

EEAC MEETS AT THE QUEENS BOTANICAL GARDEN



Our first meeting and event of the year took place mid-September at the Queens Botanical Garden. (Special thanks to Patty Kleinberg for hosting us!) The meetings we hold at other sites (known as hybrid meetings) around the city bring us together to learn new things and support the work of our colleagues.

We had a very nice turnout, and Gennadyi Gurman from the Education Department gave us a very informative tour of the new Administration Building. These new green buildings and sustainable landscapes at the Queens Botanical Garden work with nature to create systems that promote human and ecological health. For those of you who missed this trip – let me tell you a little about it....

The recent sustainability efforts at the Garden amount to much more than just the building; it is, in fact, an entire landscape. Sustainable practices in design, construction and operations are now central to the Queens Botanical Garden's mission. These practices support environmental stewardship, long-term financial viability, and the health of visitors, staff and the community.

Spring 2007 saw the completion of the new Horticulture/ Maintenance Building, a Visitor/Administration Building designed to attain the highest (platinum) Leadership in Energy and Environmental Design (LEEDTM). These buildings and landscapes provide new places for the community to gather and enjoy comfortable and inspiring spaces created by considering sun, wind, water and plants. By regenerating the native ecology and using materials, methods and technology that reduce the negative impact of new structures on the environment, the Garden is demonstrating and promoting more sustainable development.

The Visitor/Administration Building

This building's long and narrow design allows 90% of the interior space to receive daylight and maximize natural ventilation. The building's materials and furnishings incorporate a high percentage of recycled content and over 20% are produced within 500 miles. Over 75% of the waste produced during construction has been diverted from the landfill through recycling and reuse.

Seasonal heating and cooling is provided by a geothermal system. Water from an aquifer 300 feet below is pumped into the building. This water maintains a 55°F temperature throughout the year. A heat exchanger can detect the difference between that and the temperature of the interior space and heats or cools the water in the HVAC system for comfort. A geothermal system uses less energy than a conventional furnace or air conditioner and eliminates the need for burning fossil fuels on site.

Rooftop photovoltaic cells transform sunlight into enough energy to provide almost 20% of the building's electricity needs. These cells are made of thin layers of silicon pressed together. When sunlight strikes the surface of the cell, it excites the electrons within, causing them to move from layer to layer, producing electrical current.



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EEAC's New Web site: www.eeac-nyc.org

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 December 17, January 21, 2009, February 18, 2009.

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 John Lancos Regina McCarthy Lenore Miller, Newsletter Editor Betsy Ukeritis Jill Weiss





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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:

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IN MEMORIAM—JOAN ROSNER

In 1975 Joan and Hy Rosner retired from their respective professional careers, Joan as a New York City Community District Science Coordinator and Hy as a New York City Welfare Department social worker and Chairperson of Community School District 25 in Queens. They prepared to relocate to Albuquerque close to their daughter, Lynn Rosner, and to spend time in Miami with their daughter Suzi Doucha, and her husband Roger and family. At that time, a local Queens newspaper ran a laudatory story about their many accomplishments with the headline Mr. and Mrs. Environmental Education. Indeed, their achievements are a history of environmental education in New York City.



never expected more from anyone than what she was prepared to give of herself. We who worked with her learned from her example and she brought out the best we had to offer. Who could resist her soft, smiling manner wrapped around her strong convictions?

Joan's activism made the world a better place. She organized a protest when there was a proposal to build a new airport runway into Jamaica Bay which would have had a harmful effect on the Jamaica Bay Wildlife Refuge. She rallied support for the establishment of Gateway Environmental Study Center, which provided an opportunity for New York City school children

Joan and Hy were pioneers in the field. They were founders of Alley Pond Environmental Center; organized the Mohonk Conference on Environmental Education, which evolved into the Environmental Education Advisory Council; developed the Children's Natural Science Workshop leading to the establishment of Gateway Environmental Study Center; created and directed the Watson Workshop for Teachers. Together they collaborated with cultural institutions such as the American Museum of Natural History, Wave Hill and the Queens Botanic Garden. They reached out to industry, e.g. Consolidated Edison of New York, to support their good works. Their efforts reached hundreds of thousands of students and teachers in metro New York.

There was a large gathering of the people whose lives they touched at their farewell dinner so many years ago. I was honored to be one of the speakers that evening. I searched for the appropriate words of tribute then, just as I now search to express my feelings of personal and professional sadness at the loss of Joan Rosner seven years after her beloved husband. Then, as now, I turn to the poet James Russell Lowell who wrote, "Not what we give, but what we share—for the gift without the giver is bare."

Joan, in loving partnership with Hy, gave of herself by sharing her talents, her intellect, her determination, her dedication, her creativity and her love and interest in the world around her. She



and teachers to learn in the outdoors where they could see the horizon.

In New Mexico and Florida, Joan and Hy continued their efforts. In Florida they co-edited The Dade County Environmental Story and were honored as volunteers for the Senior Mentor for Creative Students Program. *Albuquerque's Environmental Story, Educating for a Sustainable Community* was first printed in 1978 and is described as "an award winning teaching resource." Former Mayor Jim Baca was quoted in the Albuquerque Journal, saying about Joan, "She was sort of a pioneer, and so was her husband. They were really onto this a lot sooner than most people were, on the importance of how cities should function. They were way ahead of their time."

In recent years Joan worked on her autobiography and it is now being published. In addition to her public persona, it tells of her private life, the sadness of the tragic loss of her daughter Lynn, her husband, her granddaughter Amy Doucha, and her devoted son-in-law Roger Doucha. Joan persevered as well as her failing health allowed. She died on September 17 a few hours short of her ninetieth birthday.

Joan was my mentor, my role model, my friend. She broadened my horizons and changed my life. I will be forever grateful for having had the benefit of knowing her. Her memory will remain as an example of a life well-lived. Joan and Hy Rosner made the world a better place. They will be deeply missed and lovingly remembered.

Ruth Eilenberg, October 6, 2008

Make Earth Day Everyday

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By Michelle Fufaro

Cleaning your home may seem like a chore, not only because it's work, but it can seem like even more work if you want to be green about how you clean. However, there are some simple ways each of us can be a little more earth friendly when cleaning the nooks and crannies of our living spaces. Below is a list of cleaning products you can probably find right in your kitchen and a list of ingredients to avoid when you purchase commercial products. Since your body is YOUR personal environment, toxic or dangerous ingredients are listed as well.

Kitchen ingredients:

Baking soda: (sodium bicarbonate): good for scrubbing; reacts with water, lemon or vinegar to make for a stronger cleaning agent

Borax: an old favorite when doing laundry as it can bleach, disinfect and remove odors (can cause skin irritation-avoid direct contact)

Distilled white vinegar: good disinfectant (white vinegar doesn't stain as other vinegars can)

Hydrogen Peroxide: use to disinfect and can work as a bleach alternative

Lemon: works well to remove and dissolve grease

Olive oil: great for polishing wood

Vegetable based (liquid castile) soap: all-purpose cleaner; Dr. Bronner's has a variety of scents and one bottle lasts a long time

Washing soda (sodium carbonate): has a multitude of uses – all purpose cleaner, stain remover, or , to unblock clogged pipes; however, it is caustic, so wear gloves and long sleeves when using

Ingredients to avoid:

Alkylphenol ethoxylates: (APEs), often found in detergents and disinfectants; it is theorized that they can be hormone disruptors.

Ammonia: can irritate the respiratory system when inhaled and can cause burns on the skin. Should not be swallowed.

Butyl cellosolve: (aka butyl glycol, ethylene glycol monobutyl) is poisonous when swallowed and can irritate the lungs.

Chlorine bleach: (aka sodium hypochlorite) can cause irritation in lungs and eyes.

Diethanolamine: (DEA) can produce carcinogenic nitrosamines that penetrate skin.

Fragrance: frequently contains phthalates which are linked to reproductive abnormalities, potential cancer of the liver and asthma in children.

Phosphates: contribute to algae blooms in waterways which can kill fish populations.

Sodium hydroxide: (lye) is extremely irritating to eyes, throat and nose and can burn tissues on contact.

Sodium lauryl sulfate: can penetrate the skin and cause contact dermatitis.

Be sure to read the list of ingredients on all of the cleaning products you purchase!

Recommended book for every household: *Clean & Green: The Complete Guide to Nontoxic and Environmentally Safe Housekeeping* by Annie Berthold-Bond



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Environmental Education through Literacy: *The Lorax*

Created by: NYSDEC Educators

Take the time to read the Dr. Seuss story The Lorax aloud to your class. You will see that this story is much deeper than it initially appears. It is a great book to read after students have participated in a study of ecology when they will be able to make connections between what they learned and the story.

Discussion Questions:

- How did the Swomee-Swans, Brown Bar-ba-loots, Humming-Fish live before the Once-ler came? Think of all the changes that occurred after the Once-ler arrived.
- What role did the Truffula trees play in the ecosystem?
- Why did the Swomee-Swans, Brown Bar-ba-loots, and Humming-Fish leave?
- Would the Swomee-Swans, Brown Bar-ba-loots, and Humming-Fish have been able to keep living in the forest if the Once-ler did not cut down all of the Truffula Trees? How many Truffula trees could the Once-ler cut down?
- List three things the Once-ler could have done to prevent the Swomee-Swans, Brown Bar-ba-loots, and Humming-Fish from leaving.
- What kind of problems does the Thneed factory cause for the environment? Name at least three.
- Were the Truffula trees a renewable resource?
- Why was the Super Axe Hacker invented?
- A "Thneed" is defined as a fine thing that everyone thinks they need (but probably really doesn't). What are some examples of thneeds things that we think we need but could do without?
- Is bigger always better? Give an example to back up your opinion.
- What do YOU think the Lorax's message "UNLESS" means?
- Why did the Lorax speak for the trees?

Activities:

- Talk about what you would say to the Once-ler if you were the Lorax. (If the students can write, have them write one or two sentences about what they would say to the Once-ler.)
- The Lorax spoke for trees because "the trees have no tongues". What would you choose to speak for, and what would you say? Plan a one minute (or 30 seconds) talk on behalf of something which cannot speak for itself.
- Create a collage of "thneeds" (things that we think we need), by cutting pictures from magazines. Discuss what resources are involved in making those products. What are the potential effects the removal of those resources may have on the ecosystem?
- Look for ads in magazines that resemble the Once-ler's Ad for the Thneed. Discuss the effects those ads have on people's definition of "NEED". Which ads target needs and which target wants?
- Brainstorm the way trees can be used. What types of things do you use trees for? Where do the trees come from? What materials are made from trees? Are there other materials you can use to reduce your use of tree products?
- Brainstorm earth friendly alternatives for Thneeds.
- Discuss ways people can harm and help the earth.

Concepts:

Carrying capacity Economics Growth Pollution Habitat loss Needs Power of the individual (UNLESS) Species needs, survival requirements Sustainability Renewable resource Management practices Development Self interest Ecology Ecosystem Over-consumption HOPE

Be sure to leave this lesson on a positive note. Help students understand that they have the power to make the world a better place. We all do.

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Student Highlight

Natalie Garcia Future Environmental Policy Maker

Natalie Garcia is a 17-year-old teen from the Bronx who is excited and eager to dive into the environmental field. A recent graduate of Preston High School, a small, all girls Catholic school in Throgs Neck, Queens, she is a freshman at SUNY College of Environmental Science and Forestry this fall. Her major is Environmental Policy.

Natalie's interest in the environment began when she was a little girl and she would help her grandfather in his garden at his home in Monticello, New York. She said she loved being outdoors and getting the opportunity to touch and discover things while working with the plants. She maintained this interest in the natural environment throughout her formative years. When Natalie was in the 10th grade, she applied for a summer internship opportunity as a Plant Science Intern at Wave Hill. In this role, she was able to learn all about trees, including tree anatomy, health and identification, as well as general botany and plant ecology. Natalie said she learned so much in this internship that she applied to become a Geographical Information Systems (GIS) intern the following summer. As a GIS intern, she gained experience working with the Global Positioning System (GPS) and learned various mapping techniques and methods that she applied to actual restoration projects along the Hudson River. In addition to gaining valuable experience and knowledge working with GIS, Natalie also developed her leadership skills as she was given the responsibility of training other interns in mapping programs.

This past summer, Natalie was a Junior Crew Leader with responsibility to oversee new interns and assist them with street tree pruning and obtaining their pruning licenses. In this role, Natalie was able to sharpen her leadership skills, which she says she will apply to her college career. Natalie hopes her interns this summer benefited from the program at Wave Hill the way that she did. Her goal has been to help them to understand, love and appreciate our environment. Natalie has determined that change is necessary and that we are the ones that can and will make it happen. She hopes she passed this passion and determination on to her interns.

At SUNY ESF, Natalie plans to major in Environmental Policy as she feels this is the best way to instill change in our society. When she graduates, Natalie hopes to obtain a position where she will play a key role in creating laws that will have a lasting positive impact on our environment. She believes that policy and law making will lead us on a path to a healthy and hopeful future for our environment. Natalie's goal is to be one of the major players, either as a member of Congress or a high status politician, so her voice will be heard in the environmental movement.

Natalie is a young woman who has clear goals and aspirations for her future. It's encouraging to know we have such a strong, dedicated individual to rely on for future environmental policy making. We need more young people like Natalie to ensure the future of our environment. She will be the ideal role model for her future interns and we wish her the best at SUNY.

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Book Buzz

Regina McCarthy

In this column of our last issue, I mentioned *The Tale of Pale Male* by Jeanette Winter. I have become one of her fans. One of the hardest things about writing children's books is keeping your text brief and simple. Jeanette Winter has a gift for this.

So I was drawn to another book by Winter, which provides a great example of this gift: *Mama*. Based on a true story, *Mama* is about a baby hippo who was separated from its pod during the tsunami at the end of 2004. As I learned recently, a group of hippos washed down a river to the ocean in Kenya. The lost hippo was taken to a wildlife refuge and placed with a giant tortoise who became its surrogate mother. The author is able to tell this story through pictures. The only words used in the text are "mama" and "baby". The Author's Note at the end of the book gives a detailed description of the story. It is a perfect book for any pre-kindergarten or nursery program. *Mama* could be used for classes up to second grade. Winter is a gifted illustrator whose colorful, stylistic drawings engage young readers.

Another of Winter's books is *Wangari's Trees of Peace: A True Story from Africa*, the story of 2004 Nobel Peace Prize Winner Wangari Maathai. The front page of the book begins with this wonderful quote from Maathai:

"The earth was naked. For me the mission was to try to cover it with green."

Like Winter's other books, her simple stylistic drawings are engaging and she lets the text carry the story. The Author's Note at the end of the book gives more background on Maathai. I would recommend this for kindergarten through third grade.



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Queens Botanic Garden

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This building also features a green roof...a roof covered in vegetation that can provide habitat for birds and insects and reduces urban heat island effect. It provides storm water control, added insulation and roof protection. A special membrane is below the plants to help channel the water and protect the building from root damage and leaks. Because it is on top of a building that must be safe under all weather conditions, regular soil may be too heavy or difficult to maintain. Therefore, plants are grown in a synthetic, soil-like medium. Medium to smallsized, low maintenance, native plants are used. Sedums are common. Since the roof slopes down to ground level, the public may enjoy this feature first hand while having views of the rest of the garden. Water is conserved, collected, cleansed and recycled in buildings and landscapes throughout the Garden. Low maintenance, drought resistant plants are used in Garden landscapes to reduce the need for irrigation. Throughout the project, rainwater is filtered and absorbed into the soil through bioswales instead of entering the city's combined sewer, reducing pollution in Long Island Sound.

Graywater from the building's sinks, dishwashers and floor drains is piped to a constructed wetland, while rainwater cascades off the terrace roof into a cleansing biotope. In both places, water is filtered and treated naturally through bacterial activity on the roots of carefully selected plants. The treated graywater is returned to the building for use in toilet flushing, while the cleansed rainwater supplies a meandering water feature and fountain.

Rainwater that falls on the Horticulture/Maintenance Building is collected and stored in an underground cistern. A piping system connects this cistern to the building's storage and garage space, where the water is used to wash vehicles and tools.

I encourage you to visit the Queens Botanical Garden on your own, and return often to see the changing landscape unfold!

The Queens Botanical Garden is located at 43-50 Main Street (and Dalia), Flushing, NY 11355

For visitor information please visit their website: www.queensbotanical.org or phone 718-886-3800.



Resources

Careers in Forestry & Natural Resources

http://forestrycareers.org/

This NSF-supported project helps middle and high school students find information on forestry and natural resource education and career information.

Project Learning Tree and Earth & Sky Radio Show Presents: 2008 Forest Series

http://www.earthsky.org/

Listen to the Earth & Sky Radio Show online or find a radio broadcast in your area to hear from scientific experts about issues including climate change, habitat loss, clean water, and forest sustainability. The Earth & Sky Radio shows and podcasts have been correlated to Project Learning Tree (PLT) activities and provide educators with access to accurate, reliable and understandable scientific research and data.

Valuable Learning Experiences at Science Centers and Museums

http://www.ecsite-uk.net/reports/

This European network of Science Centers and Museums report, The Impact of Science & Discovery Centres, concludes that visits to museums and science centers create memorable learning experiences that reinforce knowledge and encourage interest in science education and careers.

Grants, Activities, News on the National EE Week Site

http://www.eeweek.org/

The 2009 National EE Week is April 12-18. There are always great activity ideas, grant opportunities, and news stories on the EE Week Web site. Get a head start on planning by registering now.

Save the Dates! International

5th World Environmental Education Congress Montreal, Quebec – May 10-14, 2009

The World Environmental Education Congress movement arose out of a desire to create a forum for dialogue and synergy among educators from all sectors of the field, including schools and universities and from national, regional and international organizations, associations and networks.

National Association for Interpretation 2009 National Conference

Hartford, CT - November 17-21, 2009

NAI's annual workshop brings together more than 1,000 interpreters to train, network, share ideas and enjoy a different part of the country.

New York State Outdoor Education Association NYSOEA 2009 Conference

Fishkill, NY - September 24-27, 2009

NYSOEA's 2009 conference will focus on the "Bounty of the Hudson River Valley" and help celebrate the quadricentennial celebration of Henry Hudson's journey up the river.

New Member Renewal Name: Address:	Date: Please check the appropriate calendar year membership category:
Apt Zip Code If Sustaining Organization, Name of Contact Person	 \$ 20 Regular \$ 50 Sustaining Organization \$ 200 Individual Life Membership
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Address (for categories other than Sustaining Organization): E-mail address:	 Commutees: Communications Programs Members TEEP (Teacher Environmental Education Prepar

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