local women’s shelters.

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**Resources & Activities**

**UN Year of Forests – 2011**


The United Nations has declared 2011 the Year of Forests, with a Forum on Forests to be held in New York City during January 24 – February 4, 2011. The above website will have a calendar of events around the world to celebrate forests. Any organization can add an event, whether it is an annual event with a forest twist or a specific event to celebrate forests. Check back often to see events in your area.

You can also learn more about forests, international and local, and about the forum at www.un.org/esa/forests/.

In preparation for the Year of Forests, Project Learning Tree (PLT, www.plt.org) has revamped one of its activities, the Environmental Exchange Box, to have a forest theme (see the next few pages of the newsletter for the activity). The premise of the activity is to get two classes (or schools) to create a model of their local environment, or for 2011, their local forest, and exchange it with another class. This may be a short-term or year-long project.

Note: For more information about Project Learning Tree in New York, visit www.dec.ny.gov and search Project Learning Tree. Or you can contact the New York City PLT Coordinator, Betsy Ukeritis, at baukerit@gw.dec.state.ny.us or 718-482-6404.
Environmental Exchange Box

The United Nations General Assembly has declared 2011 as International Year of Forests. To celebrate, students prepare an environmental exchange box to learn more about their local forests, forests across the country, and forests around the globe.

**OBJECTIVE**

- Students will discover the characteristics of local forested areas, which may include woodlands, urban forests, schoolyard trees, and/or Tree Farms, and compare these characteristics to the forested areas of another region.

**GETTING READY**

Before doing this activity, you’ll need to find another group to exchange with—and we can help! Just fill out the form on the next page (or online at www.plt.org) and send it to PLT. We’ll match you with another educator. Be sure to allow at least four weeks for a match.

**2011 INTERNATIONAL YEAR OF FORESTS**

To celebrate the Year of Forests, plan and conduct a forest exchange. Collect items, samples, data, facts, and reports that will teach your exchange partners about the forests of your region. Include information such as tree species and size, topography, soil type, plant and animal life, endangered or threatened species, shrub density, ground cover, tree products, forest use and management, and local forest issues.

**DOING THE ACTIVITY**

1. Once you get the name and address of your “exchange partner,” tell the students that they are going to exchange “forests” with students in another region. Explain that the students you’re exchanging with will not know much about your local environment. It’s the responsibility of your group to prepare items for the box that will teach your exchange partners about forests in your region.

**Safety**

Many states have laws regulating the types of plant and animal materials that can cross their borders. Be sure to check with the state or county department of agriculture or a local office of the agricultural extension service to find out about restrictions in your exchange partner’s state before you send any plant or animal materials.

2. Brainstorm with the students a list of items to include in the box. Then have the students divide up the responsibilities of researching, collecting, and preparing materials for the box. The students might want to consider some of the following items:

- Student written descriptions.
- A collage of pictures of your local forest ecosystem (urban, suburban, or rural), taken by the students or collected from newspapers, books, or magazines.
- A book with drawings of local trees, other plants, or animals.
- Photographs of your group and your school or meeting area.
A video which also records local animal sounds.
Stories written by the students about their favorite things to do in a forest or near trees.
Samples of special, non-perishable regional foods, such as maple syrup from Vermont, almonds from California, or pecans from Georgia.
Descriptions and pictures of regional cultural events, such as Arbor Day celebrations or Fall Foliage festivals. Representative natural objects from your area such as tree leaves, nuts, and cones; pressed flowers; and rocks (see safety note).
Audio recordings of natural sounds or students’ reports.
A field guide, prepared by the students, to neighborhood trees.
A description of local environmental issues relating to forests and forest management and news articles on all sides of the issues.

Email can facilitate spontaneous communication and learning between the two classes.

3. While you’re waiting for the box from the other group to arrive, ask the students what they know or have heard about the region they’re exchanging with. Can they name major cities, geographical landmarks, or other features of the region? What do they think the climate is like there? Record the students’ ideas on the board.

4. When the box arrives from your exchange group, open it with the students and examine its contents. Then have the students compare that region to their own. For example, how do the climates compare? What kinds of animals and plants live in both places? Are there differences in the ways people live?

Use a webcam to facilitate the exchange. This way, students can explain the contents of the box they prepared as their exchange partners discover the items within it.

5. Have the students create a representation of what they liked most about the other forest or what they imagine it would be like to live in the exchange group’s area. For example, students could draw pictures that depict their favorite item from the box or that show a scene in the other region. Or they could write down their impressions of items from the box in creative ways. For example, they could write stories about their imaginary adventures in their partner region.

6. Have all students in your class write a short thank-you note to the exchange group, describing their impression of the box and what they liked best about it. To continue the relationship with the other group, have the group formulate a list of questions they have about items in the box they received or a list of general questions about the partner region. Would they like more information or clarity on certain items? They can send the letters and questions to their partner group and wait for a reply.

**Enrichment**

The concept of conservation can be discussed using the exchange box your group made. What actions could be taken to conserve the forests and other resources used to make the products that they put in their exchange box?

Contact your local newspaper for coverage of the opening of your exchange box. Students could write a press release (see Activity 60, “Publicize It!”).

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**Exchange Box Form – 2011 Year of Forests**

Name

School/Organization

Address

City/State/Zip

Telephone Number (include area code)

Grade Level/Age of Students

Email Address

Preferred state or region with which you would like to exchange (not guaranteed)

Return this form by mail, fax, or email to:

Project Learning Tree
American Forest Foundation
1111 19th Street, NW Suite 780
Washington, DC 20036

Fax: 202-463-2461
Email: information@plt.org

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READING CONNECTIONS

Dundy, Melanie Richardson. *Forests For All*. MDCT Publishing. 2005. Bo The Bull Elk and J.D. Beaver, along with many of their humorous critter friends and a couple of loggers, explain that forests, forest management, and forest products greatly enhance the everyday lives of children and their families (even if they live nowhere near a forest). Grades K-5. ISBN: 0967449111.


The North American Association for Environmental Education (NAAEE) held its 39th Annual Conference and 7th Annual Research Symposium from September 28-October 2 in Buffalo, NY at the Hyatt Regency. EEAC’s own Betsy Ukeritis, who is with the NYS Department of Environmental Conservation, was one of the four conference co-chairs. Betsy and her teammates worked tirelessly around the clock to make the conference the huge success it was. A unique aspect of the conference was that it was a collaboration between an international organization, NAAEE, and a state organization, the New York State Outdoor Education Association (NYSOEA), joined forces to present a rich menu of workshops, field trips, and meetings that left me dazzled, but grateful to have been there.

The Teacher Environmental Education Preparation team (TEEP) was represented by Mike Zamm of GrowNYC; Dr. Mary Leou of NYU; Christine Coughlin, Ph.D. candidate in the NYU Department of Teaching and Learning; Dr. Beth Klein of SUNY Cortland, and Joy Garland of the Environmental Education Advisory Council (EEAC). Mike gave a history of TEEP to fourteen participants from different parts of New York State. They learned about the promising development of cognates at the College of New Rochelle and New York University and heard about progress in developing an environmental literacy plan in collaboration with NYSOEA. Our recommendation for next steps is to reach out to college deans in order to achieve our goal: that at least one course in environmental education be required for all teachers seeking certification.

Mary, Beth, and Christine presented a summary of the NYSOEA roundtables that were held around the state on environmental literacy, and Susan Hereth from Scenic Hudson, chair of the NYSOEA Environmental Literacy Committee, discussed the status of the NYS Environmental Literacy Plan.

EEAC members who presented at the conference were: Terry Ippolito of the US EPA on Improving Fundraising through Better Grant Proposals; Brock Adler on Advocacy 101: A Tool Kit for Promoting Environmental Education and Appropriations 101: Funding Environmental Education in Congress; Beth Shiner Klein on Integrating Sustainability Education into Pre-Service Elementary and Secondary Teacher Preparation, and Christine Coughlin of NYU on Science in the Community: A Model for Promoting Environmental Literacy. Christine and Mary presented a roundtable session entitled: Exploring Place-Based Education and Theory through a Study Abroad Program. Meg Domroese, of the American Museum of Natural History and one of the editor/proofreaders of the EEAC newsletter, served on the Conference Committee.

Everyone was treated to an evening of song with Grammy Award Winner Tom Chapin and an inspiring talk at the plenary luncheon by Chief Oren Lyons, Faithkeeper of the Turtle Clan and a member of the Onondaga Nation Council of Chiefs of the Six Nations of the Iroquois Confederacy (the Haudenosaunee).

I was impressed that the Buffalo Convention Center prepared delicious, nutritious and beautifully presented vegetarian meals at the plenary. There were no styrofoam cups, and guests at the Hyatt Regency, the hosting hotel, were told to call housekeeping if they didn’t request changes of linens, bath towels and cloths during their stay. Recycling was in evidence, and leftover food was donated to food banks or composted. Some of these “green” features were stipulations of NAAEE in order to host the conference at the Buffalo Convention Center and Hyatt. Wow, if every hotel could follow suit and every group holding a convention had the same values, wouldn’t that be great!

I came home with DVDs I was able to purchase from Bullfrog Films for $67 instead of $250 because I plan to start a film discussion night at my church beginning with “Split Estate” (dangers of hydrofracking in the watershed) and “A Sea Change: Imagine A World Without Fish”, a beautiful film about a grandfather’s concern for the world his grandson will inherit unless the older generation takes action. Winifred Scherrer of Bullfrog films is able to give the discounted price if the purchaser is not going to charge to see it, and if it is used strictly for education purposes. You can Google Bullfrog Films for a list of titles.

If you missed this year’s NAAEE conference, you can go to Raleigh-Durham, North Carolina from October 12-15, 2011 for the 40th Annual NAAEE Conference. Hope to see you there!

Scholarship Awardee Profile: Christine Coughlin, Ph.D. Science Education, NYU

Christine Coughlin, a Ph.D. candidate from New York University’s Department of Teaching and Learning, was awarded this year’s NAAEE Environmental Education Scholarship for Academic Study at the national convention in Buffalo, New York. Her research will focus on Environmental Education. Christine received her master’s degree in Environmental Conservation Education from New York University in May 2008. She is a graduate of The Pennsylvania State University where she earned her Bachelor’s degree in Philosophy and Psychology. She served as program coordinator of the Wallerstein Collaborative for Urban Environmental Education at NYU from 2006 through 2008. Christine is currently an active member of the NYSOEA Environmental Literacy Committee.
Our rainwater harvesting system was the focus of a training program for the school's teachers. They explored New York City's unique water delivery system and identified everyday ways to conserve tap water. Support from the Catskill Watershed Corporation, in partnership with New York City Department of Environmental Protection, allowed HSNY to engage teachers with training workshops, team teaching in the garden, and a water conservation curriculum challenge. Each classroom teacher competed for a “water saver” award by creating a dynamic lesson. Three selected projects featured an illustrated pop-up book; stormwater abatement cartoons in Spanish and English; and gorgeous, colorful images of water as rain, for drinking, for swimming in, and for life. To date, 60% of the school’s teachers participated in our training and 100% of them (from pre-K through grade 8) will be reached by 2011.

With a three-dimensional approach to learning, HSNY will reach over 3,500 students, teachers, and community neighbors. Our long-term goal is to effectively initiate changes in personal actions through conservation education in this school community—starting with the teachers, then the students, and finally their parents/neighbors, using the garden and the rainwater system as a vibrant teaching tool. We want to ensure that everyone learns about the distance water travels and appreciates what's involved in having clean, drinkable water so readily available. In this way, the PS 57 community will be motivated in the long term to actively conserve water as a personal choice and that this eventually becomes an automatic, unconscious response.

The Garden of Dreams feeds the full body of the school community—its brain, blood, and soul. Please feel free to experience the project for yourself, on East 115th St. between 3rd and Lexington Avenues, in the heart of New York City's urban jungle.
MEMBERSHIP APPLICATION 2010-2011

☐ New Member  ☐ Renewal

Name: ____________________________________________
Address: __________________________________________

Apt. _______ Zip Code ________-
If Sustaining Organization, Name of Contact Person

________________________________________________
Business Phone (     )___________________________
Home Phone (      )_____________________________
Affiliation (for categories other than Sustaining
Organization): ____________________________________________
Title/Position: ____________________________________________
Address (for categories other than Sustaining Organization):

____________________________________________________
E-mail address: ____________________________________________

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)

Name: _____________________________________________
Address: __________________________________________
________________________________                       ______
Apt. ________  Zip Code _ _ _ _ _- _ _ _ _
If Sustaining Organization, Name of Contact Person

__________________________________________________
Business Phone (     )_______________________
Home Phone (     )_______________________
Affiliation (for categories other than Sustaining Organization): ____________________________________________
Title/Position: ____________________________________________
Address  (for categories other than Sustaining Organization):

____________________________________________________
E-mail address: ____________________________________________

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

Please e-mail Betsy Ukeritis at baukerit@gw.dec.state.ny.us if you want future EEAC newsletters sent to you electronically.