



EEAC

FALL/WINTER 2012-2013

ENVIRONMENTAL EDUCATION ADVISORY COUNCIL NEWSLETTER

City Parks Foundation *by Jacqueline Pilati*



City Parks Foundation (CPF) uses the natural resources of the city's parks and urban forests to spark learning and invigorate communities across the city. Founded in 1989, CPF works toward the creation of vibrant, active city neighborhoods and parks. As the only independent non-profit organization to offer parks programs throughout the five boroughs of New York City, CPF produces free high-quality education, arts events, sports, and community-building programs in 750 parks citywide. CPF's programs enrich the lives of more than 600,000 New Yorkers each year, by ensuring that all of New York City's parks fulfill their potential as vibrant centers of community life and sites for active inquiry-based learning.

CPF's youth-focused environment-based education programs connect students, teachers, and community members to their local public parks, waterfront, urban forests, and community gardens through hands-on lessons that meet specific community needs and adhere closely to public educational curriculum requirements. Through hands-on activities, students are able to learn core academic subjects and acquire important critical-thinking and decision-making skills while discovering the natural world in their own neighborhoods. All of our programs provide young people with the opportunity to learn about the urban environment, connect with their

communities, build self-confidence in their ability to affect change, and develop valuable leadership and life skills. CPF targets schools and community groups in some of the most underserved areas of New York City, so that these enrichment opportunities reach students and communities most in need.

CPF's four core environment-based education programs are:

- **Seeds to Trees**
- **Learning Gardens**
- **Coastal Classroom**
- **Green Girls Summer Institute**

City Parks Foundation's Environment-based Education
CPF's environment-based education programs are conducted in parks and natural areas across New York City and are part of a growing sector of environmental education that makes use of the many natural environments available in the urban context to teach science concepts and ecological principles. While environment-based education has traditionally focused on pristine natural settings, increasingly, educators are recognizing that in urban settings, dynamic ecological relationships are constantly at play, providing an ideal opportunity for scientific investigation.

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EEAC NEWS.....

Steering Committee Meetings

Meetings are held on the third Wednesday of every month except in August. Upcoming EEAC Steering Committee meetings are October 17, November 14, and December 19, 2012. Steering Committee meetings are held at New York University (NYU) 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 locations 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

Kim Estes-Fradis
Michelle Fufaro Beach
Joy Garland
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Lenore Miller, Newsletter Editor
Betsy Ukeritis



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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* Affiliation for identification purposes only

GET CONNECTED!

The EEAC listserv has migrated to a new home at EEAC-NYC@googlegroups.com. If you are a member of EEAC and would like to join the listserv contact Carol Franken at carolfranken@gmail.com

MESSAGE FROM THE CHAIR

Dear EEAC,

What a time to be going back to school! The weather is cooling, the busy season is starting up again for most of us, and the weather can throw some crazy things at us. But don't lose sight of the reasons why we do what we do: get outside and just breathe a moment or two of peace for yourself every now and again... then rejoin the hustle of life. Teach students, teachers and the general public why it is so important to protect our environment and help it along!

Some dates to remember as the Fall begins to fly by: EEAC meeting at NYU on October 17th from 5-6 pm and the Annual EEAC Meeting is November 14th from 5-7pm. I know the programming committee is working on a fantastic topic for the Annual meeting you won't want to miss, so get it on your calendar early!

Enjoy the weather, all, and I hope to see you out in NYC's amazing environment soon!

Cheers,
Betsy Ukeritis
EEAC Chair



EE RESOURCES

The EE tidbits for this issue feature on-line resources of personal or professional interest.

<http://neoninc.org/budburst/index.php>

Project Budburst, PBB, a Citizen Science study of plant phenology accepts one-time or ongoing data collection. The tag line sums it up nicely – “timing is everything”.

From About PBB: We are a network of people across the United States who monitor plants as the seasons change. We are a national field campaign designed to engage the public in the collection of important ecological data based on the timing of leafing, flowering, and fruiting of plants (plant phenophases).

The Education pages have curricula for formal and informal K – 12 educators plus PBB Academy with professional development for educators. Register your classroom or institution to join a budburst community of citizen scientists.

PBB has introduced a mobile app for Android platform smart phones (no iphone yet) which features plant lists and links to plant databases and uploading of your observations.

<http://www.hiltonpond.org/default.htm>

Bill Hilton at Hilton Pond Center for Piedmont Natural History shares his keen observations of his local environs on a nature blog with magnificent macro-photography and well researched descriptions and explanations of the phenomena. He's way down in South Carolina, but the flora and fauna he details are familiar here in the southern part of New York. Several years of Hilton's observations are archived on his web site. Join his email list, and his photo essays will land in your email.

Lynn Cole

Staten Island Teacher Wins Prestigious EPA Environmental Educators Presidential Award



*(Editor's Note) The Staten Island community is indeed blessed with two outstanding Science/ Environmental Educators....**SISTERS**. Featured in an article on this page is Patricia Lockhart who teaches at P.S. 57 which serves a neighborhood of immigrants from Africa (many Liberians). Her sibling, Mary Lee, teaches middle school at St. Clare's School, a parochial school (which attracts many families BECAUSE Mrs. Lee teaches there). The article on the next page, reprinted from the Staten Island ADVANCE, is only one of many school projects involving hands-on participation that keep Mrs. Lee's students excited about school and actively engaged in citizen science. LM*

Following is an excerpt from the nomination essay for the award, a small glimpse into her efforts.

Ms Lockhart brings science to life for her students and partner schools by engaging them in numerous real life hands-on outdoor environmental education programs and projects. The secret to her success is her personal immeasurable passion and drive. For over 15 years she has continued to attend professional development workshops and summer institutes to enhance and enrich her programs. She basically creates her own ongoing eclectic curriculum drawing from these professional development experiences while simultaneously integrating school science requirements. In addition to writing and coordinating science grants at the school, she even formed a volunteer environmental education non-profit (Eibs Pond Education Restoration Program Inc). This non-profit connection enables her to tap into additional funding sources, programs and training opportunities to supplement these projects at the school, nearby parks and community. She has also formed a strong leadership role coordinating school wide projects with PS 57 and public/private partner schools (St Clare's, Eltingville Lutheran School, Tottenville HS locally and Margaretville Central School upstate). She even spends time encouraging and training fellow educators to initiate programs in their own schools.

Ms Lockhart coordinates specialized projects which include: School Gardens (flower, fruit and vegetable), Eibs Pond Park (wetland studies), Catskills Watershed "Green Connections" (upstate/downstate partnership), Trout in the Classroom, Solar 1 Green Lab Program (energy conservation), Green Team Recycling Programs (milk cartons, paper, bottles), Robotics and STEM Learning Technology Projects (local school partners), YMCA Jr Science Rangers Program, Parks Million Trees Program, Its My Park Day (community events) and Summer Environmental Youth Leadership Program.

Honored Guests Wash Up in Our Bluebelt

It's a journey most humans only make on a jet plane or aboard a cruise ship.

Deborah Young from the April 13, 2012 edition

But every year, millions of tiny eel babies arrive in New York's inland streams as winter turns to spring. They arrive here after traveling more than 1,500 miles from the warm waters off Puerto Rico -- first as larvae adrift on currents, then as transparent, snake-shaped juveniles, thin as a strip of linguine and no longer than a thumb, undulating silently through the sea.

Since early March, "glass eels" have landed by the thousands in fishing nets in a creek in the Bluebelt, where Boy Scouts from Troop 125 and student volunteers from St. Clare School, Great Kills, release them -- counting each of their crystalline bodies as they coast over their palms into the fresh water.

"I hope 20 years from now you guys find your way back to the ocean," Chris Bowser, science education specialist for the state Department of Environmental Conservation, said. As he spoke, he held over his head a water-filled freezer bag with about 10 squiggly, glass eels, whose bodies were so transparent it was possible to see their hearts. "Long live the *Anguilla rostrata!*"

Glass eels arrive in Staten Island's Blue Belt Glass eels arrive in Staten Island's Blue Belt after traveling more than 1,000 miles from the waters of the Caribbean. The American Eel Research Project, a program new to the borough but already in other waterways across the state, allows volunteers to count the creatures during this part of their migration. [Watch video](#)

Gathered around him Thursday were several dozen school-aged children, who in just over a month's time have learned much more than the scientific name of the amazing creature: They have felt the eels moving on their skin, charted their numbers, observed how their quantities fluctuate with the cycles of the moon and developed an abiding appreciation of the ancient species, as well as the rich, natural waterways in their own neighborhoods.

"You talk about how the environment is interconnected. The eels live that interconnectedness," said Bowser. "You can find them in an urban creek, and you can find them in a rural creek. If we conserve eels, that means we're conserving so much more than eels."

The American Eel Research project this year launched the first city site on Staten Island, which joins 11 other juvenile eel data-collecting centers across the state. With more sites and more volunteers, the DEC-sponsored program has tabulated record numbers of the specimens arriving this year, even early in the season.



"The American Eel Research project is an excellent way to connect students and the community with nature while gathering research that can be valuable for their future study of this species and its role in our ecosystem," said Kathleem Moser, DEC's assistant commissioner of natural resources.

Thousands of glass eels have been trapped in a "fyke net" in the Bluebelt and counted as part of the citizen science project. Their numbers are clear indication of the health of the stream system, said Dana Gumb, chief of the New York City Department of Environmental Protection (DEP) Bluebelt system, who was on hand for Thursday's first official celebration of the Staten Island eel project.

"DEP is thrilled that the counts indicate high numbers of young American eels looking for a home in the Bluebelt," he said, noting the Bluebelt is also used as a natural filter for wastewater run-off. "This is a wonderful combination. That the stream is in good enough condition to support eels shows how clean the water is."

The project is a good way to inspire budding naturalists, said St. Clare science teacher Mary Lee, whose middle school students visit the site three times a week to count the eels.

"Kids get to see they can actually contribute," she said. "They are active scientists."

Members of Boy Scout Troop 125 have also come to know the rhythms of the eels during their weekly visits to the collection net.

"1,430!" said Robert Bailey, a fifth-grader at PS 32, Great Kills, when asked the highest number he has seen caught in any one day.

"I like how far they travel from the ocean," said his troop mate, Chris Paxis, 9, of Lighthouse Hill. "It's cool to think about. It's amazing that these little creatures are right here in this water."

(Young) (2012) (Staten Island Advance) All rights reserved. Reprinted with permission.

EEAC BOOK BUZZ FALL 2012

Living Sunlight: How Plants Bring the Earth to Life

By Molly Bang and Penny Chisholm
Blue Sky Press (Scholastic)

One of the most difficult concepts to teach to early grades is that of photosynthesis. Energy alone sends their heads spinning if not approached correctly. Yet we want them to begin to deal with this complex process early so that they can start to construct this concept in their minds. This book, with its capturing illustrations is an effort to address this task and I think the authors succeed for grades beyond third. Starting with the warmth in our bodies, it traces the sun's sending light energy to us and the life around us and then asks, "How do living things do this?"(capture that energy?) It then describes how plants capture the sun's energy. You may wish to use with younger children but expectations of understanding should be minimum. They clearly need to have a decent level of understanding of light and chemical energy before they can understand this book. My personal experiences with young children have never really gone more than dramatic play with trees breathing O₂ in and CO₂ out. Kids love to mimic you; this can be a beginning, but true understanding of this is doubtful.

There are notes about the book in the end pages that will assist teachers and parents in understanding these concepts. Teachers and parents should not approach the book without looking at these notes because the book's illustrations can be confusing without it. The teaching notes would be an excellent tool in an elementary science professional development class. The book gives us a simple explanation of a really complex concept. Although they are not mentioned in the text of the book, the notes do explain two important omissions: 1. phytoplankton which forms roughly half of the earth's photosynthesis and 2. anaerobic bacteria.

After I reviewed the major science programs in NYC schools, FOSS, SCIS and Delta, I did not see complex ideas like chemical energy introduced until after 3rd grade. So I would not recommend this book for the general school population till the end of third grade. I trust these research based programs (SCIS and FOSS) for being developmentally appropriate. I am not sure about Delta but I am assuming the DOE would not approve and fund them, which they have, unless they were research-based. My gut feeling, not research but classroom-based, is that I agree. Photosynthesis is best approached no sooner than the end of third grade. Overall, it is a beautifully illustrated book that does a wonderful job of teaching upper elementary students about this important but complex science concept.

-Regina McCarthy

NEWS YOU CAN USE: REPORTS FROM THE FIELD

Journey South Began Saturday, Sep 1, 2012

www.learner.org/jnorth/current.html

- Journey South explores the interrelated aspects of seasonal change. Changes in sunlight drive all seasonal change. Plants and animals around the globe must respond. Watch how the seasons affect the web of life - and report your own backyard observations. Journey South is an extension of the Journey North program.
- Citizen scientists can now report a broad range of data on seasonal changes.

Multicultural school gardens facilitate learning about language, culture and environment

Posted By Alex Kudryavtsev

Dr. Cutter-Mackenzie has explored learning outcomes of a school gardening program in Melbourne, an Australian city, in 2006-2007. The research program involved 70 students – recent immigrants, 6-12-year-olds – in designing, construction and implementation of a gardening program along with teachers, parents and community volunteers. This culturally focused food gardening program was connected to the core curriculum and designed specifically for underserved, multicultural children, whose first language is not English. Students participated in gardening, cooking, sharing stories about gardening in other cultures while improving English and connecting with other members of the community. Using students' journals, photos and peer interviews, as well as observations and interviews with children and parents, Dr. Cutter-Mackenzie found several impacts of this program. Qualitative data demonstrated that participation in this program increased students' sense of belonging to the local community, provided a real-life opportunity to improve English, and contributed to students' connection to the environment and their "sense of agency in protecting the environment."

SOURCE:

Cutter-Mackenzie, A. (2009). Multicultural school gardens: creating engaging garden spaces in learning about language, culture, and environment. *Canadian journal of environmental education*, 14, 122-135.

<http://cjee.lakeheadu.ca/index.php/cjee/article/view/891>

Restoration-based education enhances biodiversity and contributes to learning

Continued from page 1



Integrated environment-based education uses the natural environment as a tool to improve students' learning across disciplines. These types of programs have been shown to encourage positive outcomes, including: better academic performance, improved classroom behavior, increased engagement and positive attitudes toward learning, and greater pride in and ownership of the learning process.⁻¹⁻ Students in programs that use integrated environmental approaches often become enthusiastic, self-motivated learners with a more complex understanding of the world and the interactions between systems, and better developed and tested inquiry and problem-solving skills. Studying science concepts in a natural environment a short distance from home or school, render seemingly abstract or conceptually complex topics, such as the effects of

pollution on plant growth or water quality indicators, immediately and tangibly relevant. As students observe these topics play out in front of them and gather evidence and draw conclusions, content becomes more engaging and meaningful. As a result, students are more eager to participate in learning activities and they tend to retain more information following completion of these activities. Focusing on making use of natural areas within the city, we make environment-based education available and accessible to a diverse community. The hands-on, active nature of these activities also makes them particularly well-suited to participants with attention disorders and adaptable to students of varying needs and abilities.

⁻¹⁻ Lieberman, George A. and Linda L. Hoody. "Closing the Achievement Gap – Using Environment as an Integrating Context for Learning." State Education and Environment Roundtable. 1998. p. 1

News You Can Use: Reports from the field-continued from page 6

Posted By Alex Kudryavtsev

Restoration-based education (RBE) can create "learning landscapes to enhance biodiversity and engage learners in significant ways where they live." This book chapter provides examples of school greening, civic ecology, and community greening programs. Through integrating these examples with the academic and practical literature on RBE, the author concludes that by involving people of all ages in restoring native habitats, environmental educators may support both individual (e.g., contribute to sense of place, community participation, and pro-environmental behavior) and ecological (e.g., biodiversity, and ecosystem health) outcomes.

SOURCE: McCann, E. 2011. Restoration-based education: teach the children well. Pages 315-334 in D. Egan, E. E. Hjerpe, and J. Abrams, editors. Human dimensions of ecological restoration: integrating science, nature, and culture. Island Press, Washington, D.C.



Green Horizons

October 18th at New York Botanical Garden.

Contact Nancy Wolf at (718) 834-4589

or jlnwolfinc@aol.com



MEMBERSHIP APPLICATION 2012-2013

New Member Renewal

Name: _____

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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):

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Mail completed form and check to:

John Pritchard, Treasurer, EEAC, 72-35 Metropolitan Avenue, Apt. 2C, Middle Village, NY 11379.

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)



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